Rural Counties
Environmental Services
Joint Powers Authority
ESJPA

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY
VICE CHAIR – DENISE CARTER, COLUSA COUNTY
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)
TAG CHAIR – VACANT
TAG VICE CHAIR – TODD STORTI, BUTTE COUNTY
PROGRAM MANAGER – STACI HEATON

Rural Counties' Environmental Services Joint Powers Authority
Board of Directors' & Technical Advisory Meeting
California Chamber of Commerce
1215 K St., 14th Floor
Sacramento, CA 95814

Thursday, March 12, 2020 9:00 a.m. – 3 p.m.

Only those items that indicate a specific time will be heard at the assigned time. All other items may be taken out of sequence to accommodate the Board, the staff, and the general public. Indicated time allocations are for planning purposes only and actual times will vary from those indicated.

I. Call to Order, Self-Introductions, and Determination of Quorum

II. Business Matters **Page 1**

Discussion and possible action related to the following:

A. Approval of Minutes from the Meeting of December 12, 2019 – Supervisor Michael Kobseff, ESJPA Chair *(pp 3-9; 5 minutes)*

B. Election of the 2020 ESJPA/TAG Chair and Vice Chair – Supervisor Michael Kobseff, Siskiyou County *(page 11; 5 minutes)*

C. Administrative Matters – Staci Heaton, ESJPA Program Manager *(5 minutes)*
- 2020 Delegate and Alternate Roster *(page 13)*
- FPPC Form 700

III. Public Comment

Any person may address the Board on any matter relevant to the Authority's business, but not otherwise on the agenda.

IV. Presentations **Page 15**

A. SB 1383 Model Tools Overview – Tracy Swanborn, P.E., HF&H Consultants, LLC. *(30 minutes)*

B. Recycling Market Development Zone (RMDZ) Program – Frank Severson, Senior Environmental Scientist, CalRecycle *(pp 17-25; 25 minutes)*

C. Report from CalRecycle – Marshalle Graham, Senior Environmental Scientist, CalRecycle *(10 minutes)*

V. Legislative Update **Supplemental Package**

(This item may be heard at any time during the meeting depending upon the availability of staff) Discussion of Legislation – John Kennedy, RCRC Legislative Advocate *(10 minutes)*

A. Complete Text of Selected Bills

B. Summary Listing of All Solid Waste Related Bills

VI. Member County Concerns/Comments *(10 minutes)*

VII. Solid Waste/Regulatory Update **Page 27**

Discussion and possible action related to the following:

A. CalRecycle
- SB 1383 Short-Lived Climate Pollutant Regulations– Mary Pitto, RCRC Regulatory Affairs Advocate *(pp 29-58; 20 minutes)*
- AB 901 Recycling and Disposal Reporting Regulations – Larry Sweetser, ESJPA Consultant *(5 minutes)*

B. California Air Resources Board
- Advanced Clean Truck Rule – Staci Heaton *(pp 59-87; 10 minutes)*

C. State Water Resources Control Board
- Landfill PFAS Orders – Larry Sweetser *(5 minutes)*
- Waste discharge fees – Larry Sweetser *(pp 89-90; 5 minutes)*

D. California Department of Food and Agriculture
- Weigh Scale Enforcement *(page 91; 10 minutes)*

E. Department of Toxic Substances Control
- Universal Waste Program – Larry Sweetser *(pp 93-227; 10 minutes)*
- Photovoltaic Modules – Larry Sweetser *(pp; 5 minutes)*

F. Extended Producer Responsibility
- CA Product Stewardship Council Update – Doug Kobold, Executive Director, CPSC *(5 minutes)*
- Mattress Recycling Council Update – Jennifer Duran, Central California Program Coordinator, Mattress Recycling Council *(5 minutes)*

G. Grant Program Update – Larry Sweetser *(5 minutes)*

H. Highlights of November CalRecycle Meetings – Larry Sweetser *(5 minutes)*

I. Other Regulatory Announcements/Issues of Interest
   - Cal EPA CUPA Newsletters *(pp 229-242)*

VIII. Agenda Suggestions, Member County Presentation Volunteer, Workshop Topics for Next ESJPA Board Meeting Scheduled Thursday, June 18, 2020.

IX. Articles of Interest **Page 243**
(pp 245-268)

X. Adjournment

12:00 PM Lunch

1:00 PM

Technical Advisory Group Breakout Session *(Page 269)*

Preparing for SB 1383 Implementation

Agenda Item II

BUSINESS MATTERS

Rural Counties
Environmental Services
Joint Powers Authority
ESJPA

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY
VICE CHAIR – DENISE CARTER, COLUSA COUNTY
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)
TAG CHAIR – JIM MCHARGUE, AMADOR COUNTY
TAG VICE CHAIR – TODD STORTI, BUTTE COUNTY
PROGRAM MANAGER – STACI HEATON

Minutes of the Rural Counties' Environmental Services Joint Powers Authority Board of Directors' Meeting Rural County Representatives of California 1215 K St., 16th Floor Sacramento, CA 95814

Thursday, December 12, 2019

VOTING MEMBERS PRESENT

Denise Carter, Vice Chair	Colusa County
Todd Storti	Butte County
Mike Azevedo	Colusa County
Tedd Ward	Del Norte County
Lori Parlin	El Dorado County
Greg Stanton	El Dorado County
Talia Richardson	Glenn County
Lars Ewing	Lake County
Aaron Albaugh	Lassen County
Ahmad Alkhayyat	Madera County
Jared Carter	Madera County
Sam Cerveny	Mariposa County
Justin Nalder	Mono County
Bob Perrault	Plumas County
Lee Adams	Sierra County
Michael Kobseff	Siskiyou County
Rachel Ross	Tehama County
Diane Rader	Trinity County
Gretchen Olsen	Tuolumne County

STAFF IN ATTENDANCE

Staci Heaton, Program Manager	Rural Counties ESJPA
John Kennedy, Legislative Affairs Advocate	RCRC Government Affairs
Mary Pitto, Regulatory Affairs Advocate	RCRC Government Affairs
Larry Sweetser, ESJPA Consultant	Sweetser and Associates, Inc.
Lisa McCargar, Chief Financial Officer	RCRC
Sanjay Lee, Accountant	RCRC

GUEST SPEAKERS

Brianna St. Pierre, State Water Resources Control Board
Marshalle Graham, CalRecycle
Doug Kobold, CPSC
Liz Wagner, MRC
Jeffrey Warren, El Dorado County

OTHERS IN ATTENDANCE

Eric Miller	Butte County
Kathy Diaz	Calaveras County
Kati Galvani	El Dorado County
Mark Moss	El Dorado County
Chris Hanson	Placer County
Don Renz	Shasta County
Jason Ledbetter	Siskiyou County
Diane Green	Tuolumne County
Nate Birtwhistle	Tuolumne County
Mark Rappaport	City of Folsom
John Pabst	ACES Waste Services, Inc.
Wendell Minshew	SCS Engineers
Deb Phillips	San Joaquin/Greater Valley Conservation Corps

MEMBERS NOT REPRESENTED

Alpine County, Amador County, Calaveras County, Imperial County, Inyo County, Modoc County, and Nevada County.

I. Call to Order, Self-Introductions, and Determination of Quorum

Supervisor Denise Carter, ESJPA Vice Chair, called the meeting to order at 9:03am. A quorum was determined at that time. Self-introductions were made.

II. Public Comment

No public comments were made.

III. Business Matters

A. Approval of minutes.

1. Supervisor Carter called for the approval of the minutes from the October 17, 2019 meeting. The motion to approve the minutes was made by Supervisor Aaron Albaugh, Lassen County and seconded by Supervisor Lee Adams, Sierra County.

2. Supervisor Carter called for the approval of the minutes from the August 14, 2019 meeting. The motion to approve the minutes was made by Tedd Ward from Del Norte County, and seconded by Ahmad Alkhayyat from Madera County.

3. Supervisor Carter called for the approval of the minutes from the June 20, 2019 meeting. The motion to approve the minutes was made by Rachel Ross from Tehama County, and seconded by Supervisor Aaron Albaugh from Lassen County.

B. Approval of 2020 Meeting Schedule—Staci Heaton, ESJPA Program Manager, presented the 2020 ESJPA meeting schedule for approval by the board. The motion to approve was made by Supervisor Lee Adams, Sierra County, and seconded by Todd Storti, Butte County.

C. RCRC Chief Operating Officer Lisa McCargar and Accountant Sanjay Lee gave an overview of the 2020 ESJPA budget as it relates to RCRC, including expected staffing expenditures for advocacy efforts. The motion to approve the 2020 ESJPA budget was made by Tedd Ward of Del Norte County, and seconded by Diane Rader of Trinity County

D. Lisa McCargar and Sanjay Lee presented the 2020 ESJPA Contract Services Agreement to retain the services of ESJPA Contractor Larry Sweetser. The motion to approve the Agreement was made by Tedd Ward of Del Norte County, and seconded by Gretchen Olsen of Tuolumne County.

E. RCRC Solid Waste Policy Principles—Staci Heaton gave an overview of the 2020 RCRC Solid Waste Policy Principles and asked ESJPA members to send their input to ESJPA staff for consideration for inclusion in the final version.

IV. Presentations

A. State Water Board Waste Discharge Orders

Brianna St. Pierre, State Water Resources Control Board, gave a brief overview of the disaster-related wastes Waste Discharge Requirement (WDR) being proposed at the State Water Board. She explained that the WDR is designed to streamline current orders at various regional boards for disasters that cross regions. Staff is currently working on its response to comments and looking at board adoption in February 2020.

Ms. St. Pierre also discussed the statewide composting general order. Wendell Minshew, SCS Engineers, asked if a landfill WDR would cover the same composting operations, and Ms. St. Pierre verified that if the WDR specifically covers the composting operations, the order would not apply. If not, then the landfill would need to get covered under the order or their WDR. Larry Sweetser, ESJPA Consultant, pointed out that manure is something that must be targeted under SB 1383, so it should also be considered under this. Supervisor Carter asked what the minimum facility size that is covered under the order would be, and Ms. St. Pierre verified that it would apply to 25,000 cubic yards and above. If you have more than that on your site at a given time, in process and completed, you would be covered under the order.

B. County Presentation—"Food Recovery in a Regulatory World", Jeffrey Warren, El Dorado County

Jeffrey Warren, Environmental Management Manager, El Dorado County, gave a presentation on how El Dorado County is using Orange County's successful food recovery program, Waste Not Orange County (WNOC), as a model for El Dorado's own model program. Warren described how El Dorado County will be using grant funding from CalRecycle to provide infrastructure improvements to the Food Bank of El Dorado County, as well as establishing a pilot program to educate restaurants and other food providers on how to donate surplus food.

C. Marshalle Graham, CalRecycle Update

Marshalle Graham gave a brief update on relevant activities currently underway at CalRecycle. Included in her update was an emphasis by CalRecycle on progress on mandatory commercial recycling, particularly in areas of 50% noncompliance. CalRecycle staff is discussing how to increase compliance and will be working one on one with facilities and may need to explore exemptions that need to be taken into account. She also informed the group that waste enforcement grant applications are due January 1st, and that local governments are eligible. Tire derived aggregate grants applications are due January 30th, farm and ranch cleanup and abatement program applications due February 6th, beverage and container recycling grants due February 28th. The Greenhouse Gas Reduction Fund loan program is ongoing, with $2 million available.

V. Legislative Update

John Kennedy, Legislative Affairs Advocate for RCRC, provided a legislative update on current legislative activities, and asked for discussion on the questions sent out earlier in the week by Staci Heaton on fees.

- Tedd Ward, Del Norte County—Del Norte County has completely lost its recycling market at the behest of the owner of the collection company. The county is facing total loss of local control ultimately.
- Greg Stanton, El Dorado County—The county has seen a swing over two years from getting $40/ton in revenue to paying $60/ton, and they are predicting another 6-9% hit.
- Justin Nalder, Mono County—Mono is looking to increase tipping and franchise fees to compensate for handling and processing costs. Trying to educate and prep residents for the increase, estimating around $20/ton on the tipping fee side.
- Gretchen Olsen, Tuolumne County—When she worked for the City of Stockton, there was a 32% cost increase in residential and commercial to compensate for recycling and SB 1383. Tuolumne is already looking at a contamination and processing overage request.
- Lars Ewing, Lake County—Lake is looking at what a surcharge would look like.
- Supervisor Adams—Looking at their solid waste fee because the state isn't recognizing the market issue. They're already seeing a public backlash.
- Don Renz, Shasta County—Public still has the view that recycling is a money-making market, which doesn't help anything.
- Supervisor Carter—Local businesses are saying that their local recycler was issuing IOUs for returned cans and bottles.
- Ahmad Alkhayyat, Madera County—He has been asked to look at losses, increasing residential rates for one year, then will reassess in July.
- Tedd Ward—The state should direct CalRecycle staff to look at buyback centers in communities to help with recycling pressures.

VI. Member County Concerns/Comments

- Justin Nalder, Mono County—RDRS, which Larry Sweetser was set to cover later in the meeting.
- Jason Ledbetter, Siskiyou County—E-waste transfer operator is down to $12,000 shipping out of the area. Concerned about getting someone to take microwaves apart to get to the materials that need to come out. Larry Sweetser to discuss offline.
- Justin Nalder—Info on CAM systems for data reporting. Is there any other software that works well for RDRS reporting? Larry Sweetser offered to send out the question to SWANA.

VII. Solid Waste/Regulatory Update

A. CalRecycle

1. SB 1383 Short-Lived Climate Pollutant Regulations

Mary Pitto, RCRC Regulatory Affairs Advocate, gave an update on the status of SB 1383 regulations, including a discussion of the most recent draft of the proposed regulations and RCRC's comment letter. CalRecycle did not lower the elevation for the bear waiver as we requested, and that is just one of many issues still outstanding in the proposal that needs to be addressed. Staff provided both a brief and a more detailed summary of the current version of the regulations in the packet for members. Marshalle Graham, CalRecycle, noted that staff is out visiting local governments and they are willing to assist in any way.

Tedd Ward asked if the regulations require mandatory collection, and both Mary Pitto and Larry Sweetser clarified that while self-haul is still allowed, it's unclear how that fits into the scheme or how it can be monitored. Tedd asked if anything can be done at the legislature, and Staci Heaton said that RCRC is laying groundwork for a potential legislative fix.

2. AB 901 Recycling and Disposal Reporting Regulations – Larry Sweetser, ESJPA Consultant

Larry Sweetser gave an update on the status of the new reporting system. Operators are experiencing a number of issues and said that he is trying to figure out how to get responses to the myriad questions that keep coming up about the proposal. Justin Nalder, Mono County, said he keeps getting an error on in and out programming, and that his quarterly report took five days as opposed to 3-4 hours. Rachel Ross, Tehama County, said that she is not getting responses and it made her report late. She is trying to figure out how to input data on green material for beneficial reuse when she doesn't know how it will be used.

B. State Water Resources Control Board

1. Landfill PFAS Orders – Larry Sweetser

Larry Sweetser asked if anyone had any issues to raise on the data gathering process being done by the Water Board. Don Renz, Shasta County, indicated that testing had been done at three of their sites, with detections at all three.

C. Department of Toxic Substances Control

1. Photovoltaic modules

Larry Sweetser indicated he is waiting on federal EPA for determination authorizing California to designate universal waste. The regulation of photovoltaic modules as universal wastes is expected for springtime. E-waste vendors are willing to take them once they are approved, and while out of state vendors are willing to take them now, he is not sure of their management methods and wouldn't recommend it.

2. Product Toxicity Initiative

Larry Sweetser said DTSC did workshops on PFAS, food packaging and textiles. They are looking at adding these items to the Safe Consumer Products program, and manufacturers will be required to go through a lengthy approval process to approve its use.

D. Extended Producer Responsibility

1. CA Product Stewardship Council Update

Doug Kobold, Executive Director of CPSC, discussed battery disposal requirements, rechargeable vs. non-Lithium ion batteries and fire risk, as well as current legislation. AB 1509--general consumers won't know the difference of which do and don't go into the program. Trying to limit opposition to proposal to get something passed. Rachel Ross, Tehama County, thinks all batteries should go into the program. SB 424—might just be an e-waste bill, although would love to tackle tobacco waste. SB 212-- DHCS take back grant, $3 million to place take back bins statewide. Nine of the bins are in ESJPA counties. Another 11 are approved for placement, could use ESJPA member help. Looking to bring convenience centers back to help recycling back.

2. Mattress Recycling Council Update

Liz Wagner, Special Projects Coordinator, Mattress Recycling Council informed the group that events have slowed down a bit due to weather. MRC has ramped up on looking for underserved areas. AB 187 passed but won't change program implementation. It will go into effect January 1. Memorializing CBT program. Michael and Jennifer will be at the next meeting. Liz will be going on leave for about a year very soon. Larry Sweetser said that with Jim McHargue (Amador County) moving on, there is an opening for a rural county representative on the Mattress Recycling Council. CalRecycle will fill the position but he needs to know if one of our members is interested.

E. Grant Program Update

Larry Sweetser informed the group that the ESJPA was not given the USDA grant, but that individuals could still apply for their own applications through December 31st.

F. Highlights of September/October CalRecycle Meetings

Larry Sweetser discussed the resignation of CalRecycle Director Scott Smithline and potential replacements for the position.

G. Agenda Suggestions, Member County Presentation Volunteer, Workshop Topics for Next ESJPA Board Meeting Scheduled Thursday, March 12, 2020.

Frank Severson, CalRecycle, RMDZ +Loan program changes was a suggested presentation.

VIII. Articles of Interest

No articles were referenced.

IX. Adjournment – was called at 12:10 pm

Rural Counties
Environmental Services
Joint Powers Authority

ESJPA

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY
VICE CHAIR – DENISE CARTER, COLUSA COUNTY
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)
TAG CHAIR – JIM MCHARGUE, AMADOR COUNTY
TAG VICE CHAIR – TODD STORTI, BUTTE COUNTY
PROGRAM MANAGER – STACI HEATON

MEMORANDUM

To: **ESJPA Board of Directors**

From: **Staci Heaton, ESJPA Program Manager**

Date: **March 2, 2020**

RE: **Election of ESJPA and TAG Chair and Vice Chair**

The ESJPA Joint Exercise of Powers Agreement specifies that the Board shall elect its Chair and Vice Chair "from among its properly designate Delegates...who shall serve a term of one year or until their respective successor is elected." Our current Chair is Michael Kobseff, Siskiyou County, and the Vice Chair is Denise Carter, Colusa County.

In December of each year, the RCRC Board elects its Officers and makes a recommendation for the Chair and Vice Chair to the ESJPA for consideration. This year's election occurred at their March Board meeting, where the RCRC Board made a recommendation of Supervisor Michael Kobseff, Siskiyou County for Chair of the ESJPA and Supervisor Denise Carter, Colusa County for Vice Chair of the ESJPA.

In addition, each year the ESJPA Board elects a Technical Advisory Group (TAG) Chair and Vice Chair. The TAG is comprised of the Delegate's staff Alternates that may act on behalf of the Delegates in their absence. Our current Chair and Vice Chair positions are vacant.

Staff Recommendations:
Staff recommends the Board of Directors take action to:

1. Elect the 2020 ESJPA Chair/Vice Chair.
2. Appoint the 2020 TAG Chair/Vice Chair.

ESJPA
2020 Delegate and Alternate Roster

County	Delegate	Alternate	2nd Alternate
Alpine	David Griffith	Terry Woodrow	
Amador	Brian Oneto	Jeff Gardner	
Butte	Doug Teeter	Eric Miller	
Calaveras	Jack Garamendi	Benjamin Stopper	
Colusa	Denise Carter	Michael Azevedo	
Del Norte	Gerry Hemmingsen	Tedd Ward	
El Dorado	Lori Parlin	Greg Stanton	Mark Moss
Glenn	John Viegas	Cole Grube	Talia Richardson
Imperial			
Inyo	Matt Kingsley	Fred Aubrey	
Lake	Moke Simon	Lars Ewing	
Lassen	Aaron Albaugh		
Madera	David Rogers	Ahmad Alkhayyat	Jared Carter
Mariposa	Kevin Cann	Mike Healy	Sam Cerveny
Modoc	Geri Byrne	Ned Coe	
Mono	Stacy Corless	John Peters	Justin Nalder
Nevada	Dan Miller	Susan Hoek	
Plumas	Kevin Goss	Sharon Thrall	Robert Perreault
Shasta	Les Baugh	Don Renz	Pat Minturn
Sierra	Lee Adams	Peter Huebner	Tim Beals
Siskiyou	Michael Kobseff	Jason Ledbetter	
Tehama	Bob Williams	Rachel Ross	
Trinity	Jeremy Brown	Diane Rader	
Tuolumne	Sherri Brennan	Karl Rodefer	Gretchen Olsen

Agenda Item IV

PRESENTATIONS

REQUEST FOR APPROVAL

To:	Cara Morgan, Branch Chief Local Assistance and Market Development
From:	Frank Severson, Environmental Scientist Local Assistance and Market Development
Request Date:	January 16, 2020
Decision Subject:	Approval to Initiate A Recycling Market Development Zone Designation Cycle For 2020
Action By:	February 18, 2020

Summary of Request:
This Request for Approval is to initiate a Recycling Market Development Zone (RMDZ) Designation Cycle for 2020. Pursuant to regulations (14 California Code of Regulations (CCR) section 17902 (a)), CalRecycle is initiating a cycle to add a maximum of five new RMDZs to the Program. Furthermore, the regulations require that CalRecycle identify statewide objectives to consider before selecting new RMDZs. In addition to the statewide objectives identified in the regulations, CalRecycle is initiating a new designation cycle to help increase recycling manufacturing infrastructure in California, which will support the State's 75% initiative and SB 1383's goals to reduce emissions of Short-Lived Climate Pollutants. Expanding the number of RMDZs will also fill any regional or statewide gaps in areas covered by an RMDZ, reduce greenhouse gas emissions, create jobs, increase the use of locally collected recyclables, and divert waste from landfills.

Recommendation:
Staff recommends approval of the initiation of an RMDZ Designation Cycle in 2020 and approval of the objectives and scoring criteria (see attachment 1).

Branch Chief Action:
On the basis of the information and analysis in this Request for Action and the findings set out above, I hereby approve initiating a RMDZ Designation Cycle for 2020; the statewide objectives and scoring criteria for this RMDZ Designation Cycle; and allowing up to the five highest scoring applicants receiving a passing score of 70 or above be

allowed to become a RMDZ.

Dated: _____

_____
Cara Morgan, Branch Chief
Local Assistance and Market Development

Attachment 1: Scoring Criteria, Recycling Market Development Zone Designation Cycle For 2020

Background Information, Analysis, and Findings:

In the early 1990s, the former California Integrated Waste Management Board (now CalRecycle) established an RMDZ Program based on the very similar California Enterprise Zone Program. The RMDZ Program was designed to bring new green businesses into a community and to help existing green businesses flourish. Currently, there are 40 RMDZs.

The RMDZ Program combines recycling with economic development to fuel new businesses and expand existing ones that are located in a CalRecycle-designated RMDZ. Recycling manufacturers located in California create jobs, increase the use of locally collected recyclables instead of relying upon export markets, reduce greenhouse gas emissions, and divert waste from landfills. The Program provides attractive loans, technical assistance, and free product marketing through CalRecycle's RecycleStore. The RecycleStore advertises businesses that use material from the waste stream to manufacture their products. Business assistance is provided through a partnership between local Zone Administrators and CalRecycle. Local government incentives may include special variances in building codes and zoning laws; streamlined local permit processes; reduced taxes and licensing fees; and help to find consistent secondary material feedstock supply.

To become an RMDZ, local jurisdictions must commit to providing resources and business incentives to complement those offered by CalRecycle. Local RMDZ programs are implemented by Zone Administrators who typically come from local public works or environmental departments or economic development offices. The Zone Administrator's primary functions are to promote the RMDZ program to existing recycling-based manufacturers within the RMDZ and to entice viable new businesses into their RMDZs to increase the use of recyclable waste stream materials generated in the region.

Staff proposes that CalRecycle conduct an RMDZ Designation Cycle in 2020 and that it be a competitive process that maintains the same basic standards as in previous designation cycles. Staff proposes that scoring be based on a combination of overall statewide objectives contained in pertinent statute and regulations, additional more focused objectives, and several measures regarding plan and resource adequacy (see Attachment 1).

CalRecycle must use specific statewide market development objectives for the cycle as defined in 14 CCR Section 17909. This regulation establishes the following statewide objectives for each designation cycle:

1. Extend landfill capacity in the applicant's jurisdiction and region through decreased disposal;
2. Encourage the use of emerging technologies to address priority waste stream materials;
3. Distribute RMDZs throughout the State to encourage regional recycling; and,
4. Stimulate new regional markets.

CalRecycle also has the discretion to develop additional objectives and scoring criteria based on existing CalRecycle priorities and anticipated future trends in certain material markets. Staff proposes the targeted scoring criteria listed below, which will ensure selected applicants represent regions with a high potential to either be used by existing manufacturing businesses to include more recovered materials or where new businesses can be quickly established to use regionally available commodities and that they have the capability to function as an RMDZ.

- Applicant determines that there is a large number of priority materials that are being disposed of in the region, e.g., construction and demolition (C&D) materials, organics, fiber, and plastics. The application will state the types and quantities of materials that could be available to recycling manufacturers.
- Applicant demonstrates that there are existing collection and processing infrastructure to create a significant continuous stream of recoverable materials, which will ensure a consistent feedstock.
- Applicant demonstrates that it already has been working with local businesses to build a strong recycling infrastructure. This will ensure that any RMDZ assistance provided by CalRecycle will have a more immediate impact on the local infrastructure and economy.
- Applicant is committed to offering RMDZ businesses a range of resources including technical assistance, marketing, permit, and siting assistance, reduced fees, or other economic incentives.
- Applicant is committed to dedicating local jurisdictional staff resources to manage the RMDZ.

- Applicant submits an RMDZ marketing plan that demonstrates how planned activities and tasks will attract, expand, and retain existing recycling manufacturing businesses. The marketing plan will define goals, objectives and metrics for measuring the impact of the RMDZ program, as well as provide detailed plans for assisting businesses, attracting businesses, and evaluating feedstock availability.
- The proposed RMDZ encompasses an entire city or county or multiple jurisdictions, as opposed to specific parcels of property. However, to demonstrate the viability of the proposed RMDZ, the applicant addresses the availability of industrially zoned commercial real estate for new and expanding recycling manufacturers, including land and/or buildings.
- Applicant identifies the availability of industrially zoned commercial real estate properties and buildings available within the proposed RMDZ that will meet the needs of new and expanding recycling manufacturers that will use the targeted materials.

CalRecycle staff believes that these objectives and criteria will result in new partnerships with local and regional governments that have the best potential to achieve CalRecycle's goals of reducing the State's overall disposal rate and developing additional markets for recyclable materials generated in California.

Number of Zones to Be Added

Staff proposes that up to the five highest-scoring applicants receiving a passing score of 70 points be allowed to become new RMDZs. The staff has reviewed available resources (funding, loan monies, and staff), as well as RMDZ program needs to determine the number of Zones to seek for designation. Additionally, staff considered the distribution of Zones throughout the State along with regional needs, infrastructures, secondary material flows, and local synergies. Finally, the staff has been contacted by two counties that have expressed interest in joining the RMDZ program. Based on its analysis and the interest expressed, staff recommends that up to five new Zones be targeted for designation in the 2020 cycle. This will help to fill any regional or statewide gaps and further support the State's 75% Initiative to expand recycling manufacturing infrastructure, promote the use and procurement of recycled products and materials, and, thereby increase diversion of recyclables, reduce disposal, add local jobs, and reduce environmental impacts of manufacturing by using secondary materials. This also has the potential to reduce greenhouse gas emissions, increase energy savings, and reduce air and water pollution.

Proposed TimeLine for 2020 RMDZ Designation Cycle

Due to the requirement of 14 CCR Section 17902 that applications must be submitted no later than 120 days after the beginning of the designation cycle, staff proposes that the cycle begins on February 18, 2020. A statement describing how either an applicant intends to comply, or has complied with CEQA, or has been determined to be exempt from CEQA, is a requirement of the application process. This date will accommodate the need for applicants to either complete the necessary environmental review and approval under CEQA or determine that they are exempt from CEQA requirements. This will provide ample time so that a jurisdiction can complete the CEQA requirements. To promote the 2020 RMDZ Designation cycle, staff will notify jurisdictions statewide starting in early February.

ACTIVITY	TIMEFRAME
Notice of RMDZ Designation Cycle to all Jurisdictions	February 2020
Designation Cycle begins	February 18, 2020
Applications due to CalRecycle	June 16, 2020
Application review period	June-July 2020 or sooner depending on number of applications
CalRecycle considers designation requests	July 2020 or sooner depending on number of applications

SCORING CRITERIA:
Recycling Market Development Zone Designation Cycle
For 2020

Applicants must score at least 70 points of the total possible 100 points to be considered for designation.	
GENERAL REVIEW CRITERIA	
Points	**Description** – Points per bulleted item are in parentheses
20	1. **STATEWIDE OBJECTIVES:** Applicant demonstrates that it will contribute to the statewide objectives if they are designated as a Recycling Market Development Zone (RMDZ). • (5) Extending landfill capacity. • (5) Encouraging the use of emerging technologies to address priority materials. • (5) Distributing RMDZs throughout the state. • (5) Stimulating new regional markets and recycling manufacturing infrastructure.
20	2. **TARGETED/REGIONAL CRITERIA:** Applicant clearly describes whether and how the proposed RMDZ reflects the following characteristics to ensure regions are represented that: have high potential to target existing manufacturing businesses to include more recovered materials and/or to assist them in staying viable; have high potential to target new businesses that can be quickly established to use regionally available commodities; and have the capability to function as a RMDZ. • (5) Applicant demonstrates a relatively large amount of priority materials are being disposed of in the region, e.g., construction and demolition (C&D) materials, organics, fiber, and plastics, etc.. • (5) Applicant demonstrates that there is an existing collection and processing infrastructure in the proposed zone and/or nearby region to create a significant continuous stream of recoverable materials, which will assure a consistent feedstock. • (5) Applicant demonstrates it already has been working with local businesses to build a strong recycling infrastructure. This will ensure that any technical assistance and loan funds provided by CalRecycle will have a more immediate impact on the local infrastructure and economy. • (5) Proposed RMDZ should encompass an entire city or county or multiple jurisdictions, as opposed to specific parcels of property.
30	3. **MARKET DEVELOPMENT PLAN:** Applicant includes a detailed Recycling Market Development Zone Action Plan that shows how planned activities and tasks will promote manufacturing using recycled feedstock to attract manufacturing businesses and retain existing manufacturing businesses. Applicant delineates activities and tasks and demonstrates that they are well thought through and are achievable with available resources. • (5) Applicant defines reasonable goals and objectives, which address metrics such as how many businesses will be contacted, how much disposal will be reduced, how much GHGs will be reduced, how many jobs will be created, etc. Goals are achievable in comparison to baseline data. • (5) Applicant demonstrates a plan to assess local business circumstances and how local manufacturers and new businesses can become part of the recycling

	• (5) Applicant demonstrates a plan to involve other business-focused organizations (i.e. Chambers of Commerce and Economic Development entities). • (5) Applicant discusses feedstock availability and reliability and what tools and approaches it will use to expand feedstock supplies if future demand increases. • (5) Applicant shows commitment to offering RMDZ businesses resources including activities such as technical assistance, marketing, permit and siting assistance, reduced fees or other economic incentives. • (5) Applicant identifies availability of industrially zoned commercial real estate properties and buildings within the proposed RMDZ that will meet the needs of new and expanding recycling manufacturers that will use the targeted materials.
10	**4. BUDGET AND RESOURCES:** Applicant demonstrates substantive commitment to provide funding and staffing for the program. • (3) Applicant describes the overall RMDZ administration, including personnel resources and responsibilities. Applicant demonstrates that the proposed staffing has experience in solid waste management and/or economic development. • (3) Applicant provides a line item budget for the proposed RMDZ showing sources of funds to support the proposed RMDZ. Show how the budget ties to implementing RMDZ program activities such as marketing and publicity, technical assistance, etc. • (2) Applicant provides a detailed organization chart for the proposed RMDZ's administration. • (1) Applicant shows additional support from local governmental entities that might not be directly involved, such as information offices, technology support units, economic development departments, etc. Support could include staffing, funding, advertising, technical assistance, etc.
10	**5. EVALUATION:** Applicant includes metrics for activities (output) and evaluation (outcome). • (4) Applicant clearly describes baseline data such that program success can be measured. • (4) Applicant clearly defines metrics to track both activities to be performed and measurable outcomes resulting from those activities. • (2) Applicant sets activity metrics and evaluation metrics for planned Zone Incentive Fund Activities.
10	**6. APPLICATION COMPLETENESS, LETTERS OF SUPPORT, EXPERIENCE, ETC.** • (4) Applicant provides all necessary documentation. • (2) Application is free of significant errors and omissions. • (2) Applicant includes letters of support and resumes. • (2) Applicant demonstrates its involvement with other RMDZs, cooperating and participating governmental agencies, businesses, and organizations needed to be a successful RMDZ.
100	**TOTAL POSSIBLE GENERAL REVIEW CRITERIA POINTS**

Agenda Item VII

SOLID WASTE REGULATORY UPDATES

Rural Counties
Environmental Services
Joint Powers Authority
ESJPA

Planning for Implementation of SB 1383
February 27, 2020

➢ Determine the Scope of SB 1383 requirements for your jurisdiction.

- Determine and map applicable organic collection waivers/exemptions from CalRecycle that may apply to the jurisdiction:
  - Counties with a population of less than 70,000 may apply for a rural exemption from complying from the organic waste collection requirements of Article 3 through December 31, 2026.
    - The Board of Supervisors must adopt a resolution that includes a finding as to the purpose of and need for the exemption prior to January 1, 2022.
    - Procurement requirements are delayed until January 1, 2027.
    - The first capacity planning report for infrastructure is delayed two years, until August 1, 2024.
  - Counties with a population of 70,000 or more may apply for low population waivers for up to five years for some or all its generators from some or all of the organic waste collection requirements of Article 3.
    - Low populations are census tracts with less than 75 persons per square mile or cities with less than 7,500 persons that had less than 5,000 tons of waste in 2014.
    - A jurisdiction may apply to renew this waiver at anytime up to 180 days prior to the expiration of the existing waiver.
  - Determine areas within the County that are at or above the 4,500-foot elevation for *food waste* collection waivers.
  - Determine the remaining population subject to organic waste collection requirements.
  - Apply for the waivers/exemptions right away, as it will impact the extent of your requirements.
- Determine the number of Tier 1 and Tier 2 businesses subject to the edible food recovery requirements.
  - Tier 1 – Supermarket (gross annual sales of at least $2 million), grocery store (facility size 10,000 square feet), food service provider, food distributor, and wholesale food vendor.
  - Tier 2 – Restaurant with 250 or more seats, or a total facility size of 5,000 square feet, hotel with an on-site food facility and 200 or more rooms, health facility with an on-site food facility and 100 or more beds, large venues (e.g. county fair with more than 2,000 individuals per day), large events (e.g. sporting events or flea market with more than 2,000 individuals per day) , a state agency with a cafeteria with 250 or more seats or a total cafeteria facility size at least 5,000 square feet, a local education agency with an on-site food facility.
  - The number of qualifying businesses may impact how you would like to proceed with your program.
- SB 1383 extends beyond the Solid Waste Management Department and Programs. Boards of Supervisors will need to determine what Department will take responsibility to implement the various requirements contained in these regulations.
  - The CalGreen Construction and Demolition Debris and Model Water Efficient Landscape Ordinance is generally administered by the Building Department. Should the Building Official

be directly responsible to meet the requirements of Article 8 of this Chapter implementing the CALGreen Building Standards and the Model Water Efficient Landscape Ordinance (MWELO), including the reporting requirements?
    - SB 1383 requires jurisdictions annually procure a quantity of recovered organic waste products that meets or exceeds its annual procurement target determined by CalRecycle. Qualified products include compost, renewable gas used for fuel for transportation, electricity, heating application, electricity from biomass conversion, and mulch. The procurement requirements impact various departments. Should the procurement requirements including retaining documentation be administered through the County Administrative Office, Purchasing, or individual departments (which can be electronic)?
    - SB 1383 includes an edible food recovery program. Should this program be administered through Social Services, Environmental Health, an Edible Food Recovery Task Force/working group that could include representatives from the Social Services Department, Environmental Health Department, Food Banks, Tier 1 and Tier 2 businesses, non-governmental organizations, churches, and other organizations to meet the requirements of Article 10 of this Chapter, including the reporting requirements.
    - SB 1383 requires new responsibilities on LEAs.
    - Who will be responsible for enforcement for each of the programs?
    - Who will be responsible for the Implementation Record that is to gather all reporting requirements and kept in one central location?
- Determine if the Performance-Based Source Separated Organic Waste Collection Service is applicable to your jurisdiction.

➢ Adopt ordinances or enforceable mechanisms for implementation of SB 1383 by January 1, 2022.

- Determine cost and timeline associated with adopting enforceable mechanisms for SB 1383 implementation.
- Determine how to provide the required services and negotiate any necessary changes too existing collection contracts or franchise agreements.
- Components to be addressed are:
    - Organic waste collection service, including self-haul compliance.
    - Education and outreach, monitoring and inspections, enforcement, recordkeeping and reporting.
    - Edible food recovery.
    - Organic waste capacity planning.
    - Procurement.
    - CalGreen Building standards for recycling containers in new commercial and multi-family construction and construction and demolition recycling of residential and non-residential construction debris.
    - Model Water Efficient Landscape Ordinance for new construction to meet Water Efficient Landscape requirement for compost and mulch application.

➢ Provide organic waste collection to residents and remaining small businesses by January 1, 2022 (January 1, 2027, for an approved rural exemption).

- Determine amount of additional organic waste to be collected.
    - Identify the amount of waste disposed in your jurisdiction in 2014 and calculate the amount of organic waste in the waste stream (baseline).
    - Calculate the 50% diversion target for 2020.
    - Calculate the 75% diversion target for 2025.
- Determine types and amounts of organic waste being discarded either through waste composition studies or using CalRecycle's Waste Characterization Estimates tool.

- Food waste
- Leaves and grass
- Pruning and trimmings
- Branches and stumps
- Lumber
- Agricultural green waste
- Organic textiles
- Organic carpets
- Paper products
- Printing and writing paper
- Manure
- Biosolids
- Digestate
- Sludges

- Determine potential programs for organic diversion.
  - Reducing food waste
  - Backyard composting
  - Community composting/gardening
  - Animal feed opportunities
  - Land application opportunities
  - Compost operations
  - Anaerobic digestion facilities
- Identify existing organic processing facilities locations and available organic processing facility capacities.
  - Determine diversion rates for compliance with "high diversion organic waste processing facility" requirements.
  - What types of organics will be accepted?
  - Determine transportation costs and costs associated with the facilities.
  - Determine needed facility capacities and costs associated with new or expanded facilities.
- Identify existing collection haulers and collection systems.
- Working with the haulers, determine changes required and the associated cost to the collection system.
  - Route/collection system changes
  - Cart color changes
  - Labeling
  - For 2 or 3 container service, monitoring for container contamination
    - Annual random route reviews, or
    - Waste composition studies two times per year
- Determine compliance mechanisms and costs for self-haulers.

➢ Establish an edible food recovery program by January 1, 2022 that recovers 20% edible food from the waste stream by 2025.

- Determine scope of the program
  - Determine which Department is responsible to implement edible food recovery program.
    - Staffing
    - Recordkeeping
    - Enforcement
    - Reporting
  - Decide if the jurisdiction will include a task force/working groups made up of interested parties for edible food recovery for people and edible food recovery for animals
    - Responsibilities and expectations of the body
    - Number and composition of members
    - Number of meetings

- Determine Tier 1 and Tier 2 commercial generators edible waste.
  - Determine amount of food currently donated and to whom.
  - Determine amount of food currently discarded.
- Identify existing food recovery organization and services.
  - Develop and annually maintain list of food recovery organizations within the jurisdiction on the website.
  - Identify existing partnerships.
  - Determine their existing capacity and needs to expand capacity.

- Determine costs associated with program implementation.
  - Provide education and outreach to commercial edible food generators regarding edible food donation requirement, and available edible food recovery organizations.
  - Identify ways to increase donations.
  - Identify ways to increase potentially new partnerships.
  - Monitor commercial food generators compliance.
  - Conduct appropriate enforcement.
  - Explore funding mechanisms to increase food recovery.

➢ Conduct outreach and education to all affected parties, including generators, haulers, facilities, edible food recovery organizations, and city/county departments prior to February 1, 2022.

- Determine how and the cost to provide education and outreach.
- Annually provide information to organic waste generators on the proper segregation for the type of collection service provided, methods for prevention and recycling, methane reduction benefits, public health, safety and environmental impacts, through print or electronic media or direct contact through workshops, meetings, or on-site visits.
- Develop and maintain a list of food recovery organizations and services operating within the jurisdiction and maintain the list on the jurisdiction's website, updated annually.
- Annually provide commercial businesses that generate edible food with information about the jurisdiction's edible food recovery collection program, about commercial edible food generators requirements, about food recovery organization and services operating within the jurisdiction, and information about actions that commercial edible food generators can take to prevent the creation of food waste.
- Translation of education materials into any non-English language spoken by a substantial number of the public provided organic waste collection services is left to the discretion of the local agency.

➢ Capacity Planning: Evaluating and planning for your jurisdiction's implementation of SB 1383 beginning August 1, 2022 (August 1, 2024, for counties with an approved rural exemption).

- Determine costs associated with capacity planning requirements.
- Counties shall report the capacity planning for organic waste processing facilities and edible food recovery capacity to CalRecycle by August 1, 2022, for the period covering January 1, 2024, through December 31, 2024 (except for those counties with a rural exemption).
- Beginning August 1, 2024 and every five years thereafter all counties shall report to CalRecycle the capacity planning for ten-year periods beginning the following January 1.
- Counties are responsible to coordinate with the cities to estimate existing, new and/or expanded capacity.
- Counties and cities must demonstrate that they have access to recycling capacity through existing written documented arrangements.
- If capacity is insufficient, then each jurisdiction that lacks capacity must submit an implementation schedule to CalRecycle that includes specified timelines and milestones, including necessary funding.

- Procure recycled organic waste products like compost, mulch, and renewable natural gas (RNG) beginning by January 1, 2022 (January 1, 2027 for counties with an approved rural exemption).

  - Identify potential costs associated with procurement requirements to the various departments.
    - CalRecycle will provide a minimum procurement target that is linked to the jurisdiction's population.
    - CalRecycle will provide a calculator with the conversion factors for the various products procured.
  - The jurisdiction can decide what mix of products it will purchase or use.
  - A jurisdiction may count procurement from direct service providers (for example, its haulers).

- Monitor and inspect for compliance with SB 1383 beginning January 1, 2022, with enforcement beginning January 1, 2024.

  - Identify staff to conduct monitoring and inspections for various aspects of compliance.
    - Collection service
    - Edible food recovery program
  - Identify costs associated with enforcement against organic waste generators that are not in compliance.

- Maintain accurate and timely records of SB 1383 compliance.

  - Consider purchase of software program.
  - Determine cost to maintain records of all relevant documents supporting compliance with each requirement.
    - Copies of ordinances, contracts, agreements, policies, procedures, and programs.
    - Documentation and correspondence for
      - Organics collection
      - Container contamination minimization
      - Waivers and exemptions
      - Education and outreach
      - Hauler program
      - Edible food recovery program
      - Procurement
      - Enforcement
    - Documentation of which collection method(s) will be used and the geographical area for each collection method; if applicable, a list of all the high diversion organic waste processing facilities used and their quarterly and annual average mixed waste organic content recovery rates; a list of all approved haulers, and the geographical areas the hauler(s) serve; and if applicable, written notification from each facility that can recover compostable plastics to be placed in the green container or organic waste to be collected in plastic bags.
    - Process for determining the level of container contamination and documentation of the route reviews conducted; if applicable documentation of waste composition studies, including information on targeted route reviews conducted as a result of the studies, the dates of the studies, the location of the solid waste facility where the study was performed, routes, source sector, number of samples, weights and ratio of prohibited container contaminants and total sample size; copies of all written notices, violations, education and enforcement orders issued to generators; and documentation of the number of containers disposed of due to observation of prohibited container contaminants.
    - Description of the hauler program including type of hauler systems used, type and conditions of approvals per type of hauler, and criteria for approvals, denials, and revocations; the

jurisdictions process for issuing, revoking, and denying self-hauling and back-hauling; and records of hauler compliance including copies of reports required by haulers, and copies of all written approvals, denials, and revocations.

- Reporting requirements commencing 2022, and annually thereafter to the Department.

  - Determine costs associated with reporting requirements.
    - Beginning April 1, 2022, report on implementation and compliance with the requirements of this chapter including a copy of enforceable mechanisms adopted to implement the requirements, all reporting items listed in a jurisdiction's annual report, and contact information for the compliance-related responsible person.
    - Commencing August 1, 2022 and annually thereafter submit an annual report. The first report shall cover the period of January 1, 2022 – June 30, 2022 and is due October 1, 2022. Each subsequent report shall cover the entire previous year.

  - Each jurisdiction shall report the following:
    - Relative to the collection service: the type of organic waste collection services provided to its generators, the total number of generators receiving each type of organic waste collection service, and the RDRS Number of any high diversion organic waste processing facility it uses. If the jurisdiction allows placement of compostable plastic in green containers or organic waste to be collected in plastic bags, notices from each facility that accepts and recovers that material.
    - Relative to contamination monitoring: the number of route reviews conducted for container contaminants; the number of times notices, violations, or targeted education material were issued; the number of notifications received from a solid waste facility operator regarding container contaminants received at the facility, and the results of waste composition studies performed to meet the container contamination minimization requirement and resulting targeted route reviews.
    - Relative to waivers: the number of days an emergency circumstances waiver in effect ant the type of waiver issued, the tons of organic waste that were disposed as a result of waivers, the number of generators issued a physical space waiver, the number of generators waived by the department from the requirements of organic waste collection service.
    - Regarding education and outreach: the number of organic waste generators and edible food generators that received information and the type of education and outreach use and the number of limited English speaking and linguistically isolated households that received information.
    - Regarding the hauler oversight requirements: the number of haulers approved to collect organic waste, the RDRS number of each facility that is receiving organic waste from haulers, and the number of haulers that have had their approval revoked or denied, and the number of self-haulers approved to operate within the jurisdiction.
    - Regarding the CALGreen Building Standards: the number of Construction and Demolition removal activities conducted; and the Model Water Efficient Landscape Ordinance: the number of projects subject to the ordinance.
    - Regarding the edible food recovery: the number of commercial edible food generators, the number of food recovery services and organizations that contract with or have written agreements with commercial edible food generators, and the total amount of edible food recovered by edible food recovery organizations and services.
    - Regarding the organic waste recycling capacity planning and edible food recovery capacity planning: the tons estimated to be generated for disposal, the amount of capacity verifiably available to the county and jurisdictions within the county, the amount of new capacity needed, the location identified for new or expanded facilities, the jurisdictions that are required to submit implementation schedules, and the jurisdictions that did not provide information required to the county within 120 days.

- Regarding the procurement requirements: the amount of each recovered organic waste product procured directly or through direct service providers by the county or cities during the prior calendar year, the total dollar amount spent on all paper purchases, the total dollar amount spend on all recycled content paper purchases, the total amount of transportation fuel, electricity, and gas for heating applications and pipeline injection procured from the previous year if the jurisdiction procures a reduced amount pursuant to section 18993.1. (j), and additional procurement opportunities identified within the jurisdiction's departments.
- Regarding compliance, monitoring, and enforcement: the number of commercial businesses subject to compliance reviews and the number of violations found and corrected; the number or route reviews conducted; the number of inspections conducted by type for commercial edible food generators, food recovery organizations, and commercial businesses; the number of complaints received, investigated, and violations found; and the number of NoVs and penalties issued by type of entity, and the number of enforcement actions that were resolved categorized by type of regulated entity.

➢ Facility monitoring requirements.

- Transfer stations/processing operations or facilities - grey container collection stream waste evaluations
  - Identify manned transfer stations or processing facilities and determine the annual volume going to landfill.
  - Determine the cost of quarterly grey container collection stream waste evaluations for those transfer stations or facilities that receive more than 500 tons of solid waste from at least one jurisdiction annually. (CalRecycle estimated that each sample would require an additional four hours of staff time.)
    - Beginning July 1, 2022, take one random, composite sample taken from various times during the operating day, representative of an operating day, of at least 200 pounds from the incoming gray container collection stream received by the facility.
    - Record the weight of the sample.
    - Remove any remnant organic material and determine the weight of that remnant organic material.
    - Determine the ratio of remnant organic material in the sample.
  - With written notification to the LEA, the gray container waste evaluations may be conducted offsite at an alternative, permitted or authorized solid waste facility or operation provided that the material is not processed prior to its transfer offsite for the waste evaluation.
  - Records of the waste evaluations and training of personnel in evaluating the amount of remnant organic material shall be maintained for 5 years and be available for review.

- Transfer stations/processing facilities
  - Identify organic waste processing facilities (MRFs, compost facilities, AD facilities)
  - Determine the cost of the monitoring requirements of organic waste recovered from mixed waste organic waste collection streams and source separated organic waste collections streams. (CalRecycle based its estimate on sampling 40 days per year and estimated that each sampling event would require two hours of employee time for a total of 80 hours per facility and a facility cost of $4,560/year.)
    - Quarterly, measurements shall be performed over 10 consecutive operating days.
    - On each sampling day, take one sample of at least 200 pounds from each organic waste type separated after processing, representative of a typical operating day and taken either from various times of the day or from various locations within each pile of each of the organic waste types prior to sending to its destination.
    - Record the weight of each sample from each organic waste type.
    - Remove any incompatible material and determine the remaining weight of organic waste for each sample.
    - Determine the ratio of the remaining weight of organic waste to the total sample for each type of organic waste.

        - Multiply the ratio for each type of organic waste by the total weight of all of the same type of organic waste separated after processing for its destination.
        - Determine the total weight of organic waste separated from the collection stream by adding the sum of all the weights calculated above.
    - Determine the cost of the monitoring requirements of organic waste removed from mixed waste organic waste collection streams and source separated organic waste collections streams for disposal. (CalRecycle based its estimate on sampling 40 days per year and estimated that each sampling event would require two hours of employee time for a total of 80 hours per facility and a facility cost of $4,560/year.)
        - Quarterly, measurements shall be performed over 10 consecutive operating days.
        - On each sampling day, take one sample of at least 200 pounds representative of a typical operating day and taken either from various times of the day or from various locations within each pile of each of the organic waste types prior to sending to its destination.
        - Record the total weight of the sample.
        - Remove any incompatible material and determine the remaining weight of organic waste in the sample.
        - Determine the ratio of the organic waste present in the materials removed for disposal to the total sample.
        - Determine the total weight of organic waste removed from the collection stream that is sent to disposal by multiplying the ratio determined above by the total weight of the materials removed from the collection stream for disposal.
    - The measurements shall be conducted in the presence of the EA when requested and the EA may require the operator to increase the frequency of measurements and/or revise the protocol to improve accuracy. An alternative measurement protocol may be approved by the EA with concurrence by the Department.
- Compost facilities
    - Determine the quarterly percentage of organic waste contained in materials sent to landfill disposal.
    - The sampling protocol shall be conducted over 10 consecutive operating days.
    - Each operating day, the sampling protocol is:
        - Take one random, representative sample of at least 200 pounds of materials that is sent to disposal on that operating day, taken either from various times of the day or from various locations.
        - Record the total weight of the sample.
        - Remove any material that is not organic waste and determine the remaining weight of organic waste in the sample.
        - Determine the ratio of the organic waste in the materials by dividing the total from the remaining weight of organic waste by the total weight of the sample.
        - Determine the total weight of organic waste that is sent to disposal by multiplying the ratio determined above by the total weight of the materials sent to landfill disposal.
        - Record the sum of outgoing weights of organic waste present in the material from the 10 sampling days that is sent to landfill disposal each day.
        - Determine the ratio of organic waste sent to disposal by dividing the total from above by the total outgoing weights of material that is sent to disposal each sampling day.
        - Determine the percentage of organic waste present in the material sent to disposal.
    - The measurement shall be conducted in the presence of the EA when requested and the EA may require the operator to increase the frequency of measurements and/or revise the protocol to improve accuracy. An alternative measurement protocol may be approved by the EA with concurrence by the Department.
- In-vessel digestion facilities
    - Determine the quarterly percentage of organic waste contained in materials sent to landfill disposal.
    - The sampling protocol shall be conducted over 10 consecutive operating days.

- Each operating day, the sampling protocol is:
  - Take one random, representative sample of at least 200 pounds of materials that is sent to disposal on that operating day, taken either from various times of the day or from various locations.
  - Record the total weight of the sample.
  - Remove any material that is not organic waste and determine the remaining weight of organic waste in the sample.
  - Determine the ratio of the organic waste in the materials by dividing the total from the remaining weight of organic waste by the total weight of the sample.
  - Determine the total weight of organic waste that is sent to disposal by multiplying the ratio determined above by the total weight of the materials sent to landfill disposal.
  - Record the sum of outgoing weights of organic waste present in the material from the 10 sampling days that is sent to landfill disposal each day.
  - Determine the ratio of organic waste sent to disposal by dividing the total from above by the total outgoing weights of material that is sent to disposal each sampling day.
  - Determine the percentage of organic waste present in the material sent to disposal.
- The measurement shall be conducted in the presence of the EA when requested and the EA may require the operator to increase the frequency of measurements and/or revise the protocol to improve accuracy. An alternative measurement protocol may be approved by the EA with concurrence by the Department.

- Landfills
  - Determine the cost to prepare a Status Impact Report (SIR) that provides an analysis of the potential impact to the landfill resulting from the implementation of the organic disposal reduction requirements.
  - The SIR shall be submitted to CalRecycle within a year of the effective date of this regulation.
  - The SIR shall be prepared by a CA registered civil engineer or certified engineering geologist; and contain specific and detailed information:
    - Site development
    - Waste types/volumes
    - Daily and intermediate cover and beneficial use
    - Volumetric capacity based on reduction requirements
    - Waste handling methods
    - Gas control and monitoring systems
    - Gas generation
    - Operation and closure design
    - Final grading plan
    - Site life estimate
    - Ancillary facilities
    - Cost estimate for closure and postclosure
    - Financial assurance mechanisms for closure, postclosure, and non-water corrective action requirements

RCRC

RURAL COUNTY REPRESENTATIVES
OF CALIFORNIA

February 13, 2020

Mr. Tim Hall
Materials Management and Local Assistance Division
California Department of Resources Recycling and Recovery
P.O. Box 4025
Sacramento, CA 95812

Transmittal Via E-mail: timothy.hall@calrecycle.ca.gov

RE: Comments on the Senate Bill 1383 Local Services Rates Analysis Draft Report

Dear Mr. Hall:

On behalf of the Rural County Representatives of California (RCRC), I am writing to offer our comments on the Senate Bill 1383 Local Services Rates Analysis Draft Report for the implementation of SB 1383 (Lara, 2016) regulations for organics diversion from our landfills. RCRC is an association of thirty-seven rural California counties, and the RCRC Board of Directors is comprised of an elected supervisor from each of those member counties.

The draft report stresses the need for education of local elected officials and organic waste generators during the waste adoption process, yet nearly ignores the political and practical reality of raising rates on residents across California. In particular, residents living in small, socioeconomically disadvantaged rural jurisdictions, where costs will be particularly hard to socialize due to lack of existing infrastructure and the difficulty in creating future capacity, will bear a disproportionate cost when faced with paying for what is essentially an unfunded mandate with little ongoing investment from the state. While we appreciate the case studies included in the draft report, only one was done in a rural jurisdiction (El Dorado County), and none looked at rural, socioeconomically disadvantaged jurisdictions to parse out the complexities of increasing rates in those areas. This speaks to the need for much more input in the report from a wider variety of jurisdictions statewide on the complications that will undoubtedly arise from changing rates.

1215 K Street, Suite 1650, Sacramento, CA 95814 | www.rcrcnet.org | 916.447.4806 | Fax: 916.448.3154

Ultimately, we believe that the draft report is lacking useful information for most small, rural jurisdictions, particularly those that will be faced with some difficult budgetary decisions in order to fully implement the SB 1383 regulations. The stress on education in the report is valid, but educating the public will be a costly endeavor, and will take many hours of staff time and capital outlay to truly convey the costs this program entails versus the benefits full implementation will provide to the state's climate change efforts. Those educational outreach efforts can be more difficult and politically sensitive in rural communities. We believe much more input is needed from a wider variety of jurisdictions to truly reflect the reality of what raising rates to pay for the implementation of the program will mean across the state.

RCRC appreciates the efforts of CalRecycle to provide analysis and assist local jurisdictions as we prepare to implement this overwhelmingly large-scale program. We remain dedicated to working collaboratively to find a reasonable and responsible way to move forward in meeting our goals.

Please do not hesitate to contact me at sheaton@rcrcnet.org or (916) 447-4806 if you have any questions or want to discuss any our comments further.

Sincerely,

STACI HEATON
Senior Regulatory Affairs Advocate

Rural Counties
Environmental Services
Joint Powers Authority

ESJPA

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY
VICE CHAIR – DENISE CARTER, COLUSA COUNTY
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)
TAG CHAIR – VACANT
TAG VICE CHAIR – TODD STORTI, BUTTE COUNTY
PROGRAM MANAGER – STACI HEATON

Mr. Tim Hall
Materials Management and Local Assistance Division
California Department of Resources Recycling and Recovery
P.O. Box 4025
Sacramento, CA 95812

Transmittal Via E-mail: timothy.hall@calrecycle.ca.gov

RE: Comments on the Senate Bill 1383 Local Services Rates Analysis Draft Report

Dear Mr. Hall:

On behalf of the 24-member Rural Counties' Environmental Services Joint Powers Authority (ESJPA), thank you for the opportunity to provide comments on the SB 1383 Local Services Rates Analysis Draft Report. Our members represent Boards of Supervisors, Public Works Directors, Solid Waste Managers, and Recycling Coordinators. Our members are responsible for operating or overseeing their jurisdictions solid waste operations.

The purpose of this report is to provide information regarding the cost impacts of SB 1383 to local jurisdictions, which are tasked with enforcing most of the provisions of the law. While we appreciate the information in the report, there are several areas where the report is lacking or superficial especially related to rural jurisdictions. These areas are discussed by topic.

Overview

The report does not adequately discuss the impact of service rates related to mandatory procurement, enforcement, and edible food implementation. All of these activities will require significant costs to jurisdictions.

Mandatory organics collection versus self-haul

Although the report mentions the allowance for self-hauling of organics, the concept is not analyzed as an option and the report focuses on mandatory collection options. While achieving full compliance with the mandates of SB 1383 are difficult without some form of mandatory collection, SB 1383's proposed regulations do not mandate

mandatory collection throughout a jurisdiction. Many rural areas have mandatory collection in the more populated areas, but mandatory collection of even a one cart service is a fiscally irresponsible option in remote areas. Self-hauling of solid waste is an essential option that will still be in place and is recognized in SB 1383 proposed regulations as an option for organics. There is essentially no analysis in the report addressing service rates for self-haul at solid waste facilities where the fees will be assessed.

Rate increases

The report acknowledges the need for significant rate increases but does not acknowledge the disproportionate impact rate increases have on rural areas when costs of service are spread over a much smaller population. The report's Major Findings section acknowledges that rate increases are unpopular with ratepayers. The report also states that "Elected officials and rate-payers may not understand the health, environmental, and economic benefits of diverting organics from landfills to recovery activities like composting and anaerobic digestion". This statement is misleading. Elected officials are challenged with weighing the benefits of solid waste and organics services against essential public services. Presentations have already occurred in our rural areas on the upcoming SB 1383 regulations and elected officials have asked how to evaluate the significant cost increases related to organics service against demands for funding law enforcement, roads, health, and other services. Recent experiences with the closure of beverage container collection sites has tainted the public on solid waste diversion.

Illegal dumping

The report does not discuss incorporation of funding for the anticipated increase in illegal dumping that results whenever solid waste rates are increased. Illegal dumping is a significant issue in rural areas since there is significant open areas. The costs to address illegal dumping should be discussed in the report.

Edible Food Analysis

The report indicates in section 1.05 that it did not address edible food recovery. The cost of edible food recovery will be significant especially to the food banks and other providers due to the need for transportation of edible food, collection, and storage especially the purchase of the needed refrigeration equipment. Jurisdiction's environmental health departments' inspection and enforcement roles will be significantly expanded under the edible food requirement and the report does not provide any analysis on the associated costs of these services to jurisdictions and the edible food providers.

Proposition 218

The report discusses the mechanics of the Proposition 218 process but provides no analysis on situations where rate increases are not subject to Proposition 218 review. There is mention that a proposed fee can be challenged under Proposition 218 but there is no discussion on what options are available if a challenge is successful. Case law is not well established on when Proposition 218 is required or not required. One of our rural areas experienced a successful Proposition 218 challenge to a proposed rate and thus the proposed service was not implemented. Non-implementation of a required SB 1383 service

is not an option. The report needs to have a discussion of this situation and direct jurisdictions on how to proceed.

Capacity planning

The report acknowledges the need for capacity planning by a jurisdiction. Existing organic facilities are limited, especially in rural areas. Many facilities are competing for the same limited capacity. The report acknowledges that additional capacity is needed but it does not address how a jurisdiction will address this problem within the allowable SB 1383 time frame.

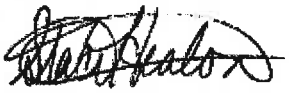
Funding

Funding SB 1383 mandates is a critical component. The report provides some discussion of options for funding but there is minimal analysis on how limited the available funding opportunities are to jurisdictions and the timing to obtain those funds. There is insufficient grant or loan funding available to serve the state. Applying for any type of funding will take considerable time and many grant and loan funds are only released in limited cycles of application. Even if a jurisdiction or its contractor is successful in application for grants or loans ort any other financing there is in Insufficient time to secure financing, and then contact for and build facilities in order to meet the SB 1383 implementation schedule. The report needs to discuss and analyze this reality.

ESJPA appreciates the efforts of CalRecycle to provide analysis and assist local jurisdictions as we prepare to implement this overwhelmingly large-scale program. We remain dedicated to working collaboratively to find a reasonable and responsible way to move forward in meeting our goals.

Please do not hesitate to contact me at sheaton@rcrcnet.org or (916) 447-4806 if you have any questions or want to discuss any our comments further.

Sincerely,



Staci Heaton
ESJPA Program Manager

Solid Waste Operator Survey for Guidance for SB 1383 Regulatory Implementation

Compiled by Larry Sweetser, Consultant, Rural Counties' ESJPA and SWANA, California Chapters

Overview

The questions posed were for operators to provide questions and topics related to implementation of the upcoming SB 1383 as proposed in the October 2, 2019 draft. It was stressed to the responders that this was not an attempt to revise the regulations but to get their concerns with any areas needing clarity and that could be included in a CalRecycle guidance document or potential trainings.

I reached out to the 24-member Rural Counties' Environmental Services Joint Powers Authority (ESJPA) members, members of the SWANA Legislative Task Force, and the Solid Waste Industry Group. A written questionnaire and survey monkey poll were conducted along with direct calls to the target group. Responders were also offered the option to contact Beatrice Poroli directly. I received some responses from ESJPA and SWANA members. Several other solid waste industry representatives indicated that would contact Beatrice Poroli or other CalRecycle staff on their own.

I summarized the responses but also attached the full responses for your use. Responder names and names of facilities were redacted. I also provided some of the questions and issues I have been considering as part of the implementation. I went through the proposed regulations solid waste facility section by section and included questions.

General concern

Many operators have not focused on the implementation issues for solid waste operations and facilities (YET) so specific questions were asked on various aspects of the proposed regulations in order to get them thinking of potential concerns. There is much concern on time delays for implementation of the jurisdiction required diversion of organics related to potential permit changes and the lack of sufficient facilities that may result from potential permitting questions or actual permit approval processes. Even though the permit process is already established, it would be helpful to still provide a guidance that reminds operators of the need to work with their EA and other local agencies when contemplating facility changes that may result in a potential permit or notification change prior to implementing the change, e.g. Addition of new organic operations may need CEQA review.

Permit related concerns

Several respondents indicated potential or likely will be needed to address proposed changes to traffic, hours of operation, tonnage limits, RDRS reporting, or the addition of new activities or processing equipment for organics. There is also concern with the need for air permits or approvals for various organic processing equipment or waste discharge permit changes for adding organics processing such as composting or adding food waste.

Since the various local, CalRecycle, air, and water permits are already established (mostly), the guidance should provide a reminder to consider those various permits and approvals. It would be helpful for the guidance to provide specific reminders about certain requirements:

- Limitations on outside storage of putrescibles especially food waste.

- Removal frequencies limitations, e.g. if 48 hours removal of food is required and a facility is not open on the weekend, acceptance on Friday maybe limited.
- Odor Impact Minimization requirements.
- Processing equipment installation or use might require air district approvals.
- Acceptance of separated organics wastes if not already included in the list of acceptable materials.

Operational Issues of Concern

Guidance/training is needed on the following:

- Conducting the Organics Waste Recovery Efficiency in Section 17409.5.1 for "transfer/processing facilities that conduct processing activities".
    - Assistance on how to do the measurements especially of the recovered organic waste has significant contamination and is being sent to another facility for additional processing?
    - If a facility is conducting processing of recyclables but not organics is the requirement still applicable.
    - Are MRF fines that contain some organics included in the reported organics?
- Measuring Organics Waste Recovered 17409.5.2 (these comments also apply to 17409.5.3, 17409.5.4, and 17409.5.5. Also to Composting operations and facilities in Article 5.0 as applicable and In-vessel Chapter 3.2)
    - Clarity on the 10-day sampling period in section 17409.5.2 would be appreciated especially for facilities open less frequently (e.g., 2 times a week).
    - How to determine "Representative of a typical operating day" and how to take a "random, composite sample" in section 17409.5.2 (b)
    - What is considered an incompatible material 17409.5.2(b)(3)
    - Are conversion factors allowed or do we need to have a scale on site?
    - Does the scale need to be certified by Weights and Measures?
    - Does the measurement protocol need to be written and included in the Facility Plan or TPR? Section 17409.5.2 (d)
    - What guidance is there for EAs to determine accuracy of the measurements? 17409.5.2 (d)
    - Is the operator required to determine if the POTW is authorized? 17409.5.2 (e)
    - Will CalRecycle develop a standardized report format?
- Section 17409.5.6
    - What is meant by "Remnant organic material"? 17409.5.6 (a)(1)
    - How does an operator address a situation if C&D debris is commingled with claimed source separated organics?
    - Provide guidance on what qualifies as "Stored away from other activity areas" for separated organics? 17409.5.6 (b)
    - If specific areas for organics storage areas are not already in the Facility Plan/ or TPR, will it need to be submitted for a permit change?
- Section 17409.5.7 Gray Container Waste Evaluation
    - Guidance and training on conducting gray container waste evaluations would be appreciated.
    - How do you determine representative of a typical operating day and random composite samples? 17409.5.7 (c)
    - Can conversion factors be used or is a scale needed?

- Does it have to be a certified scale?
- Does the measurement protocol need to be written and included in the Facility Plan or TPR?

- Section 17409.5.8 Incompatible Materials Limit in Recovered Organic Waste.
  - Is the determination of incompatible materials calculated on a per load basis or aggregated over a period of time?
  - What is meant by "each type of organic waste"? 17409.5.8. (b)(3) & (4)
- Section 17409.5.9
  - What is meant by "organic waste type"?
  - How will the effectiveness of the sampling protocol be determined? 17409.5.9 (c)(1)(F)
- Section 17409.5.10 Solid Waste Handling at Consolidation Sites.
  - Are the materials to be transported to a transfer station include only organics or also solid waste? 17409.5.10 (d)
  - Can a consolidation site transport be transported to a landfill or only to a transfer facility or operation? 17409.5.10 (d)
- Section 17409.5.10.5 Solid Waste Handling at Co-Located Facilities or Operations.
  - Please provide examples
- Section 17409.5.11 Remnant Organic Material Separated from Gray Container Processing
  - What is meant by "Remnant organic material" 17409.5.11 (a)
- Section 17409.5.12 Transfer/Processing EA Verification Requirements
  - What is the time period to complete the submittal of information? 17409.5.12 (a)
- Section 17414.2 Recordkeeping and Reporting Requirements
  - Can conversion factors be used or is a scale needed?
  - Does it have to be a certified scale?
  - Can records be kept electronically or is paper required? 17414.2 (d)
- Section 18815.5 Reporting Requirements for Transfer/Processors
  - Will detail with the RDRS system require for the required weights 18815.5 (d)(2)

Landfill Issues

- Since MRF fines contain some measurable organics how will this be considered if the MRF fines are proposed for use as daily or alternative intermediate cover? 18983.1 (a)

§21695. CalRecycle—Organic Disposal Reduction Status Impact Report

The requirements for the Status Impact Report are fairly straight forward. The key concerns for clarity are:

- Are the waste types requested the same as the ones listed in the permit? 21695(c)
- Will the Air Board landfill gas survey information be sufficient for this report? (c)(3)(4)
- Is there guidance on determining gas generation? 21695 (c)(7)
- Is a description of the Final grading plan changes acceptable or is a stamped drawing required? 21695 (c)(9)

Full Survey Responses

Q1 - Identify any potential solid waste permit or notification changes for your facility(ies) directly related to SB 1383 that might be required from receiving, storing, installing equipment, processing organics, or transporting off-site collected organics including food waste separately or mixed? Comments on local permits and approvals are not needed since those are not direct CalRecycle issues. Potential changes might include but not limited to permitted hours, organics processing activity or equipment installation, or traffic flow. If you do not think you will need a permit change, please indicate that information.

- No changes
- Increased traffic on access roads may be an issue as the roads are capable of only a certain volume of traffic. We only have one access road. Corresponding increased volume of waste entering the facility will also be an issue. Additionally, CEQA for constructing a facility is going to be difficult as we have close neighbors and are certainly likely to have quite a bit of opposition. Hours are less of an issue. We will certainly need a permit change.
- Relocating entire 75-acre facility. Building new receiving and tipping facility, New APCD Rule = reduced tonnage and buying offsets. The compost facility will likely need a permit addendum. It is not clear if CEQA will be required which would result in extensive time delays to implement programs.
- Permitting any new processing equipment with qualifiable diesel engine with Air Board. Permitting on-site composting. Permitting and siting gasification biomass facility. CEQA must be conducted for these changes.
- The XXXX Transfer Station is not currently permitted to receive, store or process separated food scraps. The solid waste facilities permit would need to be updated including a description of those activities and identified location, almost certainly to be in an enclosure with a roof and some means of processing and/or cleaning that area periodically. As there are bears (as well as dogs, racoons, and opossums) in our region, and rats are frequently delivered with refuse, additional controls may also be needed. Our agency would also need to develop or contract for some facility capable of processing food scraps and marketing animal feed or compost from that facility, which would likely require a full solid waste facility permit as well as modification of the Non Disposal Facilities Element.
- Existing traffic limit is near capacity and odor issues so that may require a permit change.

Q2 - Will your facility qualify as a "High diversion organic waste processing facility" that meets or exceeds an annual average mixed waste organic content recovery rate or 50 percent? If not, please indicate the estimated distance to a "High diversion organic waste processing facility".

- No. At this time, it's unknown how long it will take us to reach 50% recovery rate or High diversion processing facility criteria. We can determine our recovery rate, only after a waster characterization study is performed.
- No and unknown at this time. It will likely be Sacramento, so 120 miles each way.
- Yes
- I am not aware of a 'high diversion organic waste processing facility' in Northern California within 300 miles of XXX County. It is not at all clear how such a facility could produce compost that could be cost competitive to composted cow manures currently available from local dairy farms and cattle ranches without significant financial subsidy. Therefore, the process for siting, permitting, establishing, and

operating facilities capable of processing food scraps to animal feed or compost faces fundamental fiscal challenges for the foreseeable future.

Q3 - For landfill operators, do you have any questions on how to prepare the required landfill Organic Disposal Reduction Status Impact Report (Section 21695)?

- No Applicable.
- N/A, but [Solid Waste Contractor] will likely contract with a third-party firm.
- Yes, more specific guidance is needed on many of the requested analysis items and the level of expected detail, e.g. site development, waste types and volumes, calculation assumptions, how to calculate gas generation changes. It is not clear what the information will be used for which would shape the answer. Will the Air Board landfill gas survey information be sufficient for this report?
- Not applicable.

Q4 - Waste sorts. Do you anticipate any solid waste permit or operational issues with:

1. Receiving segregated organics from self-haul?
2. Impacts from container contamination minimization waste evaluations at your facility(§18984.5(c))?
3. Sampling criteria?
4. CalRecycle reporting requirements
5. Concerns with third party waste characterization companies operating on your site?
6. Health and safety concerns of conducting waste sorts?
7. Management of hazardous and other prohibited wastes found during waste evaluations?

- Yes, we are anticipating operational issues once we start doing container contamination minimization waste evaluations, sampling. We are also anticipating that these evaluations will impact our SOP's for allowing third party contractors on-site and will raise health and safety concerns associated with these waste sorts.
- First, second, third bullets: we have significant operational concerns due to space, odor and labor (which they don't care about). I don't foresee needing to modify the permit though, as long as we bring the MRF in under the existing permit. If we construct a compost facility, we will need to. forth bullet: Not really except how labor intensive it will be. Fifth bullet: yes. They are not liable for accurate data. We are. Sixth bullet: Yes. I don't think I need to expand on that. Visualizing the type of waste that will come in the waste stream is disgusting. Seventh bullet: no.
- #1 – NO, #2 Yes space and SAFETY, #3 OK, #4 why?, #5 Yes, #6, yes, #7 yes
- The XXX Transfer Station would need to have an update to the solid waste facilities permit, as well as a designated space and controls (i.e. roof, building, ability to clean periodically, vector controls, etc.) to receive and temporarily store separated food scraps. It remains unclear how self-haul drop-off of food wastes can be made effective and/or comprehensive. Though mandatory collection could be a comprehensive method of collecting food wastes, our rural community has never considered mandatory collection services as politically or financially attractive proposition. Contamination minimization and route sampling are also anticipated to significantly increase collections costs.
- None anticipated at this time but I don't believe the franchisees have given these issues enough thought and analysis yet.

- Yes. Tipping fees for organic waste will be increased which will likely cause the material to be comingled for the sake of time or dumped on public lands. We do not have sufficient staff to dedicate to container evaluations and waste characterizations, who is going to pay for new staff? Beyond that, the Board of Supervisors may not authorize new personnel to the Solid Waste Division. Third party waste characterization companies may be a good alternative. Some sites are only open two days a week. So the only issue besides paying for their services would be scheduling. It is common that we have snow for six months out of the year while temperatures reach below zero and daily wind. Our facilities do not have indoor or sheltered space to conduct these evaluations. The major concern would be for their safety against the elements. A lesser concern would be attracting bears during daylight hours which is not uncommon. Each of our facilities has designated lockable hazwaste lockers, so management of those items should not be an issue.

Q5 - Are there any other issues you foresee that will impact your solid waste permit or notification tier facility and that you would like to see in a guidance document or training?

- Yes, we would like to have more information on contamination minimization and sampling procedures.
- Not at this time.
- Odor complaints – must have some min standard, must make compost essential public service
- The only facility that has ever produced compost in Del Norte County operated under a notification permit. I believe coordinating a regional planning process for such expanded or new organics processing facilities could help accelerate the development of such facilities in rural communities like ours. Also, solid waste professionals could use additional guidance re. how to most effectively interact with groups dedicated to food recovery for people and animal husbandry, and how to assure that recovery programs follow relevant health and safety codes. (4)

Department of Resources Recycling and Recovery
SCOPE OF WORK
Reduction of Volatile Organic Compounds Emissions from Composting Operations

I. INTRODUCTION/OBJECTIVES

Volatile Organic Compound (VOC) emissions from compost facilities can be highly variable and are influenced by factors such as composting technology, feedstock mix, and operational parameters (initial grind, porosity, saturation, aeration, etc.). This contract will (1) produce a guidance document to assist local air districts in reviewing applications and developing permit conditions for composting facilities, (2) develop technical guidance for compost facility operators regarding strategies to maximize compost system performance while minimizing air emissions, and (3) educate air district staff and compost facility operators through a series of workshops strategically located around the State.

The decomposition of organic materials results in VOC emissions which can be regulated under the federal Clean Air Act (CAA). VOCs are a precursor to ground-level ozone, a component of smog. By manipulating the compost process via specific management practices, VOC emissions may be reduced by 60 to 92 percent compared to organic materials that degrade naturally in an unmanaged process (Buyuksonmez, 2007). However, research is needed to identify specific management practices, operational parameters, feedstock blends, moisture levels, and composting approaches that can effectively manage VOC emissions.

In California, local air districts have the primary responsibility for implementation of the New Source Review (NSR) program, which regulates emissions from industrial sources that emit air pollutants. The California NSR permit program is derived from the federal Clean Air Act. Specific to NSR, each air district must include in its air quality attainment plan a stationary source control program designed to achieve no net increase in emissions of nonattainment pollutants or their precursors for all new or modified sources that exceed emissions thresholds.

As part of the permitting process, a project is subject to the rules of each individual air district. If an air district's NSR rules require it, a project must calculate emissions from each individual component source and total emissions to determine the applicability of various permitting requirements. In addition, the applicant may be required to conduct a survey to determine what methods, measures, or control technologies are available for controlling emissions. During the permit process, an air district can prepare an engineering analysis that includes emission calculations, an analysis of whether the project will meet district, state, and federal air quality regulations, assumptions used to evaluate the acceptability of the project, and required conditions of design and operation to achieve and maintain compliance. This contract will assist both local air districts and compost facility operators with the permitting process.

This contract shall directly help California achieve the requirements of Senate Bill 1383 (Lara, Chapter 395, Statutes of 2016) which requires a reduction in the disposal of organic materials in landfills by 50 percent by 2020 and 75 percent by 2025. CalRecycle estimates the state will need between 75 and 100 new or expanded compost and anaerobic digestion facilities to recycle sufficient organic materials to achieve the SB 1383 goals.

II. WORK TO BE PERFORMED

The contractor shall collect and compile existing VOC emissions data from all publicly available sources to determine whether specific operational parameters result in specific VOC emission rates, conduct field research to fill in data gaps, and prepare a guidance document. The guidance document will assist local air districts in reviewing applications and developing permit conditions for composting facilities and develop technical guidance for compost facility operators regarding strategies to maximize compost system performance while minimizing air emissions. The contractor will also conduct a series of workshops strategically located around California to educate air district staff and compost facility operators.

Composting operational parameters include, but are not limited to, feedstock blends, carbon-to-nitrogen ratio, aeration rates and related oxygen levels, initial grind size and its impacts on porosity and bulk density, watering practices including saturation levels, pile temperature, and pile size and shape. Composting technologies include, but are not limited to fabric covers, compost caps (e.g. 6"-12" of finished compost on top of piles), biofilters, and open windrows. Feedstock blends include materials reasonably expected to be diverted from landfill disposal pursuant to SB 1383, including food and green materials, liquid or solid digestate from anaerobic digesters, and agricultural materials such as food processing residues.

The contractor shall perform emissions testing to fill in data gaps to identify VOC emissions rates for specific operational parameters. The work performed pursuant to the contract shall use industry standard methods and testing protocols. The contractor shall consider various feedstock blends that may include, but not be limited to green waste, food waste, anaerobic digestate, and organics separated from the disposed municipal solid waste stream (MSW).

The contractor shall prepare a guidance document that relies upon scientific data to correlate composting operational parameters and technologies to a range of expected VOC emission rates. The final guidance document, and all supporting documents and data sets, shall be of sufficient quality and scientific rigor to be relied upon by local or regional air quality management districts, the California Air Resources Board (ARB), CalRecycle, and stakeholders for permitting, development of regulations, policy decisions, and derivative work.

The contractor shall conduct workshops throughout the state in locations agreed upon by CalRecycle, air districts, and the contractor. Workshops will be

conducted in key air districts that (1) have a high potential to construct new or expanded compost facilities, (2) have impacted air quality or are upwind of impacted districts, (3) generate large amounts of organic waste, or (4) are within close proximity to markets for compost products.

III. TASKS IDENTIFIED

All tasks must be accepted, and all deliverables must be approved in writing by the CalRecycle contract manager prior to payment for each task and deliverable.

Task 1: Meet with Stakeholders, Acquire Data, and Identify Operational Parameters.

The contractor shall collaborate with CalRecycle, local air district staff and stakeholders to ensure proposed work is appropriate to accomplish the objectives of this contract. In particular, the contractor shall meet with staff associated with the CalRecycle-ARB-CAPCOA (California Air Pollution Control Officers Association) Compost Working Group to (1) request assistance to acquire all relevant air emissions data from studies which have been submitted to the districts, and (2) receive feedback on proposed scope and focus of study. The contractor shall meet, either by phone or in person, with staff from the South Coast Air Quality Management District, San Joaquin Valley Air Pollution Control District, Bay Area Air Quality Management District, and at least two other state air quality districts to receive input. The contractor shall keep detailed records of all meetings. The contractor shall also schedule and arrange at least two meetings with appropriate compost facility operators to gain an understanding of their perspectives regarding the practicality of implementing operational parameters. The contractor will also need to identify and recruit compost facilities to participate in the field research (see Task 4) portion of the contract.

The contractor shall identify and address key operational parameters, and composting technologies and systems that can be parametrically compared to a baseline. Composting operational parameters include, but are not limited to, feedstock blends, carbon-to-nitrogen ratio, aeration rates and related oxygen levels, initial grind size and its impacts on porosity and bulk density, watering practices including saturation levels, pile temperature, and pile size and shape. Composting technologies include, but are not limited to fabric covers, biofilter compost caps (e.g. 6"-12" of finished compost on top of piles), biofilters, and open windrows.

The Contractor shall suggest methods and processes to compile existing VOC emission data that can be attributed to a specific operational parameter and/or technology. If any data is deemed proprietary, Contractor shall strategize how to effectively aggregate data to protect individual facilities. The Contractor shall identify data gaps essential to manage expected SB 1383 feedstocks and take into account air district permitting concerns identified through the collaborative stakeholder process.

Task 2: Analyze existing emissions data.

The Contractor shall analyze all available data to determine key data gaps, especially with regard to the types of materials and feedstock blends likely to be collected as a result of SB 1383. Feedstock blends include materials reasonably expected to be diverted from landfill disposal pursuant to SB 1383, including food, food soiled paper, green materials, liquid or solid digestate from anaerobic digesters, and agricultural materials such as food processing residues. The contractor shall present this analysis to CalRecycle and to staff associated with the CalRecycle-ARB-CAPCOA Compost Working Group for further discussion. The Contractor shall meet with the CalRecycle Contract Manager, to discuss the preliminary findings and data gaps, and based on those findings, the CalRecycle contract manager will schedule up to two meetings with stakeholders to further discuss the preliminary findings and data gaps and get feedback.

Task 3: Design of Field Research Project and preparation of detailed project budget.

After determining key data gaps, the Contractor shall design a field research project to fill key data gaps. The Contractor shall prepare a detailed budget for funds allocated to the field research portion of the project. The detailed budget shall indicate the number of emission samples collected, the operational parameters being tested, and the types of pollutants tested. The Contractor shall present the proposed Field Research Project and associated budget to the CalRecycle contract manager for approval. The CalRecycle Contract Manager will share the proposed field research with the CalRecycle-ARB-CAPCOA Compost Working Group for discussion and concurrence. The Contractor shall incorporate feedback from the Compost Working Group in finalizing study design. After CalRecycle approves the budget, the contract will be amended to add the detailed budget for Task 4 to the Agreement. No work will be performed on Task 4 until the contract amendment is executed and approved by the Department of General Services.

Task 4: Conduct Field Research Project.

The Contractor shall conduct the field research and collect all field data using approved methods. All samples shall be sent to an accredited laboratory. The Contractor shall follow accepted best practices for sample storage and transportation, as indicated in the Field Research plan and associated budget. The Contractor shall consult with the Compost Working Group while planning the field research project and arrange for site visits to allow observation of the field research activities.

Task 5: Draft Guidance Document and Workshops.

After all scientifically valid data is compiled and analyzed, the Contractor shall prepare a draft Guidance Document. CalRecycle has the right to review and comment on the preliminary draft report as well as solicit comments on it from the

CalRecycle-ARB-CAPCOA Compost Working Group. The Contractor shall revise the preliminary draft report in response to comments received prior to circulating the draft report for public comment. All data used to calculate VOC emissions rates or ranges shall be formatted to enable ease of understanding. Contractor shall use data tables, charts, and graphs to clarify important observations and trends, and to better enable contrasts and comparisons consistent with ADA accessibility requirements.

In addition to describing lessons learned from the data analysis and Field Research Project, the Final Report shall provide practical techniques by which operators can implement practices that reduce air emissions from composting through the following categories:

a. Optimum food material/green material blends for various types of composting systems.
b. Optimum required aeration rates to maintain aerobic conditions in all major composting systems. Strategies to prevent and diffuse fermentation events.
c. Optimum porosity/bulk density for ground green/woody materials, specifically for base layers and finished compost caps. Strategies to prevent and reverse compaction and air channeling.
d. Strategies for managing different types of composting systems, positive air, negative air, reversible systems, biofilter compost caps, biofilters and fabric covers. Strategies to ensure stable conditions before removing covers.
e. Moisture management, impact of solid or liquid digestates, food wastes and other liquids on moisture throughout the pile. Initial wetting strategies to obtain optimum moisture, sprinklers and other methods to enhance emissions control on windrows, eASP systems and on biofilter compost caps.
f. When materials are considered stable and mature. What are the parameters for moving materials to the "curing area." Does the addition of food waste impact the length of time necessary to achieve acceptable stability and maturity?

Once CalRecycle has concluded its preliminary review of the draft Guidance Document, the Contractor shall schedule a series of no less than seven workshops around the state. Workshops shall be directed toward air quality district staff and compost facility operators. At least three of the workshop locations shall be in or within 50 miles of the South Coast, San Joaquin and Bay Area air quality districts. One workshop shall be conducted at the CalEPA headquarters building in Sacramento, and one shall be in a rural location, meaning in a county having less than 200,000 tons of disposal per year. The workshop at the CalEPA building shall be recorded and made available on CalRecycle's website.

Task 6: Provide Regular Updates to Staff and Stakeholders.

The Contractor shall share data on a regular basis, provide monthly updates to CalRecycle, and participate in conference calls to discuss progress on all of the prior tasks when requested. The Contract Manager reserves the right to request interim deliverables, to request the Contractor meet and discuss project outcomes or interim deliverables with external bodies such as staff affiliated with the CalRecycle-ARB-CAPCOA Compost Working Group. If difficulties or delays arise during the implementation of any aspect of the project, the Contractor shall apprise the CalRecycle Contract Manager within one week. The Contractor shall communicate no less than once a month on the progress of the Workplan and the Field Research Plan implementation, either in writing or on conference calls, help arrange research site tours, and may be asked to prepare interim deliverables or presentations on the project during this time.

Task 7: Final Guidance Document.

Following the workshops, the Contractor shall prepare and submit a Final Guidance Document that integrates the results of the workshops and public comments with the Draft Guidance Document. The Final Guidance Document is subject to the review and approval of the CalRecycle contract manager, and must meet all standards as outlined in the CalRecycle Contractor Publications Guide (https://www.calrecycle.ca.gov/contracts/pubguide).

The executive summary of the Final Guidance Document shall contain a summary of the initial data analysis, a summary of the Field Research Project, and a provide a table summarizing the expected impact on emissions ranges for items **a-f** in Task 5, above.

Appendices to the Final Guidance Document shall fully document all methodologies used to collect data, provide raw data collected during the Field Research Project, and provide all calculations critical to the correlation of composting operational parameters and technologies to VOC emissions.

Documents created through this project must be fully ADA compliant, including appendices, and delivered in a format acceptable for inclusion on State-government-run web sites. The Contractor shall follow CalRecycle's Contractor Publication Guide (https://www.calrecycle.ca.gov/contracts/pubguide). Report revisions may be required by the contract manager prior to written approval of the Final Guidance Document.

IV. CONTRACT/TASK TIME FRAME

It is anticipated that this contract will be awarded in May 30, 2020 and expire in May 30, 2022. CalRecycle staff will develop a work order for each task under this contract and the deliverables and time frame for the respective activities will be included in each work order.

Action/Work Product	*Date Finished*
Task 1 – Acquire Data & Identify Parameters	Nov. 1 2020
Task 2 – Analyze Data	Jan. 15, 2021
Task 3 – Design Field Research	March 1, 2021
Task 4 – Conduct Field Research	June 1, 2021
Task 5 – Draft Guidance Document & Workshops	Dec. 1, 2021
Task 6 – Update Staff & Stakeholders	Feb. 30, 2022
Task 7 - Final Report	April 30, 2022

V. COPYRIGHT PROVISION

The Contractor shall establish for CalRecycle good title in all copyrightable and trademarkable materials developed as a result of this Scope of Work. Such title shall include exclusive copyrights and trademarks in the name of the State of California, CalRecycle.

VI. CALIFORNIA WASTE TIRES

Unless otherwise provided for in this Scope of Work, in the event the Contractor and/or subcontractor(s) purchases waste tires or waste-tire derived products for the performance of this Scope of Work, only California waste tires and California waste tire-derived products shall be used. As a condition of payment under the agreement, the Contractor shall be required to provide documentation substantiating the source of the tire materials used during the performance of this Scope of Work to the contract manager.

VII. WASTE REDUCTION AND RECYCLED-CONTENT PRODUCT PROCUREMENT

In the performance of this Agreement, Contractor shall use recycled content, used or reusable products, and practice other waste reduction measures where feasible and appropriate.

Recycled-Content Products: All products purchased and charged/billed to the CalRecycle to fulfill the requirements of this contract shall be Recycled-Content Products (RCPs), or used (reused, remanufactured, refurbished) products. All RCPs purchased or charged/billed to the CalRecycle to fulfill the requirements of the contract shall have both the total recycled-content (TRC) and the postconsumer content (PC) clearly identified on the products. Specific requirements for the aforementioned purchases and identification are discussed in the Terms and Conditions of the Contractual Agreement under Recycled-Content Product Purchasing and Certification.

The Contractor should, at a minimum, ensure that the following issues are addressed, as applicable to the services provided:

WRITTEN DOCUMENT PROVISION

All documents and/or reports drafted for publication by or for CalRecycle in accordance with this contract shall adhere to CalRecycle's *Guidelines For Preparing CalRecycle Reports (available upon request)* and shall be reviewed by CalRecycle's Contract Manager in consultation with one of CalRecycle's editors.

In addition, these documents and/or reports shall be printed double-sided on one hundred percent (100%) recycled-content paper. Specific pages containing full-color photographs or other ink-intensive graphics may be printed on photographic paper. The paper should identify the postconsumer recycled content of the paper (i.e., "printed on 100% postconsumer paper"). When applicable, the Contractor shall provide the contract manager with an electronic copy of the document and/or report for CalRecycle's uses. To the greatest extent possible, soy ink instead of petroleum-based inks should be used to print all documents

CONFERENCING PROVISION

The Contractor shall take any and all steps necessary to make sure that the event is a model for future recycling, waste prevention, diversion, buy recycled, and waste management events.

Paper Products:
All paper products used to fulfill the requirements of this contract (nametags, badges, letters, envelopes, brochures, etc.) must contain at least 30% postconsumer recycled content fiber.

Re-usable Cups, Plates & Utensils:
To the greatest extent possible, use re-usable/washable utensils, dishes, tableware, etc., rather than single-use disposable products.

Leftover Food/Beverages:
All leftover food and/or beverages associated with the event will be donated to an established food donation outlet. Arrangements for the donation must be made prior to the date of the event. CalRecycle staff will assist the Contractor in identifying these donation outlets, if needed.

Recycling/Composting:
Arrangements must be made with the venue, sponsor, or by contract, to provide adequate collection bins for recyclables, organics (food waste) or biodegradable materials, and trash (non-recyclables). The bins should contain at least 30% post-consumer plastic. In addition, the Contractor shall work with the venue and/or sponsors to maximize diversion of the discarded materials.

Soy-based Printing Ink:
To the greatest extent possible, soy ink instead of petroleum-based inks should be used to print all documents needed for the event.

Rural Counties
Environmental Services
Joint Powers Authority

ESJPA

CHAIR – MICHAEL KOBSEFF, SISKIYOU COUNTY
VICE CHAIR – DENISE CARTER, COLUSA COUNTY
EXECUTIVE DIRECTOR – GREG NORTON

TECHNICAL ADVISORY GROUP (TAG)
TAG CHAIR – JIM MCHARGUE, AMADOR COUNTY
TAG VICE CHAIR – TODD STORTI, BUTTE COUNTY
PROGRAM MANAGER – STACI HEATON

MEMORANDUM

To: **ESJPA Board of Directors**

From: **Staci Heaton, ESJPA Program Manager**
Leigh Kammerich, RCRC Regulatory Affairs Specialist

Date: **March 2, 2020**

RE: **California Air Resources Board Advanced Clean Truck Rule**

Summary

The California Air Resources Board is establishing sales requirements on truck manufacturers and reporting requirements for fleet operators of light/medium duty and heavier trucks. This memo provides a summary of the requirements and their potential impacts on RCRC member counties.

Background

In 2016, the California Air Resources Board (CARB) began discussions on how to accelerate the market for zero emission commercial vehicles in California. The initial focus was on local truck and last mile delivery, but in 2018 CARB staff turned its attention to truck manufacturers and the concept of placing requirements to sell a portion of light/medium duty and heavier vehicles as zero emission vehicles at the direction of Governor Edmund G. Brown, which was later accelerated by an Executive Order from Governor Gavin Newsom in September 2019. Eventually, the discussions led to the inclusion of reporting requirements for large entities as defined by 100 or more trucks or an entity that had gross annual revenues greater than $50 million. The reporting requirements are detailed, including a breakdown of each fleet by type of fuel used, gross vehicle weights of each vehicle, what they are used to haul, and how many and what types of fueling stations are located onsite. The most recent version of the proposal, known as the Advanced Clean Trucks (ACT) Rule, was released on October 22, 2019 (Attachment 1).

Issue

RCRC's concerns with the ACT proposal are two-fold. First, many fleet operators in RCRC member counties purchase used vehicles from urban areas, where turnover is accelerated by more advanced emissions reductions requirements. Any restrictions on sales of diesel or compressed natural gas (CNG) vehicles will significantly shrink the pool of available used

vehicles in the future, making it difficult for fleet operators in rural areas where electrification technologies aren't readily available and won't be for some time.

Second, while the initial discussions of the ACT Rule and the draft Proposed Regulation Order framed the reporting requirements within the realm of "large entity" fleets, the most recent hearing on the Rule, held on December 12, 2019, clarified that all municipal fleets would be required to comply with the reporting requirements regardless of size or location. This includes local government fleets and fleets that contract with local governments, such as solid waste vehicles. The reporting requirements are onerous and likely portend further regulatory restrictions on fleet makeup and purchases in the future.

While RCRC did not file formal comments, staff did send a letter to CARB staff outlining our concerns with both the proposal and CARB's near complete lack of outreach to local governments on the rule (Attachment 2) with an emphasis on impacts to solid waste operations, and requested a meeting to discuss the proposal. CARB held a workshop on the regulations on February 20, which RCRC staff attended and received public acknowledgement from CARB staff that they need to work RCRC on rural exemptions for the rule. RCRC plans to file comments on the record once the next draft is released in March.

Attachments

- Advanced Clean Trucks Proposed Regulation Order
- RCRC Letter to the California Air Resources Board, Dated December 13, 2019

RURAL COUNTY REPRESENTATIVES
OF CALIFORNIA

December 13, 2019

Mr. Paul Arneja
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Transmittal Via E-mail: paul.arneja@arb.ca.gov

RE: Proposed Advanced Clean Trucks (ACT) Regulation and a Draft Environmental Analysis (Draft EA)

Dear Mr. Arneja:

On behalf of the Rural County Representatives of California (RCRC), we write with great concern regarding the Proposed Advanced Clean Trucks (ACT) Regulation, specifically the near-term reporting requirements for all local government entities. RCRC is an association of thirty-seven rural California counties, and the RCRC Board of Directors is comprised of elected supervisors from those member counties.

RCRC is very concerned with the lack of outreach by the California Air Resources Board (CARB or Board) on the proposed ACT Regulation. The language of the ACT regulation and staff's Initial Statement of Reasons (ISOR) is very unclear with how it portrays large entity reporters. At the public workshop held on December 12, 2019 it became evident that the intent is for all municipalities, regardless of fleet size, be considered large entities and to be subject to the one-time reporting requirement. This is an insurmountable task for many rural local governments who already have staffing and budgetary challenges in complying with regulatory mandates in place by other agencies. Not only will it be impossible to comply as currently written, the penalties are exorbitant and will be levied without regard to good faith efforts.

We request that smaller municipal jurisdictions be exempted from the reporting requirement. CARB would be better served by focusing on the most populous, urbanized counties and should exempt rural counties. The fifteen most populated counties (over 750,000 persons), for example, represent nearly 83 percent of the state's population and have the state's worst air quality from mobile sources. Those areas should remain the focus of this rulemaking until the technologies under scrutiny become more widely implementable.

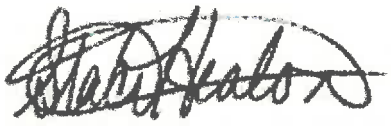
1215 K Street, Suite 1650, Sacramento, CA 95814 | www.rcrcnet.org | 916.447.4806 | Fax: 916.448.3154

RCRC has been very active in CalRecycle's SB 1383 regulations for organics diversion from our landfills. As you may know, SB 1383 sets a statewide goal that 75 percent of all organic waste — Short-Lived Climate Pollutants or SLCP — be recycled and recovered from landfills as early as 2025. This has become an untenable, unfunded state mandate. The state has provided no funding for the infrastructure necessary to achieve their stated goals but propose to levy substantial penalties on local governments and solid waste ratepayers.

In order to accomplish organics diversions from landfills and meet the stringent procurement mandates, we must develop a market for low carbon waste-based fuels. Many of our solid waste and public works managers are utilizing these alternative fuel vehicles and would be disadvantaged by the zero-emission vehicles (ZEV) as defined in the proposed ACT regulation, and could not comply with other concurrent state mandates, such as SLCP diversions. This is just one example of an existing regulatory mandate that will make it nearly impossible for small rural jurisdictions to comply with the ACT requirements.

We would be happy to meet with you to discuss these concerns and how we can work together for better outreach in the future, particularly before any final decision is made by the Board on the ACT proposal. We would also strongly encourage you to develop a comprehensive outreach plan to local governments, particularly in rural areas of the state, prior to moving forward with the next phase of this rulemaking. Please do not hesitate to contact me at sheaton@rcrcnet.org if you would like to discuss this letter or the challenges the ACT requirements pose to rural counties.

Sincerely,



STACI HEATON
Senior Regulatory Affairs Advocate

APPENDIX A – PROPOSED REGULATION ORDER

Adopt new sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, 1963.5, 2012, 2012.1, 2012.2, and 2012.3, title 13, California Code of Regulations, to read as follows:

(Note: The entire text of sections 1963 - 1963.5 and 2012 - 2012.3 set forth below is new language in "normal type" proposed to be added to the California Code of Regulations.)

Section 1963. Advanced Clean Trucks Purpose, Applicability, Definitions, and General Requirements.

(a) *Purpose.* The purpose of these regulations is to accelerate the market for zero-emission vehicles to reduce emissions of oxides of nitrogen (NOx), fine particulate matter (PM), other criteria pollutants, toxic air contaminants, and greenhouse gases (GHG) from medium- and heavy-duty vehicles.

(b) *Scope and Applicability.* Any manufacturer that certifies vehicles over 8,500 lbs. gross vehicle weight rating for sale in California is subject to sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, and 1963.5 except as specified in section 1963(e).

(c) *Definitions.* The following definitions apply for sections 1963 through 1963.5:

(1) "All-electric range" means the same as the all-electric range defined and tested per the requirements of 17 CCR section 95663(d) for vehicles with a GVWR over 8,500 lbs.

(2) "Class 2b-3" means a vehicle with a GVWR that is 8,501 pounds up to 14,000 pounds.

(3) "Class 2b-3 Group" means the group of vehicles including all vehicles with a GVWR that is 8,501 pounds up to 14,000 pounds.

(4) "Class 4" means a vehicle with a GVWR that is 14,001 pounds up to 16,000 pounds.

(5) "Class 4-8 Group" means the group of vehicles including all vehicles with a GVWR that is 14,001 pounds and above, except for a tractor as defined in section 1963(c)(18).

(6) "Class 5" means a vehicle with a GVWR that is 16,001 pounds up to 19,500 pounds.

(7) "Class 6" means a vehicle with a GVWR that is 19,001 pounds up to 26,000 pounds.

(8) "Class 7" means a vehicle with a GVWR that is 26,001 pounds up to 33,000 pounds.

(9) "Class 7-8 Tractor Group" means a group of vehicles, that have a GVWR 26,001 and above, including all vehicles that meet the definition of "tractor" as defined in section 1963(c)(18), except "yard tractors" as defined in section 1963(c)(20).

(10) "Class 8" means a vehicle with a GVWR that is 33,000 pounds and above.

(11) "Excluded bus" means a vehicle that meets the following conditions:

(A) A passenger-carrying vehicle with a GVWR as defined in California Vehicle Code section 350 that is 14,001 pounds or more; and

(B) Has a load capacity of fifteen (15) or more passengers; and

(C) Is not a cutaway vehicle as defined in 13 CCR section 2023 (b)(17); and

(D) Is not a school bus as defined in the California Vehicle Code section 545.

(12) "Gross Vehicle Weight Rating (GVWR)" has the same meaning as GVWR in California Vehicle Code section 350.

(13) "Manufacturer" means any person engaged in the manufacturing or assembling of new motor vehicles, or importing such vehicles for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles, but shall not include any dealer with respect to new motor vehicles received in commerce. In general, this term includes any person who manufactures or assembles a vehicle (including a trailer or another incomplete vehicle) for sale in California or otherwise introduces a new motor vehicle into commerce in California. This includes importers who import vehicles for resale and entities that assemble glider vehicles.

(14) "Model year" means a designation meeting the definition of "model year" under 17 CCR section 95662(a)(16).

(15) "Near-zero-emission vehicle" or "NZEV" means one of the following:

(A) A plug-in hybrid electric vehicle which has the same definition as that in 40 CFR section 86.1803-01, amended on July 1, 2011, incorporated by reference herein, that achieves a minimum all-electric range as defined in section 1963(c)(1).

(B) A hybrid electric vehicle that has the capability to charge the battery from an off-vehicle conductive or inductive electric source and achieves a minimum all-electric range as defined in section 1963(c)(1).

(16) "NZEV Credit" means a credit generated by producing and selling in California a NZEV.

(17) "Pickup truck" means a vehicle that is originally sold by the manufacturer with an OEM equipped open bed as defined in 13 CCR section 150.04, and does not include a vehicle that is equipped with a bed-mounted storage compartment unit commonly called a "utility body."

(18) "Tractor" means a vehicle meeting one of the following definitions:

(A) The definition of "tractor" in 17 CCR section 95662(a)(23), or

(B) The definition of "vocational tractor" in 17 CCR section 95662(a)(27).

(19) "Vehicle" means equipment that meet the following criteria:

(A) Has a GVWR that is 8,501 pounds and above; and

(B) Is equipment intended for use on highways, and meets the definition set forth in 17 CCR section 95662(a)(26); and

(C) Is not a trailer as defined in 17 CCR section 95662(a)(24); and

(D) Is not an excluded bus as defined in section 1963 (c)(11).

(20) "Yard Tractor" means a vehicle, with an on-road engine and a hydraulically elevated fifth wheel that is used in moving and spotting trailers and containers at a location or facility. Yard tractors are also commonly known as yard goats, hostlers, yard dogs, trailer spotters, or jockeys.

(21) "Zero-emission vehicle" or "ZEV" means a vehicle with a drivetrain that produces zero exhaust emission of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes or conditions.

(22) "ZEV Credit" means a credit generated by producing and selling a ZEV into California.

(d) *General Requirements*. Except as provided in section 1963(e), a manufacturer is subject to the following requirements:

(1) *Credits Must Match or Exceed Deficits*. Except as provided in section 1963.3(b), a manufacturer must meet all of the following conditions to be determined to be in compliance:

(A) *Class 2b-3 and Class 4-8 Group Deficits*. The number of ZEV and NZEV credits retired in all three class groups must equal or exceed the annual aggregate deficits incurred in a given model year in the Class 2b-3 and Class 4-8 groups.

(B) Class 7-8 *Tractor Group Deficits*. The number of tractor ZEV and tractor NZEV credits retired in the Class 7-8 tractor group must equal or exceed the annual aggregate deficits incurred in a given model year in the Class 7-8 tractor group.

(e) *Low Volume Exemption*. Manufacturers that never exceed 500 annual average sales of Class 2b and greater vehicles in California for the three prior model years are exempt from the requirements of sections 1963 through 1963.5. Manufacturers that meet this exemption as of 2021 but subsequently exceed 500 annual average sales in any model year become subject to the requirements of sections 1963 through 1963.5 starting the second model year after the average annual sales exceeded the threshold.

(f) *Voluntary Credit Generation*. Any manufacturer that is exempt from the regulation requirements per section 1963(e) may elect to generate ZEV or NZEV credits per the provisions of section 1963.2. If a manufacturer chooses to generate ZEV or NZEV credits, it must comply with the credit generation, banking, and trading provisions of section 1963.2, the reporting and recordkeeping requirements of section 1963.4, and the enforcement provisions of section 1963.5.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.1. Advanced Clean Trucks Deficits

(a) *Basic Requirement*. Beginning with the applicable effective dates, a manufacturer must comply with the following requirements:

(1) *Deficit Generation*. Starting with the 2024 model year, a manufacturer shall annually incur deficits based on the manufacturer's annual sales volume. The aggregate number of deficits incurred annually must be matched with a minimum of the same number of ZEV and NZEV credits

as calculated in section 1963.2 and determine compliance as described in section 1963.3.

(A) *Pickup Exclusion.* Sales of complete pickup trucks in the Class 2b-3 group are excluded from the annual sales volume when determining deficits generated until the 2027 model year. If vehicles cannot be identified as being sold as complete pickups by the vehicle identification number (VIN), the vehicles must be included in the annual sales volume.

(B) *Deficit Calculation.* Deficits shall be calculated each model year. For each vehicle group, the annual deficit is calculated as the sum of the product of the model year percentage requirement from Table A-1, and the appropriate weight class modifier for each vehicle from Table A-2.

Table A-1. ZEV Sales Percentage Schedule

Model Year	Class 2b-3 Group*	Class 4-8 Group	Class 7-8 Tractors Group
2024	3%	7%	3%
2025	5%	9%	5%
2026	7%	11%	7%
2027	9%	13%	9%
2028	11%	24%	11%
2029	13%	37%	13%
2030 and beyond	15%	50%	15%

*Excluding pickup trucks until the 2027 model year

Table A-2. Weight Class Modifiers

	Class 2b-3	Class 4-5	Class 6-7**	All Class 8 and Class 7 Tractors
Weight Class Modifier	0.6	1	1.5	2

**Excludes Class 7 tractors

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.2. Advanced Clean Trucks Credit Generation, Banking, and Trading

Beginning with the 2021 model year, the following requirements apply:

(a) *ZEV Credit Calculation.* A manufacturer may generate ZEV credits for each ZEV certified to California standards and sold in California for the manufacturer-designated model year. The ZEV credit generated for each vehicle sold is equal to the value of the appropriate weight class modifier in Table A-2 of section 1963.1.

(b) *NZEV Credit Calculation*. Until the end of the 2030 model year, a manufacturer may generate NZEV credits for each NZEV certified to California standards and sold in California for the manufacturer-designated model year. The NZEV credit generated for each vehicle sold is calculated as the product of the appropriate weight class modifier in Table A-2 of section 1963.1, and the NZEV factor value as calculated in section 1963.2(b)(1).

(1) *NZEV Factor Value*. The NZEV factor used to calculate NZEV credits shall be calculated as 0.01 multiplied by the all-electric range, and is not to exceed 0.75.

(c) *Rounding.* If the calculated number of summed credits for a vehicle group is not equal to a whole number, the summed number shall round up to the nearest tenth when the fractional part of the required number of credits is equal to or greater than 0.05, and round down if less than 0.05.

(d) *Credit Banking.* Credits generated in excess of the annual deficit requirements may be banked for future use. Banked credits may be used to satisfy deficits per section 1963.3 and have limited lifetimes per section 1963.2(g).

(e) *Credit Trading and Transfer.* Credits may be traded, sold, or otherwise transferred between manufacturers. Credits transferred in this manner may be used to satisfy deficits per section 1963.3 and have limited lifetimes per section 1963.2(g), and must be reported to the Executive Officer in accordance with the requirements of section 1963.4.

(f) *Credit Accounting*. Credits must be separately accounted for based on model year generated. NZEV credits must be accounted for separately from ZEV credits. Class 7-8 tractor group credits must be accounted for separately from Class 2b-3 group and Class 4-8 group credits.

(g) *Limited Credit Lifetime*. Credits have limited lifetimes as follows:

(1) *2021 to 2023 Model Year.* Credits generated in the 2021, 2022 and 2023 model years expire at of the end of the 2030 model year, and are no longer available to be used to meet compliance for 2031 and later model years. For example, credits generated during the 2022 model year may be used to meet compliance requirements until the end of the 2030 model

year, and may not be used to meet 2031 model year compliance requirements.

(2) *2024 Model Year and Beyond.* Credits generated with 2024 and subsequent model years expire at of the end of the 4th subsequent model year following the current model year and are no longer available to be used to meet compliance. For example, credits generated during the 2024 model year may be used to meet compliance requirements until the end of the 2028 model year, and may not be used to meet 2029 model year compliance requirements.

(h) *Zero-Emission Powertrain Certification for ZEVs.* Beginning with the 2024 model year, ZEVs over 14,000 pounds GVWR and incomplete medium-duty ZEVs from 8,501 through 14,000 pounds GVWR produced and delivered for sale in California must meet the requirements of 13 CCR section 1956.8 and 17 CCR section 95663 as amended by the Zero-Emission Powertrain Certification regulation to receive ZEV credit.

(i) *No Double Counting for Advanced Clean Cars ZEVs.* Manufacturers that produce and deliver for sale in California Class 2b-3 ZEVs may choose to count those vehicle as earning credits towards meeting the requirements of 13 CCR section 1962.2 or may count those vehicles as earning credits to meeting the requirements of section 1963.2, but may not count the same vehicles as earning credits in both regulations. Manufacturers must report information per section 1963.4(d) to declare which regulation the vehicle sales will be counted toward.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.3. Advanced Clean Trucks Compliance Determination

(a) *Annual Compliance Determination.* Manufacturer's deficit and credit account balances must be calculated annually using a manufacturer's end of year report and compliance shall be determined based on whether the manufacturer's credits exceed their deficits.

(b) *Requirement to Make Up a Deficit.* A manufacturer that retires fewer ZEV or NZEV credits than required to meet its credit obligation in a given model year must make up the deficit by submitting a commensurate number of ZEV credits to satisfy the deficiency by March 31 of the following model year. Deficits carried over to the following year cannot be made up with NZEV credits.

(c) *Credit Retirement Order.* Credit accounts are debited using the following conventions:

(1) First, credits must be retired in following order by weight class group:

(A) First, Class 7-8 tractor group credits to meet Class 7-8 tractor group deficits;

(B) Second, Class 2b-3 group and Class 4-8 group credits to meet Class 2b-3 group and Class 4-8 group deficits;

(C) Last, Class 7-8 tractor group credits to meet Class 2b-3 group and Class 4-8 group deficits.

(2) Second, credits must be retired by order of model year expiration, starting with the earliest expiring credit until deficits are met; and

(3) Third, NZEV credits must be retired first up to the cap described in 1963.3(d), then ZEV credits must be retired until deficits are met.

(d) *NZEV Credit Limit.* A manufacturer may use Class 2b and above NZEV credits to satisfy, at maximum, 50 percent of the annual aggregate deficits for the Class 2b-3 group and the Class 4-8 group, and may use Class 7-8 tractor NZEV credits to satisfy, at maximum, 50 percent of the annual deficit for the Class 7-8 tractor group.

(e) *Tractor Deficits Must Be Met With Tractor Credits.* Annual deficits accrued in the Class 7-8 tractor group can only be met with Class 7-8 tractor credits.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.4. Advanced Clean Trucks Reporting and Recordkeeping

(a) *Sales Reporting.* Beginning with the 2021 model year, a manufacturer must report by March 31 of each year the following information to CARB for each type of vehicle certified to California standards and sold in California for each model year:

(1) Vehicle Identification Number (VIN) for each vehicle; and

(2) VIN codes for Class 2b-3 vehicles that identify whether the vehicle was originally sold as a pickup; and

(3) Vehicle weight class; and

(4) Whether the vehicle type is a tractor, yard truck, is a pickup, or is another vehicle type; and

(5) Fuel and drivetrain type; and

(6) The volume certified to California standards and sold in California for the vehicle type; and

(7) If the vehicle is a NZEV, the tested all-electric range of the vehicle.

(b) *Credit Transfer Reporting.* A manufacturer that transfers to or receives credits from another manufacturer must submit to the Executive Officer an annual report of all credit trades, transfers, and transactions. CARB will not recognize any credit transfers until the report is received.

(1) Transfer Reporting Deadline. Reports must be submitted no later than March 31 of each year to comply with the current model year requirement or to make up shortfall from the prior year.

(2) Required Credit Transfer Information. Manufacturers that transfer or receive credits must submit a letter or document signed by authorized agents of both parties to the transaction summarizing the transfer, which must include the following:

(A) Corporate name of credit transferor.

(B) Corporate name of credit transferee.

(C) Number of ZEV credits transferred for each model year, rounded to the nearest tenth per 1963.2(c).

(D) Number of NZEV credits transferred for each model year, rounded to the nearest tenth per 1963.2(c).

(E) Indicate whether the credits are Class 7-8 Tractor credits, or other credits.

(c) *Class 2b-3 Credit Declaration.* A manufacturer that generates ZEV or NZEV credits from the Class 2b-3 group must submit by March 31 of each year a declaration to the Executive Officer which includes:

(1) The number of vehicles certified to California standards and sold in California to generate credits per section 1963.2; and

(2) The number of vehicles certified to California standards and sold in California to generate credits per 13 CCR section 1962.2.

(d) *Retention of Records.* Records of reporting information required in section 1963.4(a-c) must be kept by manufacturers for CARB to audit for a period of eight (8) years from the model year vehicles were produced.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.5. Advanced Clean Trucks Enforcement

(a) *Enforcement of Requirements.* A manufacturer is subject to the following:

(1) *Audit of Records.* A manufacturer must make records of vehicle sales into California available to CARB at its request for audit to verify the accuracy of information reported to CARB. In the event the records are not made available within 30 days of the request, CARB may assess penalties for noncompliance. Submitting false information to CARB is a violation of this regulation and violators will be subject to penalty.

(2) *Authority to Suspend, Revoke, or Modify.* If the Executive Officer finds that any ZEV or NZEV credit was obtained based on false information, the credit will be deemed invalid.

(3) *Public Disclosure.* Records in the Board's possession for the manufacturers subject to this regulation shall be subject to disclosure as public records as follows:

(A) Each manufacturer's annual vehicle production and sales in California data and the corresponding credits per vehicle earned for the 2021 and subsequent model years; and

(B) Each manufacturer's annual credit balances for 2021 and subsequent years for ZEVs and NZEVs; and

(C) Credits earned under section 1963.2, including credits acquired from, or transferred to another party, and the parties themselves.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 2012. Advanced Clean Trucks, Large Entity Reporting Requirement

(a) *Purpose.* The purpose of this article is to collect information to assess suitability of zero emission vehicles in multiple use cases and to inform future strategies on how to accelerate the zero-emission vehicle market in California. This article supports future measures to reduce emissions of oxides of nitrogen (NOx), fine particulate matter (PM), other criteria pollutants, toxic air contaminants, and greenhouse gases (GHG) from vehicles.

(b) *Scope and Applicability.* Except as provided in subsection (c), this regulation shall apply to each of the following:

(1) Any entity that operated a facility in California in 2019 calendar year and had gross annual revenues greater than $50 million in the United States for the 2019 tax year, including all subsidiaries, subdivisions, or branches. This does not include entities that own facilities in California but do not operate them;

(2) Any fleet owner with more than 100 vehicles with a GVWR greater than 8,500 lbs. and operated a facility in California in the 2019 calendar year;

(3) Any broker or entity that dispatched more than 100 vehicles with a GVWR greater than 8,500 lbs. into or throughout California in the 2019 calendar year;

(4) Any California government agency including all state and local municipalities; and

(5) Any Federal government agency operating in California.

(c) *Exemptions.* The following entities are exempt from this regulation:

(1) K-12 schools and school districts and other entities whose fleet is comprised primarily of school buses, which for the purposes of this regulation, means the registered owner, lessee, licensee, school district superintendent, or bailee of any school bus, who operates or directs the operation of any such bus on either a for-hire or not-for-hire basis;

(2) Transit agencies that are subject to the Innovative Clean Transit regulation, section 2023; and

(3) Transportation network companies who solely connect drivers using their personal vehicles with passengers.

(d) *Definitions.* The following definitions shall apply for sections 2012 through 2012.3:

(1) "Assigned" means primarily where decisions about vehicle maintenance, repair and operation are made if a vehicle is not domiciled at any one facility.

(2) "Broker" means an entity or person who, for compensation, arranges or offers to arrange the transportation of property by an authorized motor carrier. A motor carrier, or person who is an employee or bona fide agent of a carrier, is not a broker when it arranges or offers to arrange the transportation of shipments which it is authorized to transport and which it has accepted and legally bound itself to transport.

(3) "Corporate parent" means a business that possesses the majority of shares in another business, which gives them control of their operational procedures.

(4) "Facility" means any property with one or more unique physical addresses.

(5) "Facility category" means a classification of different facility types based on a facility's primary purpose. Facility categories are defined as the following:

(A) "Administrative/Office Building" means a building or structure used primarily for day-to-day activities that are related to administrative tasks such as financial planning, record keeping & billing, personnel, physical distribution and logistics, within a business.

(B) "Distribution Center/Warehouse" means a location used primarily for the storage of goods which are intended for subsequent shipment.

(C) "Hotel/Motel/Resort" means a commercial establishment offering lodging to travelers and sometimes to permanent residents.

(D) "Manufacturer/Factory/Plant" means a location with equipment for assembling parts, producing finished products, intermediate parts, or energy products.

(E) "Medical/Hospital/Care" means an institution engaged in providing, by or under the supervision of physicians, inpatient diagnostic and therapeutic services or rehabilitation services.

(F) "Multi-Building Campus/Base" means a property typically operated by a single entity with several buildings, often serving multiple purposes.

(G) "Restaurant" means a business establishment where meals or refreshments may be purchased.

(H) "Service Center" means a facility that supports a business operation that generates revenue by providing a specific service or product, or a group of services or products to a customer.

(I) "Store" means an establishment that sells goods or a variety of goods and services to the general public.

(J) "Truck/Equipment Yard" means an establishment that primarily stores or dispatches trucks and equipment such as a garage or parking lot.

(K) "Any Other Facility Type" means any facility that is not included in 2012(d)(5)(A-J).

(6) "Fleet" means one or more on-road vehicles that are owned by a person, business, or agency as defined in California Vehicle Code section 460. A fleet may fall into one of the following sub classifications:

(A) "Federal fleet" means a fleet of vehicles owned by a department, agency, or instrumentality of the federal government of the United States of America and its departments, divisions, public corporations, or public agencies including the United States Postal Service. With respect to the Department of Defense and its service branches, federal fleets may be managed regionally, locally, or a combination of regional and local management. There may be multiple federal fleets within a military service or an installation; or

(B) "Rental or leased fleet" means a fleet of vehicles owned by a person (rental or leasing entity) for the purpose of renting or leasing, as defined in California Uniform Commercial Code section 10103(a)(10), such vehicles to other persons (renters or lessees) for use or operation.

(7) "Fleet owner" means, except as modified below in paragraphs (A) and (B), either the person registered as the owner or lessee of a vehicle by the California Department of Motor Vehicles (DMV), or its equivalent in another state, province, or country; as evidenced on the vehicle registration document carried in the vehicle.

(A) For vehicles that are owned by the federal government and not registered in any state or local jurisdiction, the owner shall be the department, agency, branch, or other entity of the United States, including the United States Postal Service, to which the vehicles in the fleet are assigned or which have responsibility for maintenance of the vehicles.

(B) For a vehicle that is rented or leased from a business that is regularly engaged in the trade or business of leasing or renting motor vehicles without drivers, the owner shall be the rental or leasing entity if the rental or lease agreement for the vehicle is for a period of less than one year, otherwise the owner shall be the renter or lessee.

(8) "Government agency" means any federal, state, or local governmental agency, including, water districts, or any other public entity with taxing authority.

(9) "Gross annual revenue" means the total revenue, receipts, and sales reported to the Internal Revenue Service for a consecutive 12 month period.

(10) "Gross vehicle weight rating" or GVWR has the same meaning as defined in California Vehicle Code, section 350, subdivision (a).

(11) "Motor carrier" is the same as defined in California Vehicle Code section 408.

(12) "Municipality" means a city, county, city and county, special district, or a public agency of the State of California, and any department, division, public corporation, or public agency of this State.

(13) "Responsible official" means one of the following:

(A) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or their delegate, designee, or any other person who performs similar policy or decision-making functions for the corporation;

(B) For a partnership or sole proprietorship: A general partner or the proprietor, respectively;

(C) For a municipality, state, federal, or other governmental agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the U.S. EPA). For the purposes of the Department of Defense Military Services, a principal executive officer includes a commanding officer of an installation, base, or tenant organization.

(14) "Subsidiary" means a company controlled by another company.

(15) "Subcontractor" means an entity who enters into an agreement to perform work on the behalf of a contractor to fulfill the terms of the agreement the contractor has with its customers.

(16) "Subhauler" means a for-hire motor carrier who enters into an agreement to provide transportation services on the behalf of another for-hire motor carrier to serve its customers.

(17) "Transportation Network Company" means any entity or person that provides prearranged transportation services for compensation using an online-enabled application or platform (such as smart phone apps) to connect drivers using their personal vehicles with passengers.

(18) "Vehicle Body Type" means commonly used vehicle body descriptions to be used in responding to questions about the fleet of vehicles including the following: beverage truck, boom/bucket, box reefer, box dry van, bus-school, bus-shuttle, bus-other, car/SUV, car carrier, concrete mixer, concrete pump, crane, drill rig, dump, flatbed or stake bed, garbage packer, garbage roll-off, other, pickup bed, service body, sweeper, tank, tractor day cab, tractor sleeper cab, tow, vacuum, water, van-cargo, van-step, van-passenger, yard goat.

(19) "Vehicles Awaiting Sale" means vehicles in the possession of dealers, financing companies, or other entities that do not intend to operate the vehicle in California or offer the vehicle for hire for operation in California, and that are operated only to demonstrate functionality to potential buyers or to move short distances while awaiting sale for purposes such as maintenance or storage

(20) "Weight class bin" means a list of vehicles categorized by GVWR. The weight class bins are one of the following:

(A) "Light-duty" means a vehicle with a GVWR of 8,500 lbs. or less. Also referred to as Class 1-2a. This includes passenger cars, sport utility vehicles, minivans, and light pickup trucks.

(B) "Class 2b-3" means a vehicle with a GVWR from 8,501 lb. to 14,000 lb. The types of vehicle in this category generally includes full-size pickup trucks, smaller utility trucks, cargo vans, and passenger vans.

(C) "Class 4-6" means a vehicle with a GVWR from 14,001 lb. to 26,000 lb.

(D) "Class 7-8" means a vehicle with a GVWR greater than 26,000 lbs.

(e) General Requirements.

(1) *Reporting.* All regulated entities must submit information about each subsidiary separately to the Executive Officer by reporting general entity information as specified in section 2012.1, facility information as specified in section 2012.2, and vehicle usage information as specified in section 2012.3, if applicable. Complete information must be reported by April 1, 2021, for their facility operation in 2020 and for any fleet of vehicles as it was comprised as of January 1, 2021, to meet the compliance requirements. Entities may report separately by division, or branch if preferred. To the extent reports submitted to CARB contain confidential data, entities may choose to designate that information as confidential per title 17, sections 91000 to 91022.

(2) *Method of Reporting.* Reports submitted to comply with sections 2012.1, 2012.2, and 2012.3 must be submitted online through CARB's Advanced Clean Trucks webpage.

(3) *Record Retention.* The fleet owner or responsible person shall maintain the records of their information required by sections 2012.1, 2012.2, and 2012.3 until December 31, 2024, for the overall fleet. In addition, the fleet owner or responsible person must maintain all individual fleet, vehicle, contract, and facility records used to compile responses to section 2012.1, 2012.2, and 2012.3 and must include the following:

(A) Mileage records and dates from records such as maintenance logs, vehicle logs, or odometer readings;

(B) Vehicle registration date and jurisdiction for each vehicle in the California fleet; and

(C) Contracts with subcontractors, contracts with subhaulers, and contracts for ground transportation needs.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 43013, 43018, 43101 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 39000, 39003, 43000, 43000.5, 43013, 43018, 43101 Health and Safety Code.

Section 2012.1. General Entity Information Reporting.

All entities subject to the regulation must report the following general information about their entity and business practices:

(a) General Information.

(1) Entity name;

(2) Mailing address including street name, city, and ZIP code;

(3) Designated contact person name;

(4) Designated contact person's email address;

(5) Designated contact person's phone number;

(6) Corporate parent name or governing body (if applicable);

(7) For government entities, identify the jurisdiction (federal, state, or local);

(8) If the regulated entity has reported vehicles or company information in CARB's Truck Regulation Upload, Compliance, and Reporting System (TRUCRS), report all account identification numbers, otherwise known as "TRUCRS ID";

(9) Taxpayer identification number (if applicable);

(10) Primary six digit North American Industry Classification System (NAICS) code (if applicable);

(11) For non-government agencies, identify the total annual revenue for the entity in the United States for 2020. Respond by using the following bins in million dollars (<$10, $10-$49, $50-$99, $100-$499, $500-$999, >$1,000);

(12) The following operating authority numbers, if applicable: Motor carrier identification number, United States Department of Transportation number, California Carrier Identification number, California Public Utilities Commission transportation charter permit number, International Registration Plan number;

(13) Identify the number of subcontractors with whom you had a one year or longer contract to perform work in California in 2020 to serve your customers. Respond using the following bins (Does not apply, 1-10 subcontractors, 11-20 subcontractors, 20-50 subcontractors, or more than 50 subcontractors).

(14) If your entity is a motor carrier and contracts with subhaulers to serve your customers, identify the following for the year 2020:

(A) The number of subhaulers you contracted with in California. Respond using the following bins (Does not apply, 1-10 subhaulers, 11-20 subhaulers, 20-50 subhaulers, or more than 50 subhaulers);

(B) Estimated number of vehicles operated by your subhaulers on your behalf in California. Respond using the following bins (Does not apply, 1-10, 11-20, 20-99, 100-500, >500); and

(C) Estimate the number of vehicles operated by subhaulers that operated under your authority in California. Respond using the following bins (Does not apply, 1-10, 11-20, 20-99, 100-500, >500).

(15) Identify whether your entity has a written sustainability plan to reduce your carbon footprint. Respond with (Yes, No, Does not apply);

(16) Identify whether your entity's written sustainability plan includes transportation emissions reduction goals. Respond with (Yes, No, Does not apply);

(17) Identify the total number of vehicles your entity owns and operates in California that are domiciled or assigned to a facility you own or operate in California; and

(18) Identify the number of vehicles your entity owns and operates in California and are not domiciled nor assigned to any California facility.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 43013, 43018, 43101 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 39000, 39003, 43000, 43000.5, 43013, 43018, 43101 Health and Safety Code.

Section 2012.2. Facility Category Reporting.

Entities that operate one or more physical addresses in California must report grouped facility information described in section 2012.2(a) and detailed information for a single representative facility for each facility category operated as described in section 2012.2(b).

(a) *Grouped Facility Information.* Report grouped facility information for any of the facility categories operated. Although a facility may have multiple uses, each physical address should be counted only once and categorized into the facility category that best fits the facility's primary business. Group any facilities that do not fit in any of the facility categories provided and account for them in the "Any Other Facility Type" category as specified in 2012(d)(5). The following information must be reported for all of the facility categories operated.

(1) *General facility characteristics.* For each facility group, identify how many facilities that you operate in California that have the following characteristics:

(A) Are located in California;

(B) Have dock-height loading bays;

(C) Have cold storage rooms;

(D) Have electric vehicle supply equipment or electric vehicle charging stations available for public use;

(E) Have electric vehicle supply equipment or electric vehicle charging stations available for employee or private use;

(F) Are on properties shared with other tenants;

(G) Are owned by your entity or are owned by the corporate parent on your behalf;

(H) Have shuttle van or bus service provided by your entity or corporate parent on your behalf to or from the facility;

(I) Have light-duty vehicles assigned to or domiciled at the facility; and

(J) Have trucks, vans, or buses, excluding light-duty vehicles, assigned to or domiciled at the facility.

(2) *Ground transportation needs.* Describe how the following types of truck transportation shipping needs specified in sections 2012.2(a)(2)(A) through 2012.2(a)(2)(H) are typically met for each facility type category that applies. Respond by selecting one or more of the following answers (With vehicles owned by the entity, through contracts of one year or longer, both with own vehicles and through one year or longer contracts, or does not apply).

(A) Items shipped from facility to locations outside of California;

(B) Items shipped into the facility from locations outside of California;

(C) Items shipped from facility to California port or rail locations;

(D) Items shipped into the facility from California port or rail locations;

(E) Items shipped into the facility from California warehouse or distribution center locations owned or leased by the entity;

(F) Items shipped into the facility from California non-warehouse locations owned or leased by the entity;

(G) Items shipped from the facility to residential locations;

(H) Items shipped from the facility to non-residential locations;

(3) *Contracting practices.* For all of the facilities in each facility category, describe which of the services listed in 2012.2(a)(3)(A) through 2012.2(a)(3)(I) your company receives that are managed with contracts of one year or more. Select one of the following responses (Managed at the facility, managed centrally and not at the facility, both managed at the facility and centrally managed, or does not apply).

(A) Linen or uniform delivery to or from the facility;

(B) Parcel delivery to or from the facility;

(C) Maintenance or repair of the facility;

(D) Passenger shuttle service to or from the facility;

(E) Armored car services to or from the facility;

(F) Non-refrigerated food items delivered to the facility;

(G) Refrigerated food items delivered to the facility;

(H) Non-food items delivered to the facility; and

(I) Waste collection and removal from facility.

(4) *Grouped Facility Addresses.* List the physical address associated with each facility identified in 2012.2(a), including the street number, street name, city, ZIP code, and the facility category.

(b) *Representative Facility Questionnaire.* All regulated entities that operate facilities in California must submit the following information about one representative facility within each facility category group listed in section 2012(d)(4) that applies to your entity. A representative facility is one that is common or otherwise typical within a category. For facilities identified in the "Any Other Facility Type" category, use best judgement to pick one representative facility that is a common part of your operation. Do not include facilities that are owned by your entity but are not operated by your entity.

(1) *General representative facility questions.*

(A) Contact person name;

(B) Contact person email address;

(C) Contact person telephone number;

(D) Location of the representative facility including street name, city, and ZIP code;

(E) Total approximate building square footage of the facility. Respond in units of square feet rounded to the nearest two significant figures;

(F) Number of dock-height loading bays at this facility;

(G) Square footage of cold storage rooms at this facility. Respond in units of square feet rounded to the nearest two significant figures; and

(H) A short description of the representative facility and its primary function or purpose.

(2) *Vehicle Trips*. Estimate the number of vehicle trips excluding light-duty vehicles to the representative facility in a typical week in 2020. Respond by using the following bins (Does not apply, 1-10, 11-20, 20-99, 100-500, >500) for each of the delivery types specified in section 2012.2(b)(2)(A) to 2012.2(b)(2)(J). The responses should be based on requirements specified in pick-up and delivery contracts, or by sampling the count of actual deliveries to or from the representative facility.

(A) Linen/uniform cleaning service vans or trucks;

(B) Parcel delivery vans or trucks;

(C) Armored cash transport trucks;

(D) Food or beverage delivery (non-refrigerated) - van or straight truck;

(E) Food or beverage delivery (refrigerated) – van or straight truck;

(F) Non-food delivery - van or straight truck;

(G) Food or beverage delivery (non-refrigerated) - tractor trailer;

(H) Food or beverage delivery (refrigerated) - tractor trailer;

(I) Non-food delivery - tractor trailer; and

(J) All other truck or van deliveries or visits.

(3) *Supplier Counts:* Identify how many different suppliers shipped their items to the representative facility in 2020. Respond by using the following bins (Does not apply, 1-10 suppliers, 11-20 suppliers, or more than 20 suppliers) for the following delivery types:

(A) Food or beverage delivery;

(B) Linen/uniform cleaning service;

(C) Goods delivery excluding food or beverage; and

(D) All other supplies, tools, equipment (non-goods).

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 43013, 43018, 43101 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 39000, 39003, 43000, 43000.5, 43013, 43018, 43101 Health and Safety Code.

Section 2012.3. Vehicle Usage by Facility Reporting.

Regulated entities that own or operate any vehicles with a GVWR greater than 8,500 lbs. must report general information about the facility where all on-road vehicles are domiciled or assigned as specified in section 2012.3(a), and information about vehicle operating characteristics for vehicles domiciled or assigned to each facility in California as specified in section 2012.3(b). Regulated entities may exclude military tactical support vehicles as described in title 13, CCR, section 1905 and vehicles awaiting sale. Vehicles that accrue a majority of their annual miles in California, but are not assigned to a particular location in California, must be reported as part of the headquarters or another location where the vehicles' operation is managed.

(a) All regulated entities must report the following information for each facility to which on-road vehicles are domiciled or assigned:

(1) Facility address including street name, city, and ZIP code;

(2) Facility type category as listed in Section 2012(d)(5);

(3) Contact person name;

(4) Contact person email address;

(5) Identify whether the facility is owned or leased by the entity;

(6) Identify what type of fueling infrastructure is installed at the facility, by selecting all of the fuel types dispensed at the facility as listed below in section 2012.3(a)(6)(A) to 2012.3(a)(6)(G).

(A) Diesel;

(B) Gasoline;

(C) Natural gas;

(D) Electricity;

(E) Hydrogen;

(F) Other fuel; or

(G) Not applicable.

(7) Identify what refueling infrastructure was initially installed less than 10 years ago by the selecting the fuel type dispensed as listed in section 2012.3(a)(6)(A) to 2012.3(a)(6)(G).

(8) Identify what types of trailers you pull if you have tractors assigned or domiciled at this facility by selecting the following:

(A) Van-dry;

(B) Van-reefer;

(C) Tanker;

(D) Flatbed;

(E) Shipping container;

(F) Low bed;

(G) Curtain side; or

(H) Other.

(b) For each facility identified, report information specified in section 2012.3(b)(1) to 2012.3(b)(3) for all vehicles assigned to or domiciled at the facility in 2020 and remain in the fleet as of January 1, 2021. Responses may be grouped by vehicle body type as listed in section 2012(d)(18), weight class bin specified in section 2012(d)(20), and fuel type listed in section 2012.3(a)(6)(A) to 2012.3(a)(6)(G). For fleets with seasonal workload fluctuations, use a time period in the busy season when answering questions about typical daily operation. Responses for items in section 2012.3(b)(2) through 2012.2(b)(5) for a vehicle group at one location may be repeated for the same vehicle group at another facility if the

respondent determines the vehicle operation is substantially similar at both locations.

(1) How many vehicles in each vehicle group

(2) The percent of the vehicles in each vehicle group have the operations or characteristics listed in sections 2012.3(b)(A) through 2012.3(b)(Q). Respond by rounding to the nearest 10 percent.

(A) Operate less than 100 miles per day;

(B) Operate 100 to 150 miles per day;

(C) Operate 151 to 200 miles per day;

(D) Operate 201 to 300 miles per day;

(E) Operate more than 300 miles per day;

(F) Has a predictable usage pattern;

(G) Fuels on-site as the primary means of fueling;

(H) Returns to this facility daily;

(I) Has onboard GPS or mileage tracking;

(J) Stays within 50 miles of this facility on a given day;

(K) Tows a trailer more than 100 miles a day;

(L) Commonly operates at their weight limit;

(M) Is not registered in California;

(N) Is regularly parked at the facility more than 8 hours each day;

(O) The highest percent of the fleet that was dispatched at the same time on the behalf of a local, state or federal government to support an emergency operation;

(P) Is equipped with all-wheel drive; and

(Q) Are not being operated or are used as backup vehicles.

(3) The average annual mileage for a typical vehicle in this vehicle group. Respond by using one of the following that is closest to the average miles

(5,000 or less, 10,000, 20,000, 30,000, 40,000, 50,000, 60,000, 70,000, 80,000, 90,000, 100,000, or more than 100,000).

(4) For this vehicle group, identify how long you keep vehicles after acquisition. Respond in number of years by using one of the following bins: (Less than 4, 5 to 10, 11-15, 16-20, or more than 20).

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 43013, 43018, 43101 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 39000, 39003, 43000, 43000.5, 43013, 43018, 43101 Health and Safety Code.

Water Quality Fees Stakeholder Meeting

Monday, March 2, 2020 at 9:00 – 11:00 am

Sierra Hearing Room – Second Floor
CalEPA Headquarters
1001 I Street, Sacramento, CA 95814

Live Webcast Here

Fee Branch Email

AGENDA

1. Welcome and Introductions
2. Waste Discharge Permit Fund (WDPF) Budget Cost Drivers (Attachment 1)
    a. Business Licenses: Stormwater Discharge Compliance (SB 205)
    b. Continuation of Cannabis Program
    c. Freshwater and Estuarine Harmful Algal Bloom Program (AB 834)
3. FY 2018-19 Performance Report Presentation by the Office of Information Management and Analysis
4. Open Discussion
5. Next Steps

WDPF Budget Cost Drivers
FY 2020-21
($000)

A	B	C	D	E (B+C+D)	F	G (E-F)	H (F+G)	I	J	K (G+J)	L (F+K)	M	N	O
WDPF Program	**FY 19-20 Fee Budget[1]**	**BCP Changes**	**Staff Cost & Program Adjustments[2]**	**FY 20-21 Allocation Budget**	**FY 20-21 Revenue Forecast**	**Forecasted Revenue Increase / (Decrease)**	**FY 20-21 Total Revenue**	**Average Program Percent Change**	**Revenue Adjust for 4% Fund Reserve[3]**	**Adjusted Revenue Increase / (Decrease)[4]**	**FY 19-20 Adjusted Total Revenue[5]**	**Adjusted Average Program Percent Change[6]**	**FY 21-22 (Budget Year +1)**	**FY 22-23 (Budget Year +2)**
WDR	$34,997	$357	$2,323	$37,677	$33,935	$3,742	$37,677	11.0%	$0	$3,742	$37,677	11.0%	4.0%	4.0%
Land Disposal	$13,841	$134	$115	$14,089	$14,230	($141)	$14,089	-1.0%	$0	($141)	$14,089	-1.0%	4.0%	4.0%
WQC (401 Cert)	$15,672	$152	$237	$16,062	$14,597	$1,465	$16,062	10.0%	$0	$1,465	$16,062	10.0%	4.0%	4.0%
Storm Water	$33,265	$504	$1,273	$35,042	$34,431	$611	$35,042	1.8%	$0	$611	$35,042	1.8%	4.0%	4.0%
NPDES	$34,331	$346	$1,836	$36,513	$32,796	$3,716	$36,513	11.3%	$0	$3,716	$36,513	11.3%	4.0%	4.0%
CAF	$5,648	$56	$251	$5,955	$5,496	$459	$5,955	8.4%	$0	$459	$5,955	8.4%	4.0%	4.0%
Ag Lands (ILRP)	$7,998	$90	$517	$8,605	$7,921	$684	$8,605	8.6%	$0	$684	$8,605	8.6%	4.0%	4.0%
SUBTOTAL:	$145,752	$1,639	$6,552	$153,943	$143,406	$10,537	$153,943	-	$0	$10,537	$153,943	-	-	-
Cannabis	$5,502	$10,536	$605	$16,642	$4,609	$12,033	$16,642	261.0%	$0	$12,033	$16,642	261.0%	4.0%	4.0%
TOTAL:	**$151,254**	**$12,175**	**$7,156**	**$170,585**	**$148,016**	**$22,570**	**$170,585**	-	**$0**	**$22,570**	**$170,585**	-	-	-

[1] Includes redirected expenditures for foundational programs like Basin Planning, TMDL, monitoring and enforcement.
[2] Includes resource reallocation for employee compensation, retirement, health care costs, space optimization and pro rata.
[3] Adjustments to revenue levels while maintaining a prudent reserve.
[4] Recommended revenue level adjustments.
[5] Net revenue levels after adjustments.
[6] Net percentage change impact after recommended adjustments.

BCP Changes	**Amount**	**Description**
All Fee Programs	$1,500	20-21 BCP - Freshwater and Estuarine Harmful Algal Bloom Program (AB 834)
Storm Water	$175	20-21 BCP - Business Licenses: Stormwater Discharge Compliance (SB 205)
Cannabis	$10,500	20-21 BCP - Continuation of the Cannabis Program
	$12,175	

UR.3.6. Wet Commodities. – Wet commodities not in watertight containers shall be weighed only on a scale having a pan or platform that will drain properly.
(Amended 1988)

UR.3.7. Minimum Load on a Vehicle Scale. **NOT ADOPTED – CCR § 4001. Exceptions.]**

CCR § 4002.2. Scales (2.20.) (a) Minimum Load on a Vehicle Scale.

Except for weighments of ferrous metals, cardboard, paper, rags or plastic, and the weighing of vehicles for registration purposes, a vehicle scale shall not be used for weighing net loads less than the value of 20 scale divisions.

CCR § 4002.2. Scales (2.20.) (b) Class III, Class III L and Unmarked Devices Used For Recycling.

Except for weighments of ferrous metals, card-board, paper, rags, or plastic, Class III, Class III L and unmarked devices used in recycling shall not be used for weighing net loads less than the value of 20 scale divisions.

UR.3.8. Minimum Load for Weighing Livestock. – A scale with scale divisions greater than 2 kg (5 lb) shall not be used for weighing net loads smaller than 500 d.
(Amended 1989)

UR.3.9. Use of Manual Weight Entries. – Manual gross or net weight entries are permitted for use in the following applications only when:

(a) a point-of-sale system interfaced with a scale is giving credit for a weighed item;

(b) an item is pre-weighed on a legal for trade scale and marked with the correct net weight;

(c) a device or system is generating labels for standard weight packages;

(d) postal scales or weight classifiers are generating manifests for packages to be picked up at a later time; or

(e) livestock and vehicle scale systems generate weight tickets to correct erroneous tickets.

(Added 1992) (Amended 2000 and 2004)

UR.3.10. Dynamic Monorail Weighing Systems. – When the value of d is different from the value of e, the commercial transaction must be based on e.
(Added 1999)

UR.3.11. Minimum Count. – A prescription scale with an operational counting feature shall not be used to count a quantity of less than 30 pieces weighing a minimum of 90 e.
(Added 2003)

Note: The minimum count as defined in this paragraph refers to the use of the device in the filling of prescriptions and is different from the minimum sample piece count as defined in S.1.2.3. and as required to be marked on the scale by S.6.6.
(Note Added 2004)

Jared Blumenfeld
Secretary for
Environmental Protection

Department of Toxic Substances Control

Meredith Williams, Ph.D.
Acting Director
1001 "I" Street
P.O. Box 806
Sacramento, California 95812-0806

Gavin Newsom
Governor

July 10, 2019 **CERTIFIED MAIL: 7011 0470 0002 8755 8393**

Ms. Cheryl Nelson
LND 1-1
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105

Dear Ms. Nelson:

The California Department of Toxic Substances Control (DTSC) is submitting this revision authorization application for California's Hazardous Waste Management Program, specifically the Universal Waste Program. This revision application pertains to Universal Waste Rule (Checklists 142 A, B, D and E, Checklist 181, and Checklist 209). Due to the numerous revisions to the Federal Universal Waste Rule, California prepared a side-by-side regulatory language comparison for ease of program evaluation in lieu of the checklists, which is included in this authorization application.

An Attorney General Statement verifying program equivalency is included. Additionally, the Program Description is a complete, stand-alone document that completely updates the Program Description previously submitted in 2010 as part of the RCRA hazardous waste management program authorization. Finally, the 2009 Memorandum of Agreement is included, which sets forth policies, responsibilities, and procedures for the administration and enforcement of the State of California's RCRA hazardous waste program.

If you have any questions, please contact Mr. Ricardo Rivera at (916) 327-4061 or Ricardo.Rivera@dtsc.ca.gov.

Sincerely,

Rizgar Ghazi, P.E.
Acting Deputy Director
Hazardous Waste Management Program

Enclosure

XAVIER BECERRA
Attorney General

State of California
DEPARTMENT OF JUSTICE

1515 CLAY STREET, 20TH FLOOR
OAKLAND, CA 94612

Telephone: (510) 879-1973
Facsimile: (510) 622-2270
E-Mail: Shannon.Clark@doj.ca.gov

CALIFORNIA ATTORNEY GENERAL STATEMENT FOR FINAL AUTHORIZATION FOR CHANGES TO THE FEDERAL HAZARDOUS WASTE PROGRAM

I hereby certify, on behalf of the Attorney General of the State of California and in accordance with Section 3006(b) of the Resource Conservation and Recovery Act, as amended by the Hazardous and Solid Waste Amendments of 1984 (42 USC 6901 *et seq.*), and 40 CFR 271, that in my opinion the laws of the State of California provide adequate authority to carry out the revised universal waste program set forth in the Program Description submitted by the Department of Toxic Substances Control. The specific authorities provided are contained in statutes or regulations lawfully adopted at the time this Statement is signed and which are in effect now. This certification supplements the prior certifications made by, or on behalf of, the California Attorney General of December 20, 1991, January 31, 2000, and November 13, 2007.

The provisions for which the State of California is seeking authorization are described below. Additionally, the following attachments are included with this Statement: Subparts A-G Spreadsheets, Aerosol Can Justification, Mercury Containing Equipment Justification, Electronic Devices Justification, and CRT/CRT Glass Justification. These attachments provide detailed comparisons of federal and state universal waste regulations. The official state universal waste regulations may be found at California Code of Regulations, Title 22, Chapter 23.

This Statement is organized by the subparts of the federal universal waste regulations.

I. SUBPART A – General

Federal Authority:
40 C.F.R. § 273.1, as amended July 6, 1999 (64 FR 36488) and Aug. 5, 2005 (70 FR 45520)
40 C.F.R. § 273.2, as amended July 6, 1999 (64 FR 36488)
40 C.F.R. § 273.3, as amended July 6, 1999 (64 FR 36488)
40 C.F.R. § 273.4, as amended July 6, 1999 (64 FR 36488) and Aug. 5, 2005 (70 FR 45520)
40 C.F.R. § 273.5, as amended July 6, 1999 (64 FR 36488)
40 C.F.R. § 273.8, as amended July 6, 1999 (64 FR 36488) and Nov. 28, 2016 (81 FR 85828)
40 C.F.R. § 273.9, as amended Dec. 24, 1998 (63 FR 71230), July 6, 1999 (64 FR 36488-36489), Aug. 5, 2005 (70 FR 45521), and July 14, 2006 (71 FR 40280)

Additional Federal Authority Included in the Subpart A Spreadsheet:[1]
40 C.F.R. § 260.10, enacted May 19, 1980 (45 FR 33073), last amended Nov. 30, 2018 (83 FR 61562)
40 C.F.R. § 261.1, enacted May 19, 1980 (45 FR 33119), last amended Nov. 28, 2016 (81 FR 85806)
40 C.F.R. § 261.4, enacted May 19, 1980 (45 FR 33119), last amended Feb. 22, 2019 (84 FR 5938)
40 C.F.R. § 262.81, enacted April 12, 1996 (61 FR 16290), last amended Nov. 18, 2016 (81 FR 85715)

[1] Several definitions in the state universal waste regulations do not have federal counterparts within the federal universal waste regulations. For the definitions that had federal counterparts outside of the universal waste regulations, we cited to these additional federal regulations in the spreadsheet in order to better explain the state universal waste program. That authority is listed here.

40 C.F.R. § 264.142, enacted April 7, 1982 (47 FR 15047), last amended July 14, 2006 (71 FR 40272)
40 C.F.R. § 270.2, enacted April 1, 1983 (48 FR 14228), last amended July 14, 2006 (71 FR 40279)

Citation of State Authority:
22 C.C.R. § 66273.1, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.2, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.3, enacted Feb. 3, 2003, last amended July 13, 2009
22 C.C.R. § 66273.4, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.5, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.6, enacted Aug. 3, 2001, last amended Oct. 22, 2018
22 C.C.R. § 66273.7, enacted Feb. 4, 2009, last amended Oct. 22, 2018
22 C.C.R. § 66273.8, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.9, enacted Mar. 6, 2000, last amended Oct. 22, 2018
Health & Saf. Code § 25201.16, enacted October 3, 2001

Remarks of the Attorney General:
California's regulations are equivalent to, and in some cases more stringent than, federal regulations. For example, federal universal waste pesticides are regulated as hazardous waste in California, per California Code of Regulations title 22, division 4.5, chapters 10, 12-16, 18, 20 and 22. Additionally, California has added several categories of universal waste not included in the federal program: Electronic Devices, Cathode Ray Tubes (CRTs), CRT Glass, and several sub-categories of Mercury Containing Equipment. For a detailed discussion of these categories, as well as an analysis of the factors outlined in 40 C.F.R. § 273.81, please see the respective documents attached to this statement, as well as the Subpart A spreadsheet. Further, California treats aerosol cans as a universal waste, consistent with U.S. EPA's proposed rule at 83 FR 11654 as well as current federal regulations. For a detailed comparison of the federal rule with California's statute, see the attached Aerosol Can Justification document.

II. SUBPARTS B&C – Standards for Small and Large Quantity Handlers of Universal Waste

Federal Authority, Subpart B:
40 C.F.R. § 273.10, as amended July 6, 1999 (64 FR 36489)
40 C.F.R. § 273.11, as enacted May 11, 1995 (60 FR 25544)
40 C.F.R. § 273.12, as enacted May 11, 1995 (60 FR 25544)
40 C.F.R. § 273.13, as amended July 6, 1999 (64 FR 36489), Aug. 5, 2005 (70 FR 45521), and July 14, 2006 (71 FR 40280)
40 C.F.R. § 273.14, as amended July 6, 1999 (64 FR 36489), Aug. 5, 2005 (70 FR 45521), and July 14, 2006 (71 FR 40280)
40 C.F.R. § 273.15, as enacted May 11, 1995 (60 FR 25546)
40 C.F.R. § 273.16, as enacted May 11, 1995 (60 FR 25546)
40 C.F.R. § 273.17, as enacted May 11, 1995 (60 FR 25546)
40 C.F.R. § 273.18, as enacted May 11, 1995 (60 FR 25546)
40 C.F.R. § 273.19, as enacted May 11, 1995 (60 FR 25546)
40 C.F.R. § 273.20, as amended April 12, 1996 (61 FR 16315) and Nov. 28, 2016 (81 FR 85729)

Federal Authority, Subpart C:
40 C.F.R. § 273.30, as amended July 6, 1999 (64 FR 36489)
40 C.F.R. § 273.31, as enacted May 11, 1995 (60 FR 25547)
40 C.F.R. § 273.32, as amended on July 6, 1999 (64 FR 36489) and Aug. 5, 2005 (70 FR 45522)
40 C.F.R. § 273.33, as amended on July 6, 1999 (64 FR 36489) and Aug. 5, 2005 (70 FR 45522)

40 C.F.R. § 273.34, as amended on July 6, 1999 (64 FR 36489), Aug. 5, 2005 (70 FR 45522), and July 14, 2006 (71 FR 40280)
40 C.F.R. § 273.35, as enacted May 11, 1995 (60 FR 25548)
40 C.F.R. § 273.36, as enacted May 11, 1995 (60 FR 25548)
40 C.F.R. § 273.37, as enacted May 11, 1995 (60 FR 25548)
40 C.F.R. § 273.38, as enacted May 11, 1995 (60 FR 25548)
40 C.F.R. § 273.39, as amended on Nov. 28, 2016 (81 FR 85729)
40 C.F.R. § 273.40, as amended on April 12, 1996 (61 FR 16315) and Nov. 28, 2016 (81 FR 85729)

Citation of State Authority:
22 C.C.R. § 66273.30, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.31, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.32, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.33, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.33.5, enacted Feb. 4, 2009
22 C.C.R. § 66273.34, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.35, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.36, enacted Mar. 6, 2000, last amended May 6, 2010
22 C.C.R. § 66273.37, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66237.38, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66237.39, enacted Mar. 6, 2000, last amended Aug. 20, 2018
22 C.C.R. § 66273.40, enacted Mar. 6, 2000, last amended Aug. 20, 2018
22 C.C.R. § 66273.70, enacted Mar. 6, 2000, last amended Oct. 22, 2018
22 C.C.R. § 66273.71, enacted Feb. 4, 2009
22 C.C.R. § 66273.72, enacted Feb. 4, 2009, last amended Oct. 22, 2018
22 C.C.R. § 66273.73, enacted Feb. 4, 2009, last amended Oct. 22, 2018
22 C.C.R. § 66273.74, enacted Feb. 4, 2009, last amended Oct. 22, 2018
22 C.C.R. § 66273.75, enacted Feb. 4, 2009, last amended Oct. 22, 2018
22 C.C.R. § 66273.76, enacted Feb. 4, 2009
22 C.C.R. § 66273.77, enacted Feb. 4, 2009
22 C.C.R. § 66273.80, enacted Oct. 15, 2012, last amended Oct. 22, 2018
22 C.C.R. § 66273.81, enacted Oct. 15, 2012, last amended Oct. 22, 2018
22 C.C.R. § 66273.82, enacted Oct. 15, 2012, last amended Oct. 22, 2018
22 C.C.R. § 66273.83, enacted Oct. 15, 2012, last amended Oct. 22, 2018
22 C.C.R. § 66273.84, enacted Oct. 15, 2012, last amended Oct. 22, 2018

Remarks of the Attorney General:
Unlike federal regulations, California regulations do not distinguish between small and large quantity handlers of universal waste, and instead regulate all universal waste handlers under the same regulatory standards. These standards are at a minimum equivalent to federal requirements, and are in many instances more stringent. Please see the Subpart B/C spreadsheet for a comparison and analysis of state and federal requirements. Additionally, for a discussion of the categories of universal waste added by California, see the attached Electronic Devices, Mercury-Containing Equipment, Aerosol Can, and CRT/CRT Glass Justification documents.

III. SUBPART D – Standards for Universal Waste Transporters

Federal Authority:
40 C.F.R. § 273.50, as amended July 6, 1999 (64 FR 36490)
40 C.F.R. § 273.51, as enacted May 11, 1995 (60 FR 25549)

40 C.F.R. § 273.52, as enacted May 11, 1995 (60 FR 25549)
40 C.F.R. § 273.53, as enacted May 11, 1995 (60 FR 25549)
40 C.F.R. § 273.54, as enacted May 11, 1995 (60 FR 25549)
40 C.F.R. § 273.55, as enacted May 11, 1995 (60 FR 25550)
40 C.F.R. § 273.56, as amended April 12, 1996 (61 FR 16316) and Nov. 28, 2016 (81 FR 85729)

Citation of State Authority:
22 C.C.R. § 66273.50, enacted March 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.51, enacted March 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.52, enacted March 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.53, enacted March 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.54, enacted March 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.55, enacted March 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.56, enacted March 6, 2000, last amended Aug. 20, 2018

Remarks of the Attorney General:
California regulations are functionally equivalent to, or more stringent than, federal universal waste regulations at subpart D. Please see the Subpart D spreadsheet for a comparison and analysis of state and federal requirements.

IV. SUBPART E – Standards for Destination Facilities

Federal Authority:
40 C.F.R. § 273.60, as amended July, 6, 1999 (64 FR 36490)
40 C.F.R. §273.61, as enacted May 11, 1995 (60 FR 25550)
40 C.F.R. § 273.62, as amended Nov. 28, 2016 (81 FR 85729)

Citation of State Authority:
22 C.C.R. § 66261.6, enacted July 1, 1991, last amended Aug. 20, 2018
22 C.C.R. § 66273.60, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.61, enacted Mar. 6, 2000, last amended Feb. 4, 2009
22 C.C.R. § 66273.62, enacted Mar. 6, 2000, last amended Feb. 4, 2009

Remarks of the Attorney General:
California regulations are functionally equivalent to, or more stringent than, federal universal waste regulations at subpart E. Please see the Subpart E spreadsheet for a comparison and analysis of state and federal requirements.

V. SUBPART F – Import Requirements

Federal Authority:
40 C.F.R. § 273.70, as amended April 12, 1996 (61 FR 16316) and Nov. 28, 2016 (81 FR 85729)

Citation of State Authority:
22 C.C.R. § 66273.41, enacted Mar. 15, 2003, last amended Aug. 20, 2018

Remarks of Attorney General:
California regulations are functionally equivalent to, or more stringent than, federal universal waste regulations at subpart F. Please see the Subpart F spreadsheet for a comparison and analysis of state and federal requirements.

VI. SUBPART G – Petitions to Include Other Wastes Under 40 CFR Part 273

Federal Authority:
40 C.F.R. § 273.80, as enacted May 11, 1995 (60 FR 25550)
40 C.F.R. § 273.81, as amended July 6, 1999 (64 FR 36490) and Nov. 28, 2016 (81 FR 85828)

Citation of State Authority:
22 C.C.R. § 66260.22, as enacted Feb. 3, 2003, last amended Mar. 15, 2003
22 C.C.R. § 66260.23, as enacted Feb. 3, 2003, last amended Feb. 4, 2009

Remarks of Attorney General:
California regulations are functionally equivalent to federal universal waste regulations at subpart G. Please see the Subpart G spreadsheet for a comparison and analysis of state and federal requirements.

Seal of Office

Shannon Clark
Deputy Attorney General

Dated: June 28, 2019

California Department of
Toxic Substances Control

Universal Waste Program Description

July 2019

Contents

Introduction 1
271.6(a) Program Structure, Coverage, and Scope 1
Structure and Coverage 1
Scope 2
271.6(b) Organization and Structure of DTSC 7
271.6(b)(1) General Staff Information 9
271.6(b)(2) & (3) Cost Estimates and Funding for Running the Program 9
271.6(c) State Procedures 12
Permitting Procedures 12
Enforcement Procedures 13
CUPA Procedures 14
Data Tracking Procedures 14
271.6(d) Forms 15
U.S. EPA Forms and online systems used by California 15
California Forms and online systems 15
California Websites 16
271.6(e) DTSC's Compliance and Tracking Program 16
EnviroStor 16
HWTS 17
Enforcement and Hazardous Waste Management 18
ID Number Issuance and Tracking 18
Transporters 18
Fee Collection 18
Reporting 19
Annual Facility Report 19
Biennial Report 19
Data Exchange 19
271.6(f) Manifest Tracking 19
271.6(g) An estimate of the number of the following: 20
271.6(g)(1) Generators 20
271.6(g)(2) Transporters 20
271.6(g)(3) Facilities 20
271.6(h) Annual Quantities 20

Appendix A 21
Appendix B 23

Index of Tables

Table 1. DTSC Position and Expenditure Estimates 10
Table 2. DTSC Funding Sources 10
Table 3. Funding for State CUPA Operation Funds 12
Table 4. Generators in California 20
Table 5. Hazardous Waste Generated in 2017 20

Figure 1. CalEPA Organizational Chart 23
Figure 2. Department of Toxic Substances Control Organizational Chart 23
Figure 3. Hazardous Waste Management Program Organizational Chart 24

Program Description

Introduction

The California Department of Toxic Substance Control (DTSC) is primarily responsible for administering all hazardous waste regulations for the State of California. This document provides a description of the hazardous waste regulatory program administered by DTSC. It further summarizes how the federal regulatory requirements for the universal waste program are implemented by the State of California.

This document replaces the Program Description previously submitted as part of DTSC's application for Resource Conservation and Recovery Act (RCRA) Subtitle C Authorization for Corrective Action Management Units (see 75 FR 60398, September 30, 2010, and docket number EPA-R09-RCRA-2010-0598) in 2011 to reflect the reorganization that occurred within DTSC in 2013. It has been prepared in accordance with the requirements of 40 Code of Federal Regulations section 271.6. For ease of determining applicability, each section contained within this Program Description refers to the specific subsection of 40 Code of Federal Regulations section 271.6.

271.6(a) Program Structure, Coverage, and Scope

Structure and Coverage

DTSC is a department within the California Environmental Protection Agency (CalEPA). DTSC regulates the management of hazardous waste, including enforcement, permitting, and response to hazardous waste emergencies, and conducts and oversees hazardous waste cleanups. CalEPA oversees and coordinates the activities of DTSC, the Department of Resources Recycling and Recovery (commonly referred to as CalRecycle), Department of Pesticide Regulation, Air Resources Board, State Water Resources Control Board, Regional Water Quality Control Boards, and Office of Environmental Health Hazard Assessment. CalEPA also has oversight of the Certified Unified Program Agency (CUPA).

In 1995, the United States Environmental Protection Agency (U.S. EPA) promulgated the federal Universal Waste Rule (60 FR 25492, May 11, 1995), which established the federal universal waste program to regulate certain widely generated waste such as batteries, certain hazardous waste pesticides, mercury-containing thermostats, and lamps. Since that time, the federal program has expanded what may be accepted as a universal waste to include mercury-containing equipment. Even though state adoption of the federal universal waste program is considered optional because it establishes less stringent requirements than full hazardous waste management, U.S. EPA strongly encouraged states to adopt the Universal Waste Rule because it believed the new streamlined approach to management of universal wastes would contribute to more efficient and effective state programs. For example, the program encourages proper recycling and disposal through relaxed management standards of lower risk hazardous wastes, thereby diverting more universal waste from the solid waste stream. Up until California chose to adopt this rule in 2002, all universal wastes were subject to the full

set of management standards for hazardous waste, as outlined in California's Hazardous Waste Control Law (HWCL).[1] HWCL is California's equivalent to federal law and regulations, which include RCRA Subtitle C and parts 260 to 299 of title 40, Code of Federal Regulations, respectively. Currently, U.S. EPA and DTSC both classify the following hazardous wastes as universal wastes: batteries, lamps, and mercury containing-equipment. DTSC has added non-RCRA waste streams to California's universal waste program, including aerosol cans, electronic devices, cathode ray tubes (CRTs), and CRT glass as universal waste.

California is authorized by U.S. EPA for the base hazardous waste program and is currently seeking to obtain authorization for its universal waste regulations in California Code of Regulations, title 22, division 4.5, chapters 10, 11, and 23. Since California adopted this optional rule in 2002, it must seek authorization from U.S. EPA to ensure the program adheres to the intent and scope of the federal Universal Waste Rule. State authorization will allow California to more effectively implement statutes and regulations to meet specific, local needs and promote the protection of human health and the environment. This will also allow California to add new waste streams that it believes meet the criteria of universal waste regardless of whether they are RCRA or non-RCRA hazardous waste. Appendix A lists the general correspondence between the California and federal hazardous waste program regulations.

Scope

Overview of the program area seeking authorization - universal waste program
This authorization package represents California's universal waste program found in California Code of Regulations, title 22, division 4.5, chapters 10, 11, and 23. California is seeking authorization for universal waste regulatory requirements included in Checklists 142 A, B, D, and E (60 FR 25492, May 11, 1995); Checklist 181 (64 FR 36466, July 6, 1999); and Checklist 209 (70 FR 45508, August 5, 2005). California's universal waste program first established alternative management standards for universal waste batteries, thermostats, and lamps in 2002.

DTSC chose not to include pesticides in its universal waste program, even though they are listed as a federal universal waste for two reasons. First, the provisions of Health and Safety Code sections 25207 through 25207.13 establish a system where an agricultural commissioner can hold a waste pesticide collection event. This system does not exempt the waste pesticides from the protective standards of HWCL to the extent that the Universal Waste Rule does, yet it provides a simple disposal solution to farmers and others holding waste pesticides. The program has operated successfully in California for many years and does not require change. The second reason is that the universal waste standards are inappropriate for most canceled and suspended pesticides. Since a criterion of universal wastes is that they are lower risk wastes

[1] For the purposes of this document, Hazardous Waste Control Law refers to Health and Safety Code, division 20, chapter 6.5 and its implementing regulations in California Code of Regulations, title 22, division 4.5.

generated in smaller quantities by most sectors of the population, California determined that pesticides do not meet these criteria.

California chose to include additional non-RCRA hazardous wastes in its universal waste program. In 2002, California Senate Bill (SB) 1158 designated hazardous waste aerosol cans as universal waste. Before SB 1158, non-empty aerosol cans that were discarded were managed as full hazardous waste.

In 2003, California designated electronic devices, including CRTs, as universal wastes. Also, in 2003, DTSC changed the scope of mercury-containing thermostats to a selected list of mercury-containing categories that could be managed as universal wastes.[2]

In 2009, California proposed changes to its universal waste regulations to simplify and consolidate the regulations, improve compliance and clarity, and adopt regulations which paralleled the updates U.S. EPA made to its Universal Waste Rule in 2002 (70 FR 45508, August 5, 2005). Some of the changes included:

- Consolidating the different mercury-containing categories into one category and labeling it mercury-containing equipment (MCE). This was prompted from the modification done in the federal Universal Waste Rule, which amended the term "mercury-containing thermostats" to "mercury-containing equipment" in 2002.[3]
- Placing all the "handler" standards in the front of the chapter in a single article and relocating the "authorized treatment" standards in separate articles in the rear of the chapter.
- Consolidating the authorization of the management and treatment of universal waste electronic devices, including CRT and CRT glass into article 7.

In 2018, updates to the California's universal waste regulations were made through the Imports and Exports of Hazardous Waste Rule (81 FR 85696, November 28, 2016). These updates made California's existing universal waste import-export regulations more consistent with federal regulations and deleted or replaced obsolete regulations. These changes to California's regulations were consistent with the current federal import-export requirements for shipments between members of the Organization for Economic Cooperation and Development; enabled electronic submittal to U.S. EPA of all export and import-related documents (e.g., export notices, export annual reports); and enabled electronic validation of consent in the Automated Export System for export shipments subject to RCRA export consent requirements prior to exit.[4]

---

[2] Initial Statement of Reasons, Mercury Waste Classification and Management, Department Reference Number: R-02-04, California Department of Toxic Substances Control, July 30, 2002.

[3] On August 5, 2005, U.S. EPA issued the Hazardous Waste Management System; Modification of the Hazardous Waste Program; Mercury Containing Equipment (70 Fed. Reg. 45507).

[4] On November 28, 2016, U.S. EPA issued the Hazardous Waste Export-Import Revisions (81 Fed. Reg. 85696).

Differences between California and Federal Regulations

California's universal waste program is generally equivalent to the federal universal waste program. However, there are areas where California's regulatory requirements are either more stringent or broader in scope than the federal program. Furthermore, California has added four universal wastes to its program that are not in the federal program, and consolidated large and small quantity generator requirements into a single set of handler standards.

Areas where the California program is more stringent

A. Household universal waste generators

Both federal and California regulations exempt household universal waste generators from the requirements of part 273 and chapter 23. However, California regulations are more stringent in:

- The definition of "household." California defines a household as a private household and does not include the commercial households exempted under the federal household exemption.

B. Universal Waste Handler Requirements

California's standards for universal waste handlers contain multiple sections where the California regulations are more stringent:

- The federal universal waste program manages pesticides as universal waste. However, California did not adopt pesticides as a universal waste and subjects them to full hazardous waste management requirements.
- Section 66273.4 - California regulations list specific mercury-containing equipment which can be managed as universal waste; however, federal regulations are not as specific and refer to any universal waste mercury-containing equipment. The specific list of mercury-containing equipment includes: thermostats, mercury switches, mercury-containing motor vehicle light switches, non-automotive mercury switches, dental amalgam, pressure or vacuum gauges, mercury-added novelties, mercury counterweights and dampers, thermometers, dilators and weighted tubing, mercury-containing rubber flooring, and gas flow regulators. If a piece of equipment is not listed in California's definition for mercury-containing equipment, it cannot be managed as universal waste and must be managed under full hazardous waste regulations.
- Section 66273.32 - California's notification regulations require all universal waste handlers to provide written notification to receive either a federal EPA ID number or State ID number. However, federal regulations only require large quantity

handlers of universal waste to send written notification and receive a federal EPA ID number.

- Section 66273.35 - California does not permit accumulation of universal waste for longer than one year, whereas federal regulations in section 273.35 have an exemption for universal waste to be stored for over one year.
- Section 66273.36 - California regulations list extra training requirements, such as the frequency of training, content of the training, and record keeping.
- Section 66273.38(d) - California's offsite shipment regulations require a universal waste handler or destination facility to agree to receive a shipment of universal waste. However, federal regulations in section 273.18(d) only require universal waste handlers to agree to receive the shipment.

C. Transporter Requirements

California's standards for universal waste transporters contain four sections where the California's regulations are more stringent than federal regulations:

- Section 66273.51(c) – California prohibits more than five CRTs from being transported at any one time unless the CRTs are contained as described in section 66273.33.5. Federal regulations do not have a numeric limit on how many CRTs can be transported at once.
- Section 66273.51(d) – California prohibits more than 100 kilograms (220 pounds) of electronic devices at any one time from being transported unless they are contained as described in section 66273.33.5. Federal regulations do not have a weight limit.
- Section 66273.53(a) – California allows transporters to store universal waste at a universal waste transfer facility for ten days or less only in an area zoned "industrial" and for six days or less in all other areas. Federal regulations in section 273.53(a) allow transporters to store universal waste at universal waste transfer facilities for ten days or less.
- Section 66273.53(b) – California recognizes universal waste transporters who store universal waste longer than ten days as universal waste handlers who must comply with the applicable requirements of the universal waste handler requirements found in article 3 of chapter 23. Also, there are handler requirements in article 3 that are more stringent than the federal handler requirements in subpart B or C (as described in part B above).

D. Destination Facility Requirements

Section 66273.60(a) - California requires owners or operators of a destination facility that recycle a universal waste without storing it before it is recycled to obtain state permit. Federal regulations do not require a permit for direct transfers into a recycling unit.

E. Import Requirements

California's import standards are more stringent in three sections because they correspond to other articles in chapter 23 that are more stringent than federal regulations:

1. Section 66273.41(a)(1) – Transporter requirements are subject to requirements found in article 5 of chapter 23 (see section C above).
2. Section 66273.41(a)(2) – Handler requirements are subject to requirements found in article 3 of chapter 23 (see section B above).
3. Section 66273.41(a)(3) – Destination facilities requirements are subject to requirements found in article 6 of chapter 23 (see section D above).

Areas where the California program is broader in scope

A. Notification

California regulations require small quantity generators (SQGs) to notify DTSC and obtain a State ID number. Federal regulations in section 273.32 do not require SQGs to notify U.S. EPA or obtain a federal EPA ID number.

B. Mercury-Added Lamps Toxicity

California's hazardous waste characteristic criteria for toxicity in California Code of Regulations are more stringent than the federal counterpart. Because it is based on state toxicity standards found in California Code of Regulations, title 22, division 4.5, chapter 11, this section will cause lamps not covered under federal regulations to be covered under the California universal waste program. This makes the section broader in scope.

California-only universal wastes

Since adopting the universal waste program, California has added four non-RCRA waste streams to its universal waste program: (1) aerosol cans, (2) CRTs, (3) CRT glass, and (4) electronic devices. Including these four waste streams in the California universal waste program does not impose requirements that are less stringent than the federal program. The added waste streams meet the criteria in 40 Code of Federal Regulations section 273.81, including the key requirements that universal waste management is sufficiently protective of human health and the environment and that regulation as universal waste increases the likelihood of similar unregulated wastes being diverted from non-hazardous to hazardous waste management systems. Additionally, these waste streams are managed as non-RCRA hazardous waste and/or comply with any comparable federal exclusions and exemptions.

California consolidation of large and small quantity handler requirements

California's initial adoption of universal waste regulations in 2002 mirrored the federal universal waste generator requirements and divided universal waste handlers into two categories: small quantity handlers and large quantity handlers. Each category had its

own standards, which were, in large part, duplicative. However, in 2009, California revised its universal waste program to consolidate these two generator categories into one, and apply a single set of standards to the consolidated category. This simplified the regulations to improve compliance and clarity. In some cases, this approach resulted in the application of more stringent standards for handlers who would otherwise qualify as small quantity handlers under the federal regulations.

271.6(b) Organization and Structure of DTSC

DTSC does not have one specific program with direct oversight of California's universal waste program; rather, the various programs within DTSC work in collaboration to administer the program. See Appendix B, figures 1, 2, and 3 for the CalEPA, DTSC, and Hazardous Waste Management Program organizational charts as of June 2019.

Branches and divisions within the DTSC Hazardous Waste Management Program:

- Policy and Program Support Branch (PPSB)

  PPSB is comprised of three units: Policy Development Unit, Program Implementation Unit, and Industry Assistance, Training, and Outreach Unit. The Policy Development Unit is responsible for developing regulations that impose requirements and standards on regulated businesses that handle hazardous waste, including RCRA Authorization requirements. It is also responsible for regulation package development and providing legislative support for policies that affect the program. The Program Implementation Unit implements a variety of regulatory and legislative mandates and requirements, including administration of the RCRA Grant and electronic waste system, among others. The Industry Assistance, Training, and Outreach Unit provides waste determination information, guidance, interpretation of HWCL, and provides a means for the public and regulated entities to contact DTSC regarding their hazardous waste questions.

- Permitting Division

  The Permitting Division is responsible for administering the Hazardous Waste Facility Permitting Program established under California Health and Safety Code, division 20, chapter 6.5, article 9. The Hazardous Waste Permitting Program is conducted consistent with U.S. EPA requirements for transfer, treatment, storage, and/or disposal facilities, including:

  - Review of RCRA and non-RCRA hazardous waste permit applications to ensure safe design and operation
  - Issuance/suspension/revocation/denial of operating permits
  - Issuance of post-closure permits
  - Approval/denial of permit modifications

- Enforcement and Emergency Response Division (EERD)

  EERD enforces HWCL by monitoring hazardous waste transfer, storage, treatment, and disposal, and taking appropriate action against violators.

Additionally, the Emergency Response Program (ERP) provides statewide response to actual and potential releases of hazardous waste that pose an acute threat to public health and/or the environment, including clandestine drug labs. ERP collaborates with other state, federal, and local agencies in carrying out these emergency response activities. ERP responds to statewide calls requesting DTSC assistance for emergency removals from illegal/clandestine drug labs and other hazardous materials (HazMat) emergencies. Requests for assistance are handled by the ERP's Emergency Response Duty Officers and other personnel.

- Office of Criminal Investigations (OCI)

  OCI is staffed with sworn peace officers classified as investigators with the powers of arrest, and search and seizure. In addition, OCI has environmental scientists that work together with the investigators. OCI is charged primarily with investigating alleged criminal violations of HWCL and routinely pursues a wide range of both felony and misdemeanor cases.

Other programs within DTSC:

- Safer Products and Workplaces Program

  This program is responsible for implementing regulations to address adverse impacts to human health and the environment resulting from exposure to toxic chemicals in consumer products and to stimulate innovative design of safer consumer products.

- Office of Environmental Information Management (OEIM)

  OEIM is responsible for the implementation, enhancement, and maintenance of DTSC's computer systems and supporting infrastructure. They maintain the online data and reporting systems for DTSC.

- Site Mitigation and Restoration Program

  The Site Mitigation and Restoration Program is responsible for overseeing approximately 220 hazardous substance release sites at any given time and completes an average of 125 cleanups each year. An estimated 90,000 properties throughout California - including former industrial properties, school sites, military bases, small businesses, and landfills - are contaminated, or believed to be contaminated, with some level of hazardous substances. Some of these are "brownfields," sites that often sit idle or underused, contributing to both urban blight and urban sprawl.

- Office of Environmental Equity

  As of March 2019, the Office of Public Participation merged with Environmental Justice and Tribal Affairs to become the Office of Environmental Equity. The Office of Environmental Equity provides quick and easy access to information, provides early public involvement, and establishes ongoing regional relationships with communities. The office actively consults with tribes to establish early

outreach protocols for projects that involve activities that may disturb cultural, archeological, or natural resources. It also works with the Hazardous Waste Management Program to consult with tribes and develop environmental justice analyses early in the permit application or renewal process.

- Office of Legal Counsel

  The Office of Legal Counsel provides legal services and representation for DTSC.

- Environmental Chemistry Lab (ECL)

  ECL is the reference laboratory for the State of California. In that capacity, ECL provides DTSC and other departments, boards, and offices within CalEPA with expertise and laboratory capacity in the areas of analytical and environmental chemistry.

- Office of Legislation and Regulatory Review

  The Office of Legislation and Regulatory Review is responsible for coordinating, analyzing, and recommending actions on all state and federal legislative proposals impacting DTSC. The office also serves as the primary liaison between DTSC's programs, the California Legislature and external interest groups. The office provides regulatory assistance and coordination for rulemaking projects between DTSC, the Office of Administrative Law, and the Department of Finance.

- Office of Administrative Services

  The Office of Administrative Services is responsible for providing DTSC with administrative support services, including accounting, human resources, training, and budgets.

- Office of Communications

  The Office of Communications develops comprehensive communication strategies to increase transparency and inform the public and stakeholders of activities, services, and successes. It is DTSC's communication arm.

271.6(b)(1) General Staff Information

DTSC employs over 1,000 staff, including scientists, engineers, toxicologists, chemists, geologists, attorneys, criminal investigators, and administrative staff. Staff work out of eight offices located in Sacramento (two offices, headquarters and a regional office), Berkeley, Clovis, Cypress, Chatsworth, El Centro, and San Diego, and two environmental chemistry laboratories located in Berkeley and Pasadena.

271.6(b)(2) & (3) Cost Estimates and Funding for Running the Program

An itemization of the estimated costs of administering the programs within DTSC, including cost of the personnel, is listed in Table 1. Table 2 lists the funding sources for operation of DTSC and Table 3 lists the funding sources for State CUPAs. These

estimates, taken from the Governor's Proposed Budget for 2019-2020, encompass the current state fiscal year and the first two years after program approval.

Table 1. DTSC Position and Expenditure Estimates						
	Positions			Expenditures		
	2018-2019	2019-2020	2020-2021*	2018-2019†	2019-2020†	2020-2021†*
Site Mitigation and Restoration Program	314.6	317.6	317.6	$168,108	$147,278	$147,278
Hazardous Waste Management	386.8	387.8	387.8	$80,869	$89,631	$89,631
Safer Consumer Products	65.8	65.8	65.8	$15,447	$15,440	$15,440
State Certified Unified Program Agency	9.7	9.7	9.7	$1,896	$2,313	$2,313
Exide Technologies Facility Contamination Cleanup	0	0	0	$82,253	$112,173	$112,173
Administration	176.9	176.9	176.9	$37,148	$37,154	$37,154
Administration – Distributed	0	0	0	$-37,148	$-37,154	$-37,154
Total	**953.8**	**957.8**	**957.8**	**$348,573**	**$366,835**	**$366,835**

*Position and expenditure figures for 2020-2021 are estimates.
† Dollars in thousands
Source: California Department of Finance, "2019-20 Governor's Proposed Budget" (January 10, 2019).

Table 2. DTSC Funding Sources			
Funding	2018-2019†	2019-2020†	2020-2021†*
General Fund	$69,154	$62,341	$62,341
Hazardous Waste Control Account	$61,000	$48,555	$48,555
Site Remediation Account	$14,288	$18,777	$18,777
Unified Program Account	$1,411	$1,348	$1,348

Table 2. DTSC Funding Sources			
Funding	2018-2019†	2019-2020†	2020-2021†*
Illegal Drug Lab Cleanup Account	$810	$0	$0
Childhood Lead Poisoning Prevention Fund	$61	$61	$61
California Used Oil Recycling Fund	$468	$468	$468
Department of Pesticide Regulation Fund	$54	$54	$54
Air Pollution Control Fund	$50	$50	$50
California Environmental License Plate Fund	$1,500	$0	$0
Waste Discharge Permit Fund	$0	$0	$0
Removal and Remedial Action Account	$3,185	$3,185	$3,185
Site Operation and Maintenance Account, Hazardous Substances Account	$200	$300	$300
Toxic Substances Control Account	$134,986	$167,945	$167,945
Federal Trust Fund	$34,472	$34,277	$34,277
Reimbursements	$14,527	$14,531	$14,531
Cleanup Loans and Environmental Assistance to Neighborhoods Account	$3,000	$500	$500
Electronic Waste Recovery and Recycling Account, Integrated Waste Management Fund	$2,429	$2,430	$2,430
State Certified Unified Program Agency Account	$1,746	$2,163	$2,163
Birth Defects Monitoring Program Fund	$78	$68	$68
Lead-Acid Battery Cleanup Fund	$2,999	$8,755	$8,755
Revolving Loans Fund	$2,155	$1,027	$1,027
Total	**$348,573**	**$366,835**	**$366,835**

*Position and expenditure figures for 2020-2021 are estimates.
† Dollars in thousands
Source: California Department of Finance, "2019-20 Governor's Proposed Budget" (January 10, 2019).

Table 3. Funding for State CUPA Operation Funds			
	2018-2019	2019-2020	2020-2021*
Reimbursements	$150,000	$150,000	$150,000
State Certified Unified Program Agency Account	$1,746,000	$2,163,000	$2,163,000
Totals	**$1,896,000**	**$2,313,000**	**$2,313,000**
*Position and expenditure figures for 2020-2021 are estimates. Source: California Department of Finance, "2019-20 Governor's Proposed Budget" (January 10, 2019).			

271.6(c) State Procedures

Permitting Procedures

DTSC is federally delegated for the RCRA, Subtitle C, Hazardous Waste Permitting Program. The Hazardous Waste Permitting Program is conducted consistent with U.S. EPA requirements and in accordance with HWCL.

A facility managing fully regulated RCRA hazardous waste for transfer, treatment, storage, and/or disposal is required to submit a hazardous waste permit application to DTSC for review and approval. The application consists of a Part A application (U.S. EPA Form 8700-23), a Part B application, submission of a detailed description of the applicant's waste, waste management units and procedures, waste analysis plan, emergency procedures, and plans for closure and financial assurance. Upon receipt of an application, the Permitting Division performs an administrative completeness review, which is typically completed within 30 days. If the application is determined to be administratively complete, the permit application will undergo a substantive technical review using regulations and guidance by technical staff within DTSC. If deficiencies are identified during the technical review phase, the applicant will be notified by a written Notice of Deficiency, which formally notifies the applicant of technical corrections required for a technically complete application.

The technical review phase is completed when a draft permit decision document is prepared by DTSC. U.S. EPA peer-reviews the draft permit decision document. The public comment period begins when the draft permit decision document is available for review by the applicant and the public. Public comments are carefully reviewed, with written responses prepared by DTSC. Following the public comment period, DTSC issues a final permit decision, and if deemed appropriate, a hazardous waste facility permit.

Generally speaking, hazardous waste facility permits are required to be renewed every 10 years. Permits may also be modified during the 10-year term if requested by the applicant and approved by DTSC. In certain circumstances, a DTSC- or U.S. EPA-initiated modification may be made.

In addition, DTSC must comply with the California Environmental Quality Act (CEQA)[5] when it makes a discretionary permit decision, which includes an evaluation to identify significant environmental impacts and measures to avoid and mitigate those impacts, as feasible. California differs from the federal hazardous waste permit program in that permits are not a shield; that is, the facility must meet all applicable law and regulations, not just conditions of the permit.

Enforcement Procedures

EERD and OCI are responsible for conducting routine and targeted compliance inspections, and criminal investigations. On an annual basis, EERD conducts more than 400 routine inspections of hazardous waste transporters (approximately 900), permitted facilities (119 facilities holding 127 permits), universal waste collectors (475) and recyclers (47). DTSC enforcement staff also perform additional inspections at facilities that require an in-depth look, such as electronic waste treatment facilities. Targeted inspections may be conducted prior to a permit decision or because of specific concerns. They also conduct investigations in response to complaints from the public and other sources received through the CalEPA complaint system and the DTSC Hazardous Waste Alert Hotline. Depending on the nature of the complaint, EERD or OCI may investigate the complaint or refer the complaint to a CUPA (described in the next section) or the appropriate local, state, or federal agency. DTSC may also initiate industry-wide evaluations as it did with metal recyclers in 2011 to ensure that management of hazardous materials and wastes by an entire sector complies with HWCL and is fully protective of human health and the environment.

When an inspection or investigation shows violations of the law, regulation, permit, or other requirement, EERD issues a Summary of Violations. The Summary of Violations describes each type of violation identified, and is the first step in the enforcement process. Depending on the nature of the violation discovered, the violation may be resolved criminally, civilly, or administratively. The resolution may consist of EERD issuing an administrative order to the violator, a consent order, or taking other actions tracked as enforcement actions, such as issuing an Imminent and Substantial Endangerment Order or an order to suspend a facility's operations. The process of initiating an enforcement action involves many steps, including: preparation of a detailed report; collection and organization of relevant documents (such as laboratory reports of sample analysis, correspondence, records, etc.); and assessing and documenting penalties.

Statutes of limitation require EERD and OCI to file enforcement actions within a specified period of time from the date of discovery of the violation. Felony charges must be filed within three years, misdemeanor charges must be filed within one year, and civil actions must be filed within five years. Settlement of an enforcement action requires a return to compliance, payment of a penalty, and may include a Supplemental Environmental Project. Resolution of criminal charges may result in

[5] CEQA is California's more stringent version of the federal National Environmental Policy Act (NEPA).

penalties and/or imprisonment.

CUPA Procedures

DTSC shares its enforcement responsibility with local agencies called CUPAs. California Health and Safety Code, division 20, chapter 6.11 authorizes these local agencies to enforce California's law as it applies to generators of hazardous waste. There are currently 83 CUPAs overseeing approximately 83,000 generators of hazardous waste in California.

The CUPAs evaluate generators for compliance in six areas: Hazardous Waste Generator and Tiered Permitting Program; Hazardous Materials Release Response Plans and Inventory Program; California Accident Release Prevention; Underground Storage Tanks; and Aboveground Petroleum Storage Act. CUPAs report their inspections and compliance actions every quarter. The California Environmental Reporting System (CERS) database collects and maintains this information. DTSC will analyze the data to evaluate CUPA's compliance trends and program performance.

CalEPA and DTSC, along with the California Governor's Office of Emergency Services, the Office of the State Fire Marshall, and the State Water Resources Control Board, conduct a program evaluation of each CUPA every three years to certify their ability to carry out their enforcement mandates. DTSC will review the appropriateness of CUPA inspection and enforcement decisions, according to California statutes adopted pursuant to RCRA, which define when something is a violation, whether it is a major or minor violation, and provide direction on how to proceed.

While CUPAs have primary authority over generators, DTSC reserves its right to conduct independent inspections and oversight inspections as allowed by law. As a result of these inspections, DTSC will take appropriate enforcement response according to its established policies. DTSC also retains its authority to initiate enforcement actions in cases where a CUPA fails to take appropriate enforcement action. In cases where a local or county agency does not wish to be a CUPA, DTSC may be designated the CUPA for that locality, as has been done for Trinity County and Imperial County. DTSC's performance in the locality is evaluated like any other CUPA.

Data Tracking Procedures

OEIM provides innovative technology solutions to programs and stakeholders. DTSC has unique business needs that requires custom databases and application solutions to achieve the mission to protect California's people, communities, and environment from harmful chemicals, such as the issuance of State and federal EPA ID numbers.

OEIM manages the Hazardous Waste Tracking System (HWTS) which stores and reports critical data on the movement of hazardous waste from and between hazardous waste generators, transporters, and hazardous waste treatment, storage, and disposal facilities (TSDFs) as identified in EPA Form 8700-22, also known as, Uniform Hazard Waste Manifest (manifest) forms.

271.6(d) Forms

U.S. EPA Forms and online systems used by California

Notification
EPA Form 8700-12
Instructions and form for hazardous waste generators, transporters, and treatment, storage, and disposal facilities to obtain a federal EPA ID number.
https://www.epa.gov/hwgenerators/instructions-and-form-hazardous-waste-generators-transporters-and-treatment-storage-and

Hazardous Waste Biennial Report
EPA Form 8700-13A/B
Federal regulations require large quantity generators to submit a report every two years regarding the nature, quantities, and disposition of hazardous waste generated at their facility.
https://www.epa.gov/hwgenerators/2015-hazardous-waste-report-instructions-and-form

Uniform Hazardous Waste Manifest Form and Continuation Sheet
EPA Form 8700-22 & 8700-22(A)
A hazardous waste manifest must accompany most hazardous waste that is shipped off site.
https://www.epa.gov/hwgenerators/uniform-hazardous-waste-manifest-instructions-sample-form-and-continuation-sheet

Part A Hazardous Waste Permit Application
EPA Form 8700-23
All facilities that currently treat, store, or dispose of hazardous wastes or plan to do so must obtain a RCRA-Equivalent permit.
https://www.epa.gov/hwpermitting/resource-conservation-and-recovery-act-hazardous-waste-part-permit-application-form

RCRAInfo
Online system for electronically accessing the electronic manifest (e-Manifests), requesting an EPA ID number, and completing the Biennial Report.
https://rcrainfo.epa.gov/rcrainfoprod/action/secured/login

California Forms and online systems

Annual Facility Report Website
All TSDFs are required to file the Annual Facility Report for activities conducted in the prior year.
https://hwts.dtsc.ca.gov/WRS/

Temporary State ID Number Issuance Website
This online system is used to obtain a temporary State ID number that is good for 90 days.
https://dtsc-web01.dtsc.ca.gov/epaid/default.aspx

Permanent State ID Number Issuance Form - DTSC Form 1358
DTSC Form 1358 is used to apply for a permanent State ID number.
https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/06/GISS_FORM_1358.pdf

Electronic Verification Questionnaire Website
This online system is used to ensure that the information on record for the EPA ID number is correct and current.
https://evq.dtsc.ca.gov/Home.aspx

Universal Waste Electronic Devices
This online system is used for notification and reporting requirements for electronic wastes.
https://hwts.dtsc.ca.gov/uwed/

Transporter Quarterly Report (TQR) System
The TQR System allows consolidated transporters to submit quarterly reports electronically.
https://tqr.dtsc.ca.gov/

California Websites

Department of Toxic Substances Control Universal Waste Website
https://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/

271.6(e) DTSC's Compliance and Tracking Program

DTSC uses two main systems to track compliance with HWCL. These systems include the EnviroStor systems and HWTS.

EnviroStor

The EnviroStor system is DTSC's cloud-based system used to track detailed information concerning DTSC's business programs. The Permitting Division, EERD, and Site Mitigation and Restoration Program each have independent, electronic systems that support their respective business processes. These systems are linked, where required, by the business needs. Additionally, the EnviroStor Public Website provides the public with access to data for over 16,000 cleanup sites, hazardous waste facilities, enforcement actions and inspections, and over 200,000 documents related to DTSC's activities at these sites.

The information in EnviroStor is vital to DTSC's operation and is used for a variety of functions:

- Permitting Division EnviroStor contains data pertaining to the issuance of hazardous waste facility permits for TSDFs. This includes new operating permits, renewal permits, and post-closure permits. Additionally, details pertaining to modifications and closures taking place subsequent to the issuance of a permit

are tracked using this system. Several data and performance metric reports, tools, and workflow processes are built into the system.

- EERD EnviroStor contains data specific to the enforcement actions and investigations. This includes complaints originating from the CalEPA's complaint tracking system, complaint inspections, compliance evaluation inspections, financial records reviews, and focused compliance inspections. Inspections for generators, transporters, universal wastes, post-closure permits, standardized permits, and TSDF permits are tracked using this system. Additionally, enforcement actions taking place subsequent to inspections are tracked using this system.
- Site Mitigation and Restoration Program EnviroStor contains data used to search for sites with known and potential contamination, and sites where DTSC's environmental oversight or review has been requested or required.

HWTS

HWTS is a foundational database that DTSC relies on to track shipments of hazardous waste. These hazardous waste shipments are tracked on manifest forms, which are submitted to DTSC. They are used for compliance purposes and to measure the amount and type of hazardous waste being produced in California. HWTS also provides information to analyze hazardous waste activities for policy and enforcement purposes, issue ID numbers, and register transporters.

The information in HWTS is vital to DTSC's operation and is used for a variety of functions:

- Verification that hazardous waste shipments have reached their intended destination.
- Verification that generators, transporters, and receiving facilities are complying with the manifesting and reporting requirements.
- Verification and understanding of hazardous wastes handled at each generator location.
- Tallying the amount and types of hazardous wastes being handled in California each year.
- Assessment of the various hazardous waste fees by the California Department of Tax and Fee Administration (CDTFA) and by DTSC.
- Measuring, comparing, and analyzing waste management trends over time.
- Serving as evidence in enforcement actions.
- Identifying potential violations and mismanagement of hazardous wastes, and allowing for the targeting of investigations and enforcement.

Enforcement and Hazardous Waste Management

Local, state, and federal enforcement agencies use HWTS data to prepare for inspections, audit recent patterns of activities before inspections, target inspections based on possible violations, investigate complaints and criminal activities, and provide documentary evidence in court (primarily manifest images). These activities rely on the up-to-date manifest data and reports obtained from HWTS.

ID Number Issuance and Tracking

HWTS is used to issue State ID numbers and track federal EPA ID numbers. DTSC Form 1358 provides handlers of non-RCRA hazardous waste with a method of requesting, updating, or inactivating a State ID number. Handlers must complete all the applicable sections to be issued an ID number. DTSC staff enters the information into HWTS and a State ID number is issued to the site.

Large quantity generators (LQGs) and SQGs of federal hazardous waste are required to obtain a federal EPA ID number using EPA Form 8700-12 and submit the form to DTSC as an authorized state agency to implement the RCRA hazardous waste program for processing. Federal EPA ID numbers are issued through the RCRA Information (RCRAInfo) system. Data entered into the handler module of RCRAInfo is transcribed into HWTS by OEIM staff.

Transporters

HWTS is used to register transporters and record that data for use by agencies and the public. HWTS maintains data on approximately 1,000 registered hazardous waste transporters. Generators of hazardous waste use the data to ensure the legal status of transporters they hire to transport hazardous waste.

The related TQR system tracks receipt information on shipments of hazardous waste where transporters consolidate waste from multiple generators on a single manifest. Only transporters with an enhanced authorization are allowed to consolidate wastes.

Fee Collection

DTSC's Office of Administrative Services, in part supported by the CDTFA, is responsible for collecting some of the hazardous waste fees. The hazardous waste fees are paid by a broad spectrum of businesses that generate or manage hazardous wastes. For the generator and disposal fees, CDTFA relies on manifest-derived information it extracts from HWTS.

DTSC relies on HWTS data to collect the EPA ID verification and manifest fee from generators. The annual Verification Questionnaire (VQ) and fees assessment for hazardous waste ID numbers and hazardous waste manifests are required by Health and Safety Code sections 25205.15 and 25205.16. The annual VQ and fees assessment is supported by DTSC's electronic Verification Questionnaire (eVQ) system. The online application facilitates the verification of ID Numbers, fees assessment, and fee payment.

Reporting

The HWTS reports are the main interface to hazardous waste data for state and local agency inspectors, environmental groups, and the public. System-created reports provide a wide variety of information on handlers and manifest data.

Annual Facility Report

The Annual Facility Report is required from all TSDFs on March 1 of each year. TSDFs must report all RCRA and non-RCRA hazardous waste, ID numbers of generators of waste received, methods of treating the waste, efforts taken to minimize the waste, method of onsite treatment, and form and source of the waste. TSDFs must provide DTSC with either closure and post-closure cost estimate and environmental monitoring data or ceased operating as a permitted or interim status hazardous waste facility. The report provides EERD, OCI, and the Permitting Division, and U.S. EPA with a picture of the TSDFs' hazardous waste activities.

Biennial Report

All LQGs that handled RCRA hazardous waste offsite in odd-numbered years must submit a Biennial Report by March 1 of even-numbered years. The report is used to update information in RCRAInfo and provides the nation with a picture of hazardous waste generation, onsite treatment, and offsite treatment of federal hazardous waste. It also provides the methods of treating the waste, efforts taken to minimize the waste, method of onsite treatment, and form and source of the waste.

Data Exchange

HWTS interfaces with the following internal/external systems through data extracts on a periodic basis: eVQ, TQR, EnviroStor, and RCRAInfo. HWTS then loads the data into other systems for consolidation or comparison.

271.6(f) Manifest Tracking

OEIM manages HWTS and collects information from the manifest. The manifest is used to track waste from generation to the receiving facility, cradle-to-grave. The information from these manifests is vital to understanding the movement of hazardous wastes in California.

On June 30, 2018, the Hazardous Waste Electronic Manifest (e-Manifest) System was implemented by U.S. EPA to facilitate the electronic transmission of the manifest. As of that date, all receiving facilities must submit manifests to the e-Manifest system and according to current California law, if the manifest begins as a paper copy, the generator must submit a copy of the manifest to DTSC. DTSC has access to U.S. EPA's e-Manifest system and can manually download manifest data as needed. OEIM is currently working with U.S. EPA to facilitate a data exchange process, which will enable data from the e-Manifest system to be directly transferred and uploaded into HWTS.

271.6(g) An estimate of the number of the following:

DTSC used HWTS to obtain estimates for the number of generators, transporters, and facilities in California. Data is reflective of information obtained on April 18, 2019.

271.6(g)(1) Generators

Table 4 shows the total number of generators in California as well as the quantity of each type of generator. The types of generators in California include LQGs, SQGs, and Conditionally Exempt Small Quantity Generators (CESQG). The following numbers were generated from the Counts of Regulated Handlers by Region Report on the RCRAInfo database.

Table 4. Generators in California	
Handler Type	Count
LQG	10,109
SQG	48,543
CESQG	1,979
Total Generators	**60,631**

271.6(g)(2) Transporters

The number of registered transporters in California is 767.

271.6(g)(3) Facilities

The number of TSDFs in California is 106. A complete listing of the TSDFs can be found in EnviroStor.[6]

271.6(h) Annual Quantities

Table 5 provides information regarding amounts of hazardous waste generated and shipped within and out of California during the 2017 calendar year. Weights were calculated using manifest reporting from DTSC's HWTS.

Table 5. Hazardous Waste Generated in 2017	
Shipments	Tonnage 2017 *
Shipped within California	1,213,178
Shipped out of California	891,676
Undefined TSDFs	3,722
Total California tonnage	**2,108,576**
* High-volume tonnage calculated from input by generators on manifest lines, such as quantities that cannot be reasonably transported, was not included.	

[6] "Permitted Hazardous Waste Facilities in California," Department of Toxic Substances Control EnviroStor, accessed June 17, 2019, https://www.envirostor.dtsc.ca.gov/public/report_permitted_public.asp

Appendix A

Table 1. Correspondence between U.S. EPA and California Hazardous Waste Regulations				
U.S. EPA Regulation	Effective Date Of Final Rule	Description	California Regulation	Effective Date
Subpart A - General				
273.1	August 8, 2005	Universal Waste Scope	66273.1	February 4, 2009
273.2	July 6, 1999	Applicability - Batteries	66273.2	February 4, 2009
	Not a federal universal waste	Electronic Devices	66273.3	February 4, 2009
273.4	August 8, 2005	Applicability – Mercury Thermostats	66273.4	February 4, 2009
273.5	July 6, 1999	Applicability - Lamps	66273.5	February 4, 2009
	Not a federal universal waste	Cathode Ray Tubes	66273.6	October 22, 2018
	Not a federal universal waste	Cathode Ray Tube Glass	66273.7	October 22, 2018
273.6	July 6, 1999	Reserved		
273.7	July 6, 1999	Reserved		
273.8	July 6, 1999	Applicability-Household and Very Small Quantity Generator Waste	66273.8	February 4, 2009
273.9	August 5, 2005	Definitions	66273.9	February 4, 2009
Subpart B - Standards for Small Quantity Handlers of Universal Waste				
273.10	July 6, 1999	Applicability	66273.30	February 4, 2009
273.11	May 11, 1995	Prohibitions	66273.31	February 4, 2009
273.12	May 11, 1995	Notifications	66273.32	February 4, 2009
273.13	August 5, 2005	Waste Management	66273.33	February 4, 2009
	Not a federal universal waste	Universal Waste Management Requirements for Electronic Devices, CRTs, and CRT Glass.	66273.33.5	February 4, 2009
273.14	August 5, 2005	Labeling/Marking	66273.34	February 4, 2009
273.15	May 11, 1995	Accumulation Time Limits	66273.35	February 4, 2009
273.16	May 11, 1995	Employee Training	66273.36	February 4, 2009
273.17	May 11, 1995	Response to Releases	66273.37	February 4, 2009
273.18	May 11, 1995	Off-Site Shipments	66273.38	February 4, 2009
273.19	May 11, 1995	Tracking Universal Waste Shipments	66273.39	February 4, 2009
273.20	August 29, 2017	Exports	66273.40	August 20, 2018
Subpart C - Standards for Large Quantity Handlers of Universal Waste				
273.30	July 6, 1999	Applicability	66273.30	February 4, 2009
273.31	May 11, 1995	Prohibitions	66273.31	February 4, 2009
273.32	August 5, 2005	Notification	66273.32	February 4, 2009

Table 1. Correspondence between U.S. EPA and California Hazardous Waste Regulations				
U.S. EPA Regulation	Effective Date Of Final Rule	Description	California Regulation	Effective Date
273.33	August 5, 2005	Waste Management	66273.33	February 4, 2009
	Not a federal universal waste	Universal Waste Management Requirements for Electronic Devices, CRTs, and CRT Glass.	66273.33.5	February 4, 2009
273.34	August 5, 2005	Labeling/ Marking	66273.34	February 4, 2009
273.35	May 11, 1995	Accumulation Time Limits	66273.35	February 4, 2009
273.36	May 11, 1995	Employee Training	66273.36	February 4, 2009
273.37	May 11, 1995	Response to Releases	66273.37	February 4, 2009
273.38	May 11, 1995	Offsite Shipments	66273.38	February 4, 2009
273.39	May 11, 1995	Tracking Universal Waste Shipments	66273.39	February 4, 2009
273.40	August 29, 2017	Exports	66273.40	August 20, 2018
Subpart D – Standards for Universal Waste Transporters				
273.50	July 6, 1999	Applicability	66273.50	February 4, 2009
273.51	May 11, 1995	Prohibitions	66273.51	February 4, 2009
273.52	May 11, 1995	Waste Management	66273.52	February 4, 2009
273.53	May 11, 1995	Storage Time Limits	66273.53	February 4, 2009
273.54	May 11, 1995	Response to Releases	66273.66	February 4, 2009
273.55	May 11, 1995	Off-Site Shipments	66273.55	February 4, 2009
273.56	August 29, 2017	Exports	66273.56	February 4, 2009
Subpart E - Standards for Destination Facilities				
273.60	July 6, 1999	Applicability	66273.60	February 4, 2009
273.61	May 11, 1995	Off-Site Shipments	66273.61	February 4, 2009
273.62	May 11, 1995	Tracking Universal Waste Shipments	66273.62	February 4, 2009
Subpart F - Import Requirements				
273.70	May 11, 1995	Imports	66273.41	August 20, 2018
Subpart G – Petitions to Include Other Wastes Under 40 CFR Part 273				
273.80	May 11, 1995	General	66260.22	February 3, 2003
273.81	May 11, 1995	Factors for Petitions to Include Other Wastes Under 40 CFR Part 273	66260.23	February 3, 2003

Appendix B

Figure 1. CalEPA Organizational Chart.

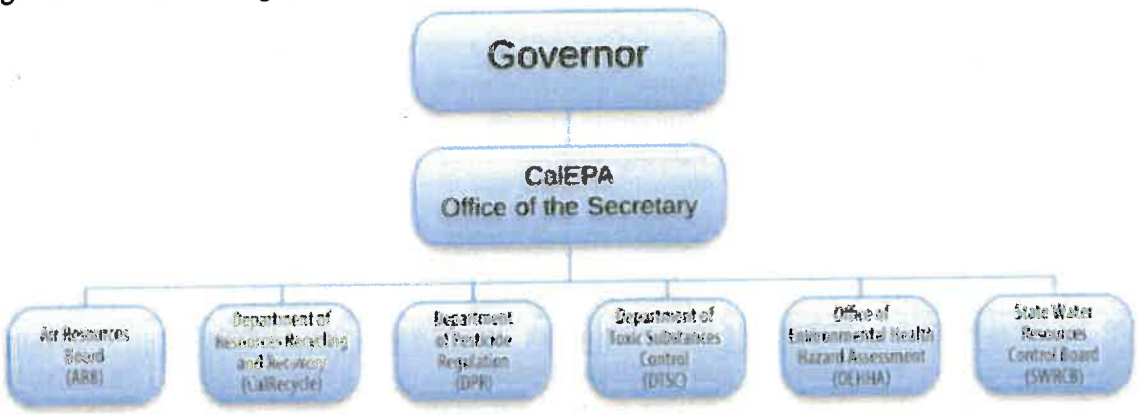


Figure 2. Department of Toxic Substances Control Organizational Chart

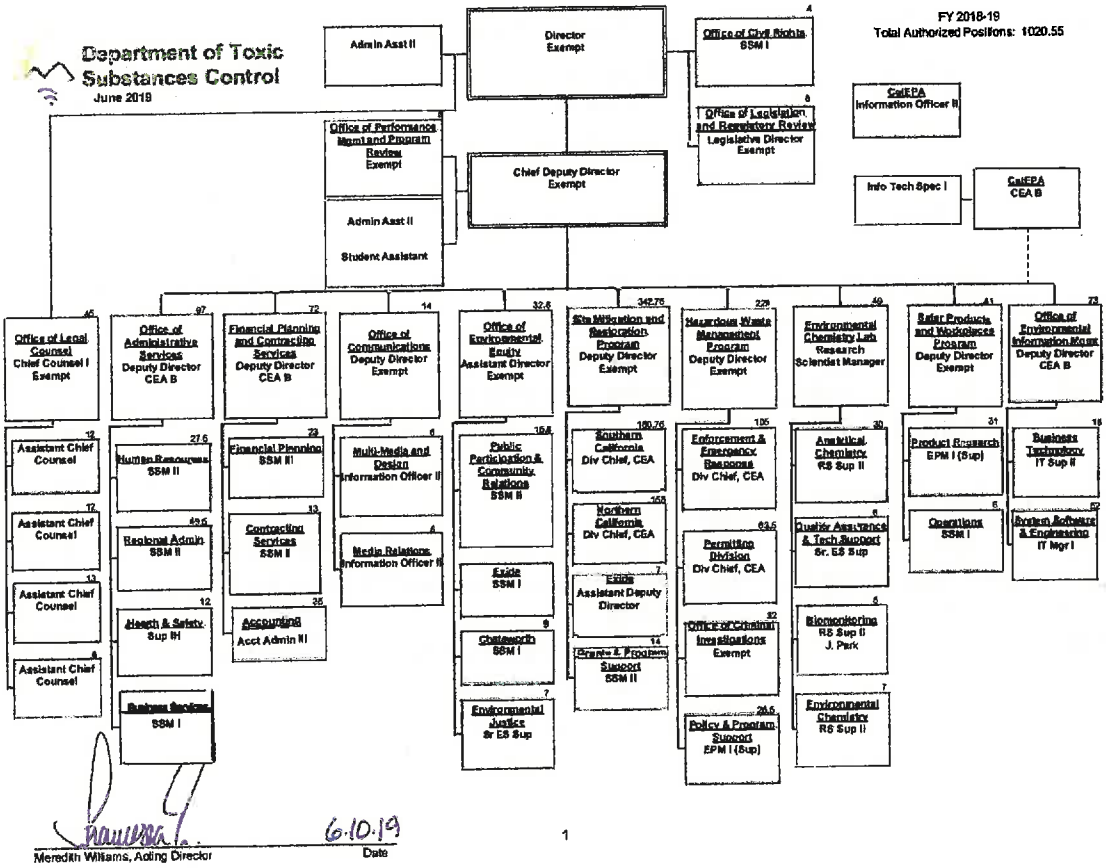
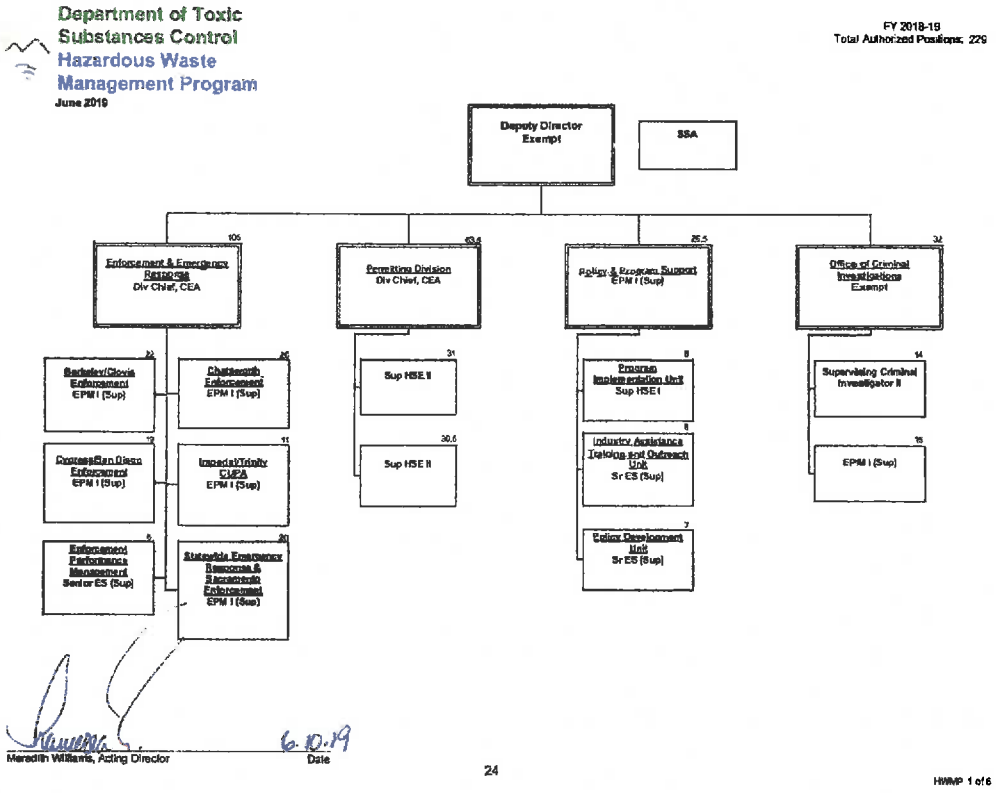


Figure 3. Hazardous Waste Management Program Organizational Chart



Justification for 66273.1(a)(7) – Aerosol Cans

Proposed Management Option as Universal Waste

U.S. EPA has proposed to add hazardous waste aerosol cans to the federal universal waste program regulated at 40 CFR 273 et. seq. (83 FR 11654). In the proposed rule, U.S. EPA encouraged states to add aerosol cans as a universal waste because it believed it would result in better management of this waste. California has managed aerosol cans as universal wastes since 2002. However, because the proposed federal rule is not yet finalized, this document compares California's regulations for aerosol cans to current federal regulations for this waste. Additionally, this document analyzes how aerosol cans meet the criterial listed in 40 Code of Federal Regulations (40 CFR) § 273.81, Factors for petitions to include other wastes under 40 CFR part 273.

Current Federal Aerosol Can Management Requirements

Any person who generates a solid waste, as defined in 40 CFR 261.2, must determine whether the solid waste qualifies as hazardous waste. Aerosol cans are frequently hazardous due to the ignitability characteristic, and in some cases, may also contain listed wastes or exhibit other hazardous waste characteristics. However, aerosol cans are not currently managed as a universal waste under federal regulations. Instead, aerosol cans must either be managed as a:

1) RCRA hazardous waste if the non-empty aerosol can is determined to meet the requirements in subpart D of 40 CFR 261 or if it is listed as a hazardous waste; or
2) If an aerosol can be made empty (per the requirements in 40 CFR 261.7(b)) before disposal, it can be recycled as a scrap metal and excluded from RCRA hazardous waste requirements.

Facilities that treat, store, or dispose of hazardous waste aerosol cans are subject to the requirements of 40 CFR part 264 (for permitted facilities), or the requirements of 40 CFR part 265 (for interim status facilities). Facilities receiving hazardous waste aerosol cans from off-site would require a RCRA permit for storage prior to the recycling activity, and the recycling process would be subject to subparts AA and BB of 40 CFR part 264, 265, or 267. However, when hazardous waste aerosol cans are recycled, the recycling process itself is not subject to regulation, except as indicated in 40 CFR 261.6(d). Puncturing and draining an aerosol can, if performed for the purpose of recycling (e.g., for scrap metal recycling), is considered part of the recycling process and is exempt from RCRA permitting requirements under 40 CFR 261.6(c).

According to federal requirements, punctured, empty (40 CFR 261.7(b)) aerosol cans that are recycled are exempt from RCRA regulation if the puncturing is performed as part of a recycling process. Scrap metal that is recycled is exempt from RCRA regulation under this exclusion, so generators need not make a hazardous waste determination. Once the cans are considered RCRA-empty, they are exempt from federal hazardous waste rules.

Justification for 66273.1(a)(7) – Aerosol Cans

Simply put, under federal regulations, aerosol cans can be managed as scrap metal if they are made RCRA empty through processing (puncturing); however, if the aerosol cans do not meet RCRA empty standards and contain hazardous materials, then they must be managed as a RCRA hazardous waste.

Current California Aerosol Can Management Requirements

Unlike the other universal wastes, which are found in California Code of Regulations, title 22, division 4.5, chapter 23, universal waste management standards for aerosol cans are found in the California Health and Safety Code. Health and Safety Code section 25201.16 provides a management option for hazardous waste aerosol cans that reduces the regulatory and financial burden of managing hazardous waste aerosol cans by designating them as "universal waste." Generators, including homeowners, of waste non-empty aerosol cans are not allowed to dispose of the cans as solid waste (i.e., put them in the trash). However, any person may dispose of aerosol cans that meet the empty container requirements (Cal. Code Regs., title 22, § 66261.7) as solid waste or recycle empty cans as scrap metal (Cal. Code Regs., title 22, § 66261.6(a)(3)(B)). It should be noted that California's definition of "empty" is more stringent than the federal definition. A RCRA-empty container may be managed as a non-hazardous waste under the federal rules but is still considered hazardous waste in California. In California, a RCRA-empty container is still a hazardous waste unless it also meets the California Code of Regulations, title 22 requirements for "empty" in California Code of Regulations, title 22, section 66261.7. Also, if a hazardous waste aerosol can is not recycled or emptied, it is subject to full RCRA hazardous waste management requirements. This is similar to the federal regulations.

All handlers of universal waste aerosol cans in California must comply with the requirements of Health and Safety Code section 25201.16 (e), (f), (g), and (k). Some requirements include: training employees on the proper procedures for sorting and processing aerosol cans; accumulating and transporting universal waste aerosol cans in containers that are structurally sound, compatible with the contents of the can, and show no evidence of leaks, spills, or damage that could cause leaks; and labeling containers of universal waste aerosol cans with one of the following phrases: "Universal Waste Aerosol Cans," "Waste Aerosol Cans," or "Used Aerosol Cans." A handler who processes universal waste aerosol cans is subject to additional requirements in Health and Safety Code section 25201.16 (h), (i), and (j). Federal regulations do not require handlers to meet such standards for recycling empty aerosol cans as they are excluded from the definition of solid waste if they are recycled.

One final similarity between the federal regulations and California's statutory requirements is the commercial processing of waste aerosol cans. Under California's management requirements, universal waste handlers may process the cans onsite without a permit under certain conditions. Offsite commercial processors of hazardous waste aerosol cans are prohibited from processing aerosol cans under the universal waste aerosol can statute (Health & Saf. Code § 25201.16(h)(1)). They remain subject

to all DTSC permitting, reporting, record keeping, and facility requirements for the management of hazardous waste under Health and Safety Code and California Code of Regulations, including obtaining proper authorization for the type of treatment they conduct (Health & Saf. Code § 25201.16(a)(7) and 25201.16(h)(1)). Similarly, as mentioned above, federal regulations allow onsite processing of hazardous waste aerosol cans, however, it they are taken offsite, they must meet permitting requirements. Further, under both federal and California rules, if the contents drained from the aerosol cans are determined to be hazardous by the generator, the drained waste must be managed as hazardous waste.

Factors for petitions to include other wastes under 40 CFR part 273

Below are responses to how aerosol cans meet the criteria of 40 CFR 273.81:

- Aerosol cans exhibit one or more characteristics of hazardous waste identified in Subpart C of part 261. They frequently demonstrate the hazardous characteristic for ignitability due to the nature of the propellant used. In addition, the contents (propellant or product) may also cause the can to be a hazardous waste for other reasons if discarded.
- Universal waste handlers that manage hazardous waste aerosol cans are not exclusive to a specific industry or group. They are commonly generated by a wide variety of types of establishments, including households, retail and commercial businesses, office complexes, very small quantity generators, small businesses, government organizations, as well as large industrial facilities.
- Aerosol can waste is generated by a large number of generators, including households and retail stores. Quantities generated vary depending on the type of generator and the situations associated with generation.
- DTSC has used universal waste requirements on aerosol cans since the regulations went into effect in 2002. These regulations have ensured close stewardship of the hazardous waste aerosol cans.
- The risks posed by aerosol cans during accumulation and transport are relatively low compared to the risks posed by other hazardous wastes. Aerosol cans are designed to contain the products they hold during periods of storage and transportation as they move from the manufacturer, to the retailer, and ultimately to the final customer. As long as they remain intact, hazardous waste aerosol cans would present a lower risk as compared to other types of hazardous waste that are not contained as-generated under normal management conditions.
- Classifying aerosol cans as universal waste allows for more collection and consolidation points for handlers to properly collect these wastes. This, in turn, has diverted aerosol cans that might have gone to municipal solid waste landfills to be recycled. Management under universal waste standards streamlines the collection and handling of aerosol cans, making it more economical and safer for handlers.
- Regulation of aerosol cans under universal waste standards has improved implementation and compliance among universal waste handers. The simpler, streamlined management standards under universal waste make it more likely

that handlers will comply with the disposal requirements, instead of either disposing of them illegally in landfills or managing them as RCRA hazardous waste, which is more challenging.

Therefore, California's universal waste regulations for aerosol cans are as effective as the federal regulations in managing the waste stream, making California's management requirements at a minimum, equivalent to the federal requirements.

Justification for 66273.1(a)(2) – Electronic Devices

In California electronic devices are managed as universal waste under California Code of Regulations, title 22, division 4.5, chapter 23. This approach allows California to facilitate the segregation, collection, and proper recycling and disposal of these wastes. Unlike California, the federal rules do not provide for the management of electronic devices as universal waste. Electronic devices are managed as RCRA hazardous waste.

U.S. EPA allows authorized states to create regulations for state-only universal wastes provided that the criteria in 40 Code of Federal Regulation §273.81 are met for the waste or waste category, including the key requirements that universal waste management is sufficiently protective of human health and the environment and that regulation as universal waste increases the likelihood of similar unregulated wastes being diverted from non-hazardous to hazardous waste management systems.

Multiple states, including California, have already added electronic wastes to their universal waste program. Other states include Hawaii, Colorado, and New Jersey. Recently, Hawaii's universal waste program was authorized by U.S. EPA. In their justification for authorization, Hawaii stated that based on extensive research most waste electronic items are toxicity characteristic hazardous wastes due to the presence and concentration of one or more metals and may also contain other hazardous constituents. California's definition for electronic devices also specifies that electronic devices are hazardous waste because they exhibit the characteristic of toxicity. Hawaii and California also list similar examples of what are considered electronic devices, such as, computer monitors, computer peripherals, and answering machines. Hawaii also determined that electronic items as a category met the criteria of 40 CFR §273.81 to create regulations for this state-only universal wastes. The federal Universal Waste Rule allows states the flexibility to add additional hazardous wastes to their state list of universal wastes without requiring the waste to be added at the federal level.

California demonstrated that Consumer Electronic Devices (CEDs) and CRT materials met the requirements of 40 CFR §273.81 in the initial statement of reasons for its proposed rule to add electronic devices as a universal waste.[1] This justification was included to determine whether CEDs could be managed as universal waste in California. At the time, the definition for CEDs was any electronic device, or any component of an electronic device, including, but not limited to, computers, computer peripherals, telephones, answering machines, radios, stereo equipment, tape players/recorders, phonographs, video cassette players/recorders, compact disc players/recorders, calculators, and some appliances. A consumer electronic device does not include CRT device as defined in this section, or any major appliance as defined in the Public Resources Code section 42166. The requirements of this chapter only apply to consumer electronic devices as described in section 66273.3(a) (i.e., those wastes that exhibit the characteristic of toxicity).

[1] Electronic Hazardous Waste Regulations: Initial Statement of Reasons (to see full justifications see pages 21-23 of document).

Justification for 66273.1(a)(2) – Electronic Devices

In the final rule, the category Consumer Electronic Devices was re-designated as "electronic devices" and the definition updated.[2] The new term, "electronic device" and its definition improved clarity for the regulated community as it more appropriately classified "electronic devices" to include "all" devices that contain a CRT. For example, under the proposed definition, televisions and computer monitors were included in the new universal waste category of "electronic devices."

Because the electronic waste category was adjusted in the final rule, electronic devices' applicability to the criteria under § 273.81 have been analyzed again below. The seven factors used for CEDs still apply to the new category of electronic devices.

- Electronic devices are generated by a wide variety of generators. They are commonly generated by households, businesses, governments, and other entities.
- Electronic devices are generated by many industries and a wide variety of sectors of society. They are generated by universities, households, retail stores.
- Electronic devices are frequently generated by a large number of generators and in small amounts. According to CalRecycle, each year in California hundreds of thousands of computers, monitors, copiers, fax machines, printers, televisions and other electronic items become obsolete by consumers. This shows electronic devices are generated in large quantities, however, individual generators generate these wastes sporadically in limited quantities.
- DTSC believes that the universal waste requirements will ensure that the electronic devices
  are not mismanaged. DTSC has been managing electronic devices universal wastes for many years and has been effective in ensuring the hazardous components of electronic devices are properly controlled.
- DTSC believes electronic devices are low risk compared to most other hazardous wastes. In fact, most people routinely handle these intact devices on a daily basis without any special precautions. The electronic devices are often portable and are routinely carried and moved about without breakage.
- Classifying electronic devices as universal waste has allowed for more collection and consolidation points for handlers to properly collect and manage electronic waste.
- Classifying electronic devices as universal waste has helped improve the implementation and overall compliance of recycling electronic waste. The number of recyclers in California has grown since the regulations were adopted and local governments have developed local collection programs in response to the greater flexibility provided under the universal waste standards.

Therefore, electronic devices meet the criteria of 40 CFR § 273.81 and can be appropriately managed as universal waste.

[2] Electronic Hazardous Waste Regulations (R-01-06): Final Statement of Reasons

Mercury-Containing Devices Justification for MCEs that meet the federal MCE definition

Seven of the ten devices listed in California's definition for Mercury-Containing Equipment (MCE) fall under the federal definition listed in the Hazardous Waste Management System; Modification of the Hazardous Waste Program; Mercury Containing Equipment; Final Rule federal register (70 FR 45508), and; Economic Analysis of Including Mercury Containing Equipment in the Universal Waste System: Final Rule (Docket ID No. RCRA-2004-0012)

According to U.S. EPA's economic analysis, MCE is defined as "...any device that contains metallic mercury as a component necessary for its operation...", with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: thermometers; switches and relays; gauges and meters; and "other devices." Examples of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators and recoil suppressors.

According to California's definition, which lists out specific equipment, MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator.

Most of California's listed MCEs fit within the federal definition of MCE (see comparison table below).

Federal Definition of Mercury-Containing Equipment	California Definition of Mercury-Containing Equipment
thermostats	thermostat
switches	mercury switch
thermometers	thermometer
barometers, manometers (both pressure devices)	pressure or vacuum gauge
Listed as Other Equipment/Devices	mercury counterweight and damper
Listed as Other Equipment/Devices	dilator and weighted tubing
Gauges and Meters	gas flow regulator (type of meter)
	mercury-added novelty
	dental amalgam
	mercury-containing rubber flooring

The justifications and § 273.81 factor analysis for mercury-added novelties, dental amalgams, and mercury-containing rubber flooring are discussed below.

Mercury-containing rubber flooring, dental amalgams, and mercury-added novelties justification

Mercury-containing rubber flooring

At least one brand of mercury-containing rubber flooring—used mainly in gymnasiums until the late 1970s - was manufactured with intentionally added mercury. (To DTSC's knowledge, mercury is no longer used in the manufacturing of rubber flooring.) Samples of such flooring were tested and found to exceed the toxicity characteristic leaching procedure[1] (TCLP) for mercury, making the flooring hazardous waste when discarded. For this reason, DTSC added all mercury-containing rubber flooring to its list of universal waste MCE by justifying that it met the factors for adding wastes in 40 CFR § 273.81.

Mercury-containing rubber flooring is unlike the other mercury-containing wastes. Its mercury is not in a liquid form, and is not contained in a discrete component of the waste. Spillage of the mercury is; therefore, less of a concern than for the other MCE. Further, pieces of waste flooring may be generated that are too large to fit in a drum or other common container. Consequently, the waste management standards in this subsection are minimal; they require only that flooring be managed "in a way that prevents releases of any universal waste or component of a universal waste to the environment."[2]

Mercury-added novelties

According to the economic analysis document for including MCE[3] in the federal universal waste program, handlers of post-consumer MCE are excluded from universal waste and RCRA regulations. California describes mercury added novelties as mercury-added product intended mainly for personal or household enjoyment or adornment.[4] California then goes on to include it in the definition of MCE and manage it as universal waste. This makes California more stringent in how it handles mercury-added novelties.

Mercury-added novelties fall into several categories:
- Novelties with liquid mercury;
- Novelties with mercury switches;
- Novelties with button-cell or other mercury-containing batteries;
- Novelties painted with mercury-containing paint; and
- Novelties with mercury-containing lamps.

California Public Resources Code section 15027 banned the sale of mercury-added novelties, effective January 1, 2003. Mercury-added novelties were then designated as hazardous wastes in California's regulations (waste 'M004,' in California Code of Regulations, title 22, section 66261.50).

---

[1] Initial Statement of Reasons, Mercury Waste Classification and Management, Department Reference Number: R-02-04, California Department of Toxic Substances Control, July 30, 2002.

[2] California Code of Regulations, title 22, section 66273.33(c)(3).

[3] Economic Analysis of Including Mercury Containing Equipment in the Universal Waste System: Final Rule (Docket ID No. RCRA-2004-0012)

[4] California Code of Regulations, title 22, section 66273.9

Mercury-containing rubber flooring, dental amalgams, and mercury-added novelties justification

Novelties with switches or lamps are considered hazardous under listings M002 and M003 (in California Code of Regulations, title 22, section 66261.50), respectively; therefore, they are not included in the M004 listing. Novelties with liquid mercury would likely exceed the total threshold limit concentration (TTLC) and be classified as hazardous wastes under the toxicity characteristic. However, novelties that contain mercury button-cell batteries or mercury-containing lamps, as well as novelties painted with mercury-containing paint, may not have enough mercury to exhibit the toxicity characteristic. For this reason, California classified them as hazardous waste in California Code of Regulations, title 22, section 66261.50, to ensure all items that fall into the novelty definition are considered hazardous wastes when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. Because of this, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. This makes the state regulations more stringent.

Dental Amalgams

Silver amalgam restorations are widely used by dentists, and DTSC recognizes that the decision to use amalgam or another material is appropriately made by dentists and their patients. However, DTSC established standards for managing amalgam waste as hazardous because such wastes can exceed the TTLC for mercury.

When these regulations were first introduced, some amalgam waste were exempt from hazardous waste regulation, while other amalgam waste was fully regulated. Larger scraps of dental amalgam that are recycled are exempt as scrap metal, pursuant to California Code of Regulations, title 22, section 66261.6(a)(3)(B). Smaller amalgam fines (less than 100 microns in diameter) are not exempt, and may be subject to full hazardous waste regulation. To facilitate the proper management of amalgam wastes generated by dental offices, DTSC designated dental amalgam wastes as universal waste to ensure all dental amalgam was more effectively managed.

Dental amalgams are generally not regulated on the federal level because they fall under the very small quantity generator exception at 40 CFR § 262.14. Under state regulations, if the amalgam is found to be hazardous, regardless of the amount generated, it would be subject to universal waste requirements. This makes state regulations generally more stringent.

Factors for petitions to include other wastes under 40 CFR part 273

Below are responses to how mercury-added flooring, mercury-added novelties, and dental amalgams meet the criteria of 40 CFR 273.81:

- All three MCEs exhibit one or more characteristics of hazardous waste identified in Subpart C of part 261. As mentioned in the above sections, all three MCEs were tested and failed for toxicity for mercury.
- The main category of waste in this example is mercury-containing waste, which is not exclusive to a specific industry or group. At the time these three types of MCEs were added to California's definition, they were generated by different

industries and a wide variety of sectors of society. Mercury-added novelty waste was generated by household consumers and businesses. Dental amalgam waste was generated primarily by dental offices, and mercury-added flooring was used in different types of gymnasiums, such as schools and gymnastic studios.

- These three types of MCE waste are generated by many generators, including, households, generators who collected the wastes, schools, and dentist offices. They are also frequently generated in relatively small quantities by each generator.
- DTSC has used universal waste requirements on these waste streams since the regulations went into effect in 2003. These regulations have ensured that these specific MCEs have not been mismanaged.
- As described in the sections above, DTSC believes each MCE is low risk compared to most other hazardous wastes. This is due to the fact that these MCEs are not always found in liquid form and sometimes contain small amounts of mercury that usually would be exempt from RCRA requirements, except in California where they are considered listed hazardous wastes.
- Classifying these three MCE as universal waste has allowed for more collection and consolidation points for handlers to properly collect these wastes. As mentioned above in each section, some of these wastes were previously being disposed of in landfills and not properly handled.
- Classifying these three MCE as universal waste has helped improve the implementation and overall compliance of these MCE wastes. As long as these wastes are handled under universal waste regulations, they are handled in a safer manner and recycled, instead of being disposed of in landfills.

Justification for 66273.1(a)(5) & 66273.1(a)(6) - Cathode Ray Tubes (CRTs) & Cathode Ray Tube Glass

Overview on How CRT and CRT Glass is Regulated

Due to the presence of lead located in the funnel glass, CRTs are considered hazardous waste. According to federal and California regulations, CRTs and CRT glass can be managed with reduced requirements if they are destined for recycling and if certain conditions are met. U.S. EPA regulates recycled CRTs under a conditional exclusion. Under the federal CRT exclusion,[1] CRTs and CRT glass that meet the certain requirements are excluded from the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations entirely. California regulations instead allow CRTs and CRT glass destined for specific recycling methods to be managed as universal waste.[2] Whether regulated under federal or California regulations however, a handler can choose to manage CRTs and CRT glass as RCRA hazardous waste instead of recycling and managing them under the alternative standards.

According to 71 Federal Register 42930, a hazardous waste determination must be made prior to sending used or unused CRTs to a landfill or incinerator. If the CRT is found to be hazardous, the user/reseller/manufacturer must comply with all applicable hazardous waste generator requirements in 40 CFR part 262. If the CRTs are shipped to a hazardous waste landfill, they must also comply with applicable land disposal restrictions. In other words, if they do not meet the exclusion, then the CRTs must be managed as RCRA hazardous waste. Similarly, under California regulations, if CRTs are not managed as universal waste, then they must be managed under full hazardous waste standards.

Comparing the Federal CRT Exclusion to the State Universal Waste Program

The federal CRT exclusion is found in 40 CFR section 261.4(a) (22) and part 261, subpart E (261.39-261.41). This section sets out requirements that must be met in order for used, broken CRTs to be excluded from the definition of solid waste. The conditional requirements for the federal exclusion include requirements for storage, labeling, transportation, processing, and accumulation in 40 CFR section 261.39. California's universal waste standards for CRTs and CRT glass, found at California Code of Regulations, Title 22, Division 4.5, Chapter 23, are equivalent to the federal CRT exclusion requirements. In article 3, "Standards for Universal Waste Handlers," California regulations include requirements for United States Environmental Protection Agency (U.S. EPA) and Department of Toxic Substances Control (DTSC) notification, reporting requirements for universal waste handlers, personnel training, response to releases, offsite shipments, and tracking, just as in the federal exclusion. California regulations also require that CRT panel glass disposed in a CRT panel glass approved landfill must meet the criteria in California Code of Regulations, title 22, section 66273.81. Under federal regulations, hazardous CRT glass that has been treated to

[1] See title 40 of the Code of Federal Regulations, section 261.39, 261.40, and 261.41 for full federal exclusion text.
[2] See California Code of Regulations (CCR), title 22, section 4.5, chapter 23 for universal waste requirements.

meet the applicable land disposal restrictions in 40 CFR part 268 and no longer exhibits a hazardous waste characteristic may be disposed in a non-hazardous waste landfill.

The CRT federal export requirements found in 40 CFR section 261.39(a)(5) outline requirements for exporting used, broken CRTs. California has equivalent requirements in chapter 23, article 4, "Export and Import Requirements." Under California's universal waste export requirements, universal waste handlers who send universal waste to a foreign destination are subject to the requirements of 40 Code of Federal Regulations part 262, subpart H and article 8, chapter 12, division 4.5 of CCR title 22.

Finally, 40 CFR 261.39(d) specifies requirements for glass from used CRTs that is used in a manner constituting disposal. California regulations specify requirements for the same materials in section 66266.21, chapter 16, division 4.5 of CCR title 22.

CRT Glass Processing Requirements

Federal regulations outline requirements CRT glass processing in 40 CFR section 261.39. Processed CRT glass exported for CRT glass making or lead smelting is not subject to the export requirements of the CRT exclusion. CRT glass destined for export must still, however, meet the requirements for processed CRT glass in 40 CFR section 261.39(c). Specifically, under the CRT exclusion, the generator must be able to demonstrate that the exported CRT glass is being used for CRT glass making or lead smelting and not disposed in the receiving country, and that it is not being speculatively accumulated prior to being exported.

California regulations also outline the same and more detailed processing requirements in article 7, "Authorization Requirements for Universal Waste Handlers Who Treat Universal Wastes" in the universal waste regulations. California details additional requirements for removal activities, disassembling/draining activities, treatment activities, and even notification requirements. Not all of the requirements of the federal exclusion apply to such CRT panel glass. For example, the labelling requirements in section 261.39(a)(2) would not apply because the glass does not qualify as hazardous waste for its lead content based on RCRA toxicity. The export requirements in section 261.39(a)(5) are not applicable either because this particular type of glass is not regulated by U.S. EPA and thus would not require a notification to them. For the remaining requirements in section 261.39(b) that do apply to California's CRT glass category, California has its own equivalent requirements located in chapter 23, article 7.

The requirements of Health and Safety Code 25143.2.5 do not make California's requirements for managing CRT glass less stringent than the federal exclusion in any way. In California, barium oxide is a hazardous waste because of its toxic characteristics. Barium oxide is used in cathode ray tubes to provide radiation protection in the neck and funnel. Health and Safety Code 25143.2.5 provides that used, broken CRT panel glass and processed CRT panel glass that exceeds the total threshold limit

concentration only for barium is not a waste and is not subject to regulation if that panel glass meets certain requirements.

How does the federal definition of "processed glass" fit in with California's Universal Waste management scheme?

Federally, processed CRT glass is defined as glass removed from CRTs. (See 71 FR 42929). According to 40 CFR 261.39, processed CRT glass destined for recycling at a CRT glass manufacturer or lead smelter after processing is not solid waste unless it is speculatively accumulated. U.S. EPA allows CRT glass to be processed per the definition of CRT processing found in 260.10. Handlers can receive broken or intact CRTs and intentionally break them or separate broken CRTs, then sort or manage glass removal from these CRTs. The full processing summary can be found in 67 FR 40507 part III(D)(2)(c), "Glass processing and other material recovery". The panel glass can be shipped off-site to a CRT glass manufacturer or sometimes to a smelter or manufacturer of other kinds of glass, assuming the CRT components are being recycled and meet the conditions in 40 CFR part 261.

California defines CRT glass as any glass released or derived from the treatment or breakage of one or more CRTs and includes CRT funnel glass and CRT panel glass. Under California's regulations, CRT glass and CRT funnel glass (which includes the funnel and neck section) destined for reclamation at a CRT glass manufacturer or primary/secondary lead smelter must comply with CRT Glass Universal Waste Standards covered in chapter 23.

How are households regulated?

According to 71 FR 42929, CRTs from households are exempt from federal hazardous waste management requirements, even when they are sent for recycling or disposal. They are exempt from hazardous waste management requirements under 40 CFR 261.4(b)(1). In California, however, a household generator of CRTs is subject to the requirements of a universal waste generator in California Code of Regulations, title 22, section 66273.8.

Adding CRT and CRT Glass to California's Universal Waste Program

Originally, the CRT and CRT Glass waste categories were consolidated under the CRT Materials universal waste category in California regulations. In the Initial Statement of Reasons for Electronic Hazardous Waste Regulations (Department Reference Number R-01-06), DTSC justified the addition of CRT Materials using the criteria set forth in 40 CFR 273.80 and 273.81. In 2009, the Final Regulations for Consolidated Universal Waste Regulations and Authorized Treatment of Electronic Hazardous Waste went into effect. These regulations repealed the previous CRT Materials universal waste category and established CRTs and CRT Glass as separate categories of universal wastes. Seeing that the CRT Materials waste category was adjusted into two different waste

categories, it would be appropriate to ensure the new CRT and CRT Glass categories fit the criteria for 273.81. As discussed below, the seven factors used for CRT Materials still apply to the new categories of CRTs and CRT Glass.

- CRTs and CRT Glass are generated by a wide variety of generators. They are generated in the common household and in virtually every category of business, government, and other entities.
- CRTs and CRT Glass are generated by many industries and a wide variety of sectors of society. They are generated by universities, households, retail stores.
- CRTs and CRT Glass are generated frequently by a large number of generators, but in small amounts. According to summary provided by Assembly Bill 1419 for hazardous waste cathode ray tubes,[3] approximately 200 million pounds of televisions are recycled annually in California. About half of those include CRTs, which means California's e-waste recycling program has generated more than 100 million pounds of residual CRT glass annually since it began operation in 2005. This shows that CRTs and CRT glass are generated in large quantities, however, individual generators generate these wastes sporadically in limited quantities.
- DTSC believes that the universal waste requirements will ensure that CRTs and CRT Glass
  are not mismanaged. DTSC has been managing CRTs and CRT Glass universal wastes for many years and has been effective in ensuring the hazardous components of CRTs and CRT Glass are properly controlled.
- DTSC believes CRTs and CRT Glass are low risk compared to most other hazardous wastes. In fact, most people routinely handle these intact devices on a daily basis without any special precautions. CRTs and CRT Glass are often portable and are routinely carried and moved about without breakage.
- Classifying CRTs and CRT Glass as universal waste has allowed for more collection and consolidation points for handlers to properly collect and manage CRTs and CRT Glass.
- Classifying CRTs and CRT Glass as universal waste has helped improve the implementation and overall compliance of recycling CRTs and CRT Glass. The number of recyclers in California has grown since the regulations were adopted and local governments have developed local collection programs in response to the greater flexibility provided under the universal waste standards.

[3] file:///C:/Users/rrivera2/Downloads/201520160AB1419_Assembly%20Environmental%20Safety%20And%20Toxic%20Materials-.pdf

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.60(a)	The owner or operator of a destination facility (as defined in §273.9) is subject to all applicable requirements of parts 264, 265, 266, 268, 270, and 124 of this chapter, and the notification requirement under section 3010 of RCRA.	66273.60(a) 66261.6(b)	Except as provided in subsections (b) and (c) of this section, the owner or operator of a destination facility (as defined in section 66273.9) is subject to all applicable requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, and the notification requirement pursuant to Health and Safety Code section 25153.6. 66261.6(b) Owners and operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of articles 1 through 12 , 27, 28, and 28.5 of chapters 14 and 15 and any applicable provisions of chapters 16, 18, and 20 and the notification requirements under section 3010 of RCRA, except as provided in subsection (a) of this section.	X				The scope of chapter 21 and its absence from section 66273.60(a) does not make it less stringent because chapter 20, regarding the hazardous waste permit program, is referenced in 66273.60, and the provisions in chapter 20 related to DTSC permit decisions are implemented "pursuant to the procedures in chapter 21." - Chapter 22 was added to reference enforcement and inspection purposes and does not have an equivalent citation. - The Attorney General's Office concurred with DTSC's reasoning via E-mail on 2/19/2019.
273.60(b)	The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled must comply with 40 CFR 261.6(c)(2).					X		State facilities that do not store prior to recycling would be required to follow the requirements discussed in 66273.60(a), because the state regulations do not provide for the lessened standards that the federal regulations do in 273.60(b). US EPA addressed section 261.6(c)(2) in 273.60(b) because US EPA stated in a memo (EPA Policy Regarding Storage Permit Requirements for Off-Loading Hazardous Wastes Directly into a Unit without Prior Storage) that direct transfer into a recycling unit is not storage thus a federal permit for a recycling only facility is not required. However, in California DTSC deleted this language because facilities are required to get a standardized permit for recycling activities. Section 273.60(b) is technically less stringent that California's requirements because facilities would need a state permit, but not a federal permit.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader In Scope	Justification
		66273.60(b)	The owner or operator of a destination facility that recycles a universal waste that is a RCRA hazardous waste by conducting one or more of the management activities described in section 66273.33, subsections (a)(2)(A), (B), (E) and (F), section 66273.33, subsection (b)(3), and/or section 66273.33.5, subsections (a) through (c), may manage that universal waste pursuant to the reduced requirements specified in this chapter for universal waste handlers.	X				Citation explains certain RCRA hazardous wastes can be managed according to the UW requirements in article 3 of chapter 23, however, any other management activities related to universal wastes that are RCRA hazardous waste would require that these destination facilities conduct those activities in accordance with applicable requirements of chapters 14, 15, 16, 18, 20 and 22. - The management requirements are equivalent to 273.33.
		66273.60(c)	The owner or operator of a destination facility that complies with subsection (a) of this section, and that treats and/or recycles a universal waste that is a non-RCRA hazardous waste by conducting one or more of the management activities described in section 66273.72, subsection (b), section 66273.72, subsection (c), section 66273.73, subsection (a)(1)(A) and/or section 66273.73, subsection (b)(1) shall be eligible to store that universal waste prior to treatment of the universal waste in accordance with the reduced requirements specified in this chapter for universal waste handlers provided such storage and accumulation occur in areas designated for universal waste storage in the facility's permit. Facilities authorized to conduct these treatment activities on the effective date of these regulations and operating under permits issued prior to the effective date of these regulations shall request a Class 1 modification to their permits to address the universal waste handling activities and designate the universal waste storage locations. This request for a Class 1 modification shall be made pursuant to section 66270.42, subsection (d) for modifications to facility permits that are not listed in Appendix I of chapter 20 of this division.				X	State citation is broader in scope because it imposes regulations for non-RCRA hazardous waste, which USEPA does not regulate - the described sections in the text are also California only universal wastes.
273.61(a)	The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility or foreign destination.	66273.61(a)	The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility, or a foreign destination.	X				State language achieves same result as federal

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader In Scope	Justification
273.61(b)	The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he must contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility must:	66273.61(b)	The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, the owner or operator shall contact the shipper to notify the shipper of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility shall:	X				State language achieves same result as federal
273.61(b)(1)	Send the shipment back to the original shipper, or	66273.61(b)(1)	Send the shipment back to the original shipper; or	X				State language achieves same result as federal
273.61(b)(2)	If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.	66273.61(b)(2)	If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.	X				State language achieves same result as federal
273.61(c)	If the owner or operator of a destination facility receives a shipment containing hazardous waste that is not a universal waste, the owner or operator of the destination facility must immediately notify the appropriate regional EPA office of the illegal shipment, and provide the name, address, and phone number of the shipper. The EPA regional office will provide instructions for managing the hazardous waste.	66273.61(c)	If the owner or operator of a destination facility receives as universal waste, a shipment containing hazardous waste that is not a universal waste, the owner or operator of the destination facility shall immediately notify the Department of the illegal shipment, and provide the name, address, and telephone number of the shipper. The Department will provide instructions for managing the hazardous waste.	X				Owners or operators only need to contact DTSC and not the EPA because DTSC is authorized by the EPA to administer the base hazardous waste program. Therefore, if anyone tried to illegally ship hazardous waste in an unauthorized location, they would be subject to hazardous waste regulations as enforced by DTSC. It would not be subject to Chapter 23 requirements. Therefore, notification to DTSC in lieu of EPA is sufficient.
273.61(d)	If the owner or operator of a destination facility receives a shipment of non-hazardous, non-universal waste, the owner or operator may manage the waste in any way that is in compliance with applicable federal or state solid waste regulations.	66273.61(d)	If the owner or operator of a destination facility receives as universal waste, a shipment of nonhazardous waste, the owner or operator shall manage the nonhazardous waste in any way that is in compliance with applicable federal, state and local solid waste regulations.	X				State language achieves same result as federal

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.62(a)	The owner or operator of a destination facility must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste received must include the following information:	66273.62(a)	The owner or operator of a destination facility shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document, or other shipping document. The record for each shipment of universal waste received shall include the following information:	X				State language achieves same result as federal
273.62(a)(1)	The name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;	66273.62(a)(1)	The name and address of the universal waste handler, destination facility, or foreign shipper from which the universal waste was sent;	X				State language achieves same result as federal
273.62(a)(2)	The quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats);	66273.62(a)(2)	The quantity of each type of universal waste received (e.g., batteries, thermostats, lamps, electronic devices, CRTs, CRT glass);	X				State language achieves same result as federal
273.62(a)(3)	The date of receipt of the shipment of universal waste.	66273.62(a)(3)	The date of receipt of the shipment of universal waste.	X				State language achieves same result as federal
273.62(b)	The owner or operator of a destination facility must retain the records described in paragraph (a) of this section for at least three years from the date of receipt of a shipment of universal waste.	66273.62(b)	The owner or operator of a destination facility shall retain each record described in subsection (a) of this section for at least three years from the date of receipt of the corresponding shipment of universal waste.	X				State language achieves same result as federal

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.80(a)	Any person seeking to add a hazardous waste or a category of hazardous waste to this part may petition for a regulatory amendment under this subpart and 40 CFR 260.20 and 260.23.	66260.22(a)	Any person seeking to add a hazardous waste or a category of hazardous waste to the universal waste regulations contained in chapter 23 of this division shall petition for a regulatory amendment under this section and Government Code section 11340.6.	X				State language achieves same result as federal - State requirements are not more stringent or broader in scope
273.80(b)	To be successful, the petitioner must demonstrate to the satisfaction of the Administrator that regulation under the universal waste regulations of 40 CFR part 273 is: appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition must include the information required by 40 CFR 260.20(b). The petition should also address as many of the factors listed in 40 CFR 273.81 as are appropriate for the waste or waste category addressed in the petition.	66260.22(b) 66260.22(b)(1) 66260.22(b)(2) 66260.22(b)(3) 66260.22(c) 66260.22(d)	(b) To be successful, the petitioner shall demonstrate to the satisfaction of the Director that regulation under the Universal Waste Rule contained in chapter 23 of this division: (1) is appropriate for the waste or category of waste; (2) will improve management practices for the waste or category of waste; and (3) will improve implementation of the hazardous waste program. (c) The petition shall include the information, in writing, required by Government Code section 11340.6. (d) The petition shall address as many of the factors listed in section 66260.23 as are appropriate for the waste or waste category addressed in the petition.	X				The state regulation appears to require slightly different information to be included in the petition than the federal regulations. Per email communications with US EPA on May 17, 2019, these discrepancies are likely not significant enough to prevent a finding of equivalency.
273.80(c)	The Administrator will evaluate petitions using the factors listed in 40 CFR 273.81. The Administrator will grant or deny a petition using the factors listed in 40 CFR 273.81. The decision will be based on the weight of evidence showing that regulation under 40 CFR part 273 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.	66260.22(e) & 66260.23	The Director will evaluate and grant or deny petitions using the factors listed in section 66260.23 and the petition review process specified in Government Code section 11340.7. The decision will be based on the weight of evidence showing that regulation under chapter 23 of this division is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program. 66260.23 - The Director will evaluate petitions submitted under section 66260.22 using the following factors:	X				State language achieves same result as federal - State requirements are analogous to federal requirements.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.81(a)	The waste or category of waste, as generated by a wide variety of generators, is listed in subpart D of part 261 of this chapter, or (if not listed) a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in subpart C of part 261 of this chapter. (When a characteristic waste is added to the universal waste regulations of this part 273 by using a generic name to identify the waste category (e.g., batteries), the definition of universal waste in §260.10 of this chapter and §273.9 will be amended to include only the hazardous waste portion of the waste category (e.g., hazardous waste batteries).) Thus, only the portion of the waste stream that does exhibit one or more characteristics (i.e., is hazardous waste) is subject to the universal waste regulations of this part 273;	66260.23(a)	The waste or category of waste, as generated by a wide variety of generators, is listed in article 4 of chapter 11 of this division, or if not listed, a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in article 3 of chapter 11 of this division. [When a characteristic waste is added to the universal waste regulations in chapter 23 by using a generic name to identify the waste category (e.g., batteries), the definition of universal waste in section 66273.9 of chapter 23 will be amended to include only hazardous waste portions of the waste category (e.g., hazardous waste batteries).] Thus, only the portion of the waste stream that exhibits one or more characteristics (i.e., is hazardous waste) is subject to the universal waste regulations of chapter 23;	X				State language achieves same result as federal - State requirements are analogous to federal requirements.
273.81(b)	The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments (including, for example, households, retail and commercial businesses, office complexes, very small quantity generators, small businesses, government organizations, as well as large industrial facilities);	66260.23(b)	The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments (including for example, households, retail and commercial businesses, office complexes, conditionally exempt small quantity generators, small businesses, governmental organizations, as well as large industrial facilities);	X				State language achieves same result as federal - State requirements are analogous to federal requirements.
273.81(c)	The waste or category of waste is generated by a large number of generators (e.g., more than 1,000 nationally) and is frequently generated in relatively small quantities by each generator;	66260.23(c)	The waste or category of waste is generated by a large number of generators and is frequently generated in relatively small quantities by each generator;	X				State language achieves same result as federal - State requirements are identical to federal language
273.81(d)	Systems to be used for collecting the waste or category of waste (including packaging, marking, and labeling practices) would ensure close stewardship of the waste;	66260.23(d)	Systems to be used for collecting the waste or category of waste (including packaging, marking, and labeling practices) would ensure close stewardship of the waste;	X				State language achieves same result as federal - Identical language

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.81(e)	The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner (e.g., waste management requirements appropriate to be added to 40 CFR 273.13, 273.33, and 273.52; and/or applicable Department of Transportation requirements) would be protective of human health and the environment during accumulation and transport;	66260.23(e)	The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner (e.g., waste management requirements appropriate to be added to sections 66273.33, 66273.33.5, and 66273.52; and/or applicable Department of Transportation requirements) would be protective of human health and the environment during accumulation and transport;	X				State language achieves same result as federal - State requirements are analogous to federal requirements.
273.81(f)	Regulation of the waste or category of waste under 40 CFR part 273 will increase the likelihood that the waste will be diverted from non-hazardous waste management systems (e.g., the municipal waste stream, non-hazardous industrial or commercial waste stream, municipal sewer or stormwater systems) to recycling, treatment, or disposal in compliance with Subtitle C of RCRA.	66260.23(f)	Regulation of the waste or waste category under chapter 23 will increase the likelihood that the waste will be diverted from non-hazardous waste management systems (e.g., the municipal wastestream, non-hazardous industrial or commercial wastestream, municipal sewer or stormwater systems) to recycling, treatment or disposal in compliance with this division and division 20 of the California Health and Safety Code;	X				State language achieves same result as federal - State requirements are analogous to federal requirements.
273.81(g)	Regulation of the waste or category of waste under 40 CFR part 273 will improve implementation of and compliance with the hazardous waste regulatory program; and/or	66260.23(g)	Regulation of the waste or category of waste under chapter 23 will improve implementation of and compliance with the hazardous waste regulatory program; and/or;	X				State language achieves same result as federal - State requirements are analogous to federal requirements.
273.81(h)	Such other factors as may be appropriate.	66260.23(h)	Such other factors as may be appropriate.	X				State language achieves same result as federal - Identical language

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.1(a)	This part establishes requirements for managing the following:	66273.1(a)		X				State language achieves same result as federal
273.1(a)(1)	Batteries as described in 40 CFR 273.2;	66273.1(a)(1)	Batteries, as described in section 66273.2, subsection (a);	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste - Federal citation references all of 40 CFR 273.2, however, state only references section 66273.2(a) because the section designates the specific categories of universal wastes that are subject to regulation under chapter 23 - 66273.2(a) applies to the category of batteries that would be covered under chapter 23 (universal waste)
273.1(a)(2)	Pesticides as described in §273.3;	N/A	Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
	Not in federal regulations	66273.1(a)(2)	Electronic devices, as described in section 66273.3, subsection (a);	X				See electronic device justification document
273.1(a)(3)	Mercury-containing equipment as described in §273.4; and	66273.1(a)(3)	Mercury-containing equipment, as described in section 66273.4, subsection (a);			X		State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, where as, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - See Initial Statement of Reasons for Authorized Treatment of Electronic Hazardous Waste - Final Regulations - Control Reference Number R-2006-02. It states: The proposed regulations include changes to make the current regulations more structurally consistent with the federal MCE regulations. DTSC cannot make the regulations entirely consistent with the federal MCE universal waste regulations without expanding the substantive scope of California's current universal waste rule. At the present time, DTSC has not fully determined that the broader federal MCE universal waste regulations are adequately protective of human health and the environment. Therefore at this time, DTSC is not expanding the substantive scope of its mercury-containing universal waste regulations to match the scope of the federal regulations. DTSC's application of more stringent requirements is authorized by 40 Code of Federal Regulations section 271.1(i)(1) and Health and Safety Code section 25159.5. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition and an analysis of the criteria of 22 CCR 273.81 for petitions to include other wastes.
273.1(a)(4)	Lamps as described in §273.5.	66273.1(a)(4)	Lamps, as described in section 66273.5, subsection (a) (including, but not limited to, M003 wastes);	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
	Not in federal regulations	66273.1(a)(5)	Cathode ray tubes, as described in section 66273.6, subsection (a);	X				See CRT & CRT Glass justification document

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
	Not in federal regulations	66273.1(a)(6)	Cathode ray tube glass, as described in section 66273.7, subsection (a); and	X				See CRT & CRT Glass justification document
	Not in federal regulations	66273.1(a)(7)	Aerosol cans, as specified in Health and Safety Code section 25201.16.	X				See aerosol cans justification document
273.1(b)	This part provides an alternative set of management standards in lieu of regulation under 40 CFR parts 260 through 272.	66273.1(b)	This chapter provides an alternative set of management standards in lieu of regulation as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division. The alternative management standards of articles 1 through 3 of this chapter do not apply to destination facilities, as defined in section 66273.9, except as otherwise specified in section 66273.60, subsections (b) or (c).	X				State language achieves same result as federal - both sections explain that there are alternative management standards compared to the full RCRA standards found in the federal and state regulations - 40 CFR parts 260-272 are the federal RCRA regulations that govern hazardous waste identification, classification, generation, management and disposal. - Chapters 10-16, 18, and 20-22 are found in Title 22, Division 4.5. These are the state regulations for environmental health standards for the management of hazardous waste, which are functionally analogous to the federal RCRA regulations.
273.2(a) & 273.2 (a)(1)	*Batteries covered under 40 CFR part 273.* (1) The requirements of this part apply to persons managing batteries, as described in §273.9, except those listed in paragraph (b) of this section.	66273.2(a)	Batteries covered pursuant to chapter 23. The requirements of this chapter apply to persons managing batteries, as defined in section 66273.9, except those listed in subsection (b) of this section.	X				Overall, State regulations are equivalent to Federal - State language achieves same result as federal - Does not increase regulated community or waste stream - Federal and State require the similar management options because they cover all batteries except those listed in paragraphs (b) and subsections (b). Paragraph (b) and subsection (b) both list the same exceptions: 1) batteries not yet wastes, (2) batteries that are not hazardous, and (3) spent acid batteries that are not managed as universal wastes. - One difference is that under the federal rule, handlers can manage lead-acid batteries either as universal waste or 40 CFR part 266, subpart G, whereas in state regulations, they are not a universal waste, but instead managed at article 7, chapter 16 of title 22 of state regulations.
273.2(a)(2)	Spent lead-acid batteries which are not managed under 40 CFR part 266, subpart G, are subject to management under this part.	66273.2(b)(1)(A)	Automotive-type spent lead-acid storage batteries. Automotive-type spent lead-acid storage batteries shall be managed pursuant to article 7 of chapter 16 of this division. Small sealed lead-acid storage batteries are not automotive-type lead-acid storage batteries.			X		Overall, State regulation is more stringent - Under the federal rule, handlers can manage lead-acid batteries either as universal waste or 40 CFR part 266, subpart G, whereas in state regulations, they are not a universal waste, but instead managed under article 7 of chapter 16 (hazardous waste).
273.2(b)	*Batteries not covered under 40 CFR part 273.* The requirements of this part do not apply to persons managing the following batteries:	66273.2(b) & 66273.2(b)(1)	Batteries not covered pursuant to this chapter. (1) State Regulated Batteries. The requirements of this chapter do not apply to persons managing the following batteries:	X				State language achieves same result as federal - Does not increase regulated community or waste stream
273.2(b)(1)	Spent lead-acid batteries that are managed under 40 CFR part 266, subpart G.	66273.2(b)(1)(A)	Automotive-type spent lead-acid storage batteries. Automotive-type spent lead-acid storage batteries shall be managed pursuant to article 7 of chapter 16 of this division. Small sealed lead-acid storage batteries are not automotive-type lead-acid storage batteries.			X		Overall, State regulations is more stringent - Under the federal rule, handlers can manage lead-acid batteries either as universal waste or 40 CFR part 266, subpart G, whereas in state regulations, they are not a universal waste, but instead managed under article 7 of chapter 16 (hazardous waste).
273.2(b)(2)	Batteries, as described in §273.9, that are not yet wastes under part 261 of this chapter, including those that do not meet the criteria for waste generation in paragraph (c) of this section.	66273.2(b)(1)(B)	Batteries that are not yet wastes pursuant to chapter 11 of this division, including those that do not meet the criteria for waste generation in subsection (c) of this section.	X				State language achieves same result as federal - Does not increase regulated community or waste stream - Not more stringent because management options are the same

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.2(b)(3)	Batteries, as described in §273.9, that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in part 261, subpart C of this chapter.	66273.2(b)(1)(C)	Batteries that do not exhibit a characteristic of a hazardous waste as set forth in article 3 of chapter 11 of this division.	X				State language achieves same result as federal - Does not increase regulated community or waste stream - Not more stringent because management options are the same
		66273.2(b)(2)	Federally Regulated Batteries.	X				66273.2(b)(2) was added pursuant to Health and Safety Code section 25219.1, subdivision (a). Under this provision, batteries regulated federally pursuant to the federal battery management act are excluded from universal waste battery requirements. Specifically, this section excludes persons who collect, store or transport batteries subject to subsection (a) of section 104 [42 U.S.C. § 14323(a)] of the federal Mercury-Containing and Rechargeable Battery Management Act (42 U.S.C. § 14301, et. seq.), and placing such persons on notice that they must conduct those specific activities pursuant to applicable 40 Code of Federal Regulations part 273 standards. This requirement is necessary to effectuate the purpose of Health and Safety Code section 25219.1, subdivision (a) and, by so doing, prevent federal pre-emption issues related to state universal waste battery requirements.
		66273.2(b)(2)(A)	The requirements of this chapter do not apply to persons collecting, storing or transporting batteries that are subject to subsection (a) of section 104 [42 U.S.C. §14323(a)] of the federal Mercury-Containing and Rechargeable Battery Management Act (42 U.S.C. §14301, et. seq.). The Act requires that the collection, storage, and transportation of such batteries be regulated pursuant to applicable 40 Code of Federal Regulations part 273 standards.	X				66273.2(b)(2) was added pursuant to Health and Safety Code section 25219.1, subdivision (a). Under this provision, batteries regulated federally pursuant to the federal battery management act are excluded from universal waste battery requirements. Specifically, this section excludes persons who collect, store or transport batteries subject to subsection (a) of section 104 [42 U.S.C. § 14323(a)] of the federal Mercury-Containing and Rechargeable Battery Management Act (42 U.S.C. § 14301, et. seq.), and placing such persons on notice that they must conduct those specific activities pursuant to applicable 40 Code of Federal Regulations part 273 standards. This requirement is necessary to effectuate the purpose of Health and Safety Code section 25219.1, subdivision (a) and, by so doing, prevent federal pre-emption issues related to state universal waste battery requirements.
273.2(c)	*Generation of waste batteries.* (1) A used battery becomes a waste on the date it is discarded (e.g., when sent for reclamation).	66273.2(c) 66273.2(c)(1)	Generation of waste batteries. (1) A used battery becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				State language achieves same result as federal - Does not increase regulated community or waste stream
		66273.2(c)(2)	Unused batteries.	X				
273.2(c)(2)	An unused battery becomes a waste on the date the handler decides to discard it.	66273.2(c)(2)(A)	An unused battery that is not a retrograde material becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				Excluding retrograde materials, which are hazardous wastes by definition, means that this comparison is equivalent.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.2(c)(2)(B)	An unused battery that is a retrograde material becomes a waste on the date that it becomes a recyclable material pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10.			X		A retrograde material, as defined in CCR 66260.10, is encompassed in the definition of recyclable material in CCR 66260.10, which is a hazardous waste, and is more stringent than the federal definition of solid waste. According to definition of a recyclable material in CCR 66260.10 subsection (e), a recyclable material can be any retrograde material that has not been used, distributed or reclaimed through treatment by the original manufacturer or owner by the later of the following dates: (1) one year after the date when the material became a retrograde material; (2) if the material has been returned to the original manufacturer, one year after the material is returned to the original manufacturer. It is not contingent on being "discarded".
273.3(a) - (d)(2) *Entire paragraph*	Pesticides covered under this part 273. The requirements of this part apply to persons managing pesticides, as described in §273.9, meeting the following conditions, except those listed in paragraph (b) of this section:		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
		66273.3(a)	Electronic devices covered pursuant to chapter 23.	X				See universal waste - electronic devices justification
		66273.3(a)(1)	The requirements of this chapter apply to persons managing electronic devices, as defined in section 66273.9, except those listed in subsection (b) of this section.	X				See universal waste - electronic devices justification
		66273.3(a)(2)	Discarded electronic devices that are hazardous solely because the device exhibits the characteristic of toxicity specified in section 66261.24 and/or are listed in article 4.1 of chapter 11 of this division may be managed as a universal waste.	X				See universal waste - electronic devices justification
		66273.3(b)	Electronic devices not covered pursuant to this chapter. The requirements of this chapter do not apply to persons managing the following electronic devices:	X				See universal waste - electronic devices justification
		66273.3(b)(1)	Electronic devices that are not yet wastes pursuant to chapter 11 of this division. Subsection (c) of this section describes when electronic devices become wastes.	X				See universal waste - electronic devices justification
		66273.3(b)(2)	Electronic devices that do not exhibit a characteristic of a hazardous waste as set forth in article 3 of chapter 11 and that are not otherwise identified as hazardous waste pursuant to chapter 11 of this division.	X				See universal waste - electronic devices justification

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.3(b)(3)	Electronic devices that exhibit any characteristic of a hazardous waste other than the characteristic of toxicity. Such electronic devices shall be managed as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.	X				See universal waste - electronic devices justification
		66273.3(b)(4)	Electronic devices that are destined for recycling (or are recycled) by being "used in a manner constituting disposal," as described in section 66266.20, or that are destined for disposal (or are disposed) to a class I landfill. Such electronic devices shall be managed as hazardous waste pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.	X				See universal waste - electronic devices justification
		66273.3(b)(5)	Electronic devices that are managed as hazardous waste pursuant to chapters 10 through 16, 18, and 20 through 22 of this division;	X				See universal waste - electronic devices justification
		66273.3(b)(6)	Electronic devices that were previously identified as waste pursuant to chapter 11, but are no longer identified as a waste (e.g., a discarded electronic device that is refurbished and is returned to service).	X				See universal waste - electronic devices justification
		66273.3(c)	Generation of waste electronic devices.	X				See universal waste - electronic devices justification
		66273.3(c)(1)	A used electronic device becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				See universal waste - electronic devices justification
		66273.3(c)(2)	Unused electronic devices.	X				See universal waste - electronic devices justification
		66273.3(c)(2)(A)	An unused electronic device that is not a retrograde material becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				See universal waste - electronic devices justification
		66273.3(c)(2)(B)	An unused electronic device that is a retrograde material becomes a waste on the date that it becomes a recyclable material pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10.	X				See universal waste - electronic devices justification
		66273.3(d)	A respondent in an action to enforce regulations implementing this division who claims that an electronic device is not a waste bears the burden of demonstrating that there is a known market or disposition for its use as an electronic device.	X				See universal waste - electronic devices justification

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.4(a)	*Mercury-containing equipment covered under this part 273.* The requirements of this part apply to persons managing mercury-containing equipment, as described in §273.9, except those listed in paragraph (b) of this section.	66273.4(a)	Mercury-containing equipment covered pursuant to chapter 23. Except as provided in subsection (b) of this section, the requirements of this chapter apply to persons managing the following mercury-containing equipment:			X		State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - See Initial Statement of Reasons for Authorized Treatment of Electronic Hazardous Waste - Final Regulations - Control Reference Number R-2006-02. It states: The proposed regulations include changes to make the current regulations more structurally consistent with the federal MCE regulations. DTSC cannot make the regulations entirely consistent with the federal MCE universal waste regulations without expanding the substantive scope of California's current universal waste rule. At the present time, DTSC has not fully determined that the broader federal MCE universal waste regulations are adequately protective of human health and the environment. Therefore at this time, DTSC is not expanding the substantive scope of its mercury-containing universal waste regulations to match the scope of the federal regulations. DTSC's application of more stringent requirements is authorized by 40 Code of Federal Regulations section 271.1(i)(1) and Health and Safety Code section 25159.5. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition and an analysis of the criteria of 22 California Code of Regulations 273.81 for petitions to include other wastes.
		66273.4(a)(1)	Thermostats, as defined in section 66273.9.			X		See justification for 66273.4(a). State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition
		66273.4(a)(2)	Mercury switches			X		See justification for 66273.4(a). State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition
		66273.4(a)(2)(A)	Mercury-containing motor vehicle light switches, as defined in section 66273.9, that meet listing description M001 in section 66261.50, motor vehicles that contain such switches, and portions of motor vehicles that contain such switches;			X		See justification for 66273.4(a). State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.4(a)(2)(B)	Non-automotive mercury switches, as defined in section 66273.9, that meet listing description M002 in section 66261.50, and products that contain such switches.			X		See justification for 66273.4(a). State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition
		66273.4(a)(3)	Dental amalgam, as defined in section 66273.9.			X		Dental amalgams fall outside the scope of the federal MCE definition. See the attached mercury-containing equipment justification document for analysis on how dental amalgams were added to California's MCE definition, and how they meet the factors for adding a waste in 40 CFR 273.81. State regulations are more stringent because dental amalgams are generally not regulated on the federal level because they fall under the very small quantity generator exception. Under state regulations, if the amalgam is found to be hazardous, regardless of the amount, it would be subject to universal waste requirements.
		66273.4(a)(4)	Pressure or vacuum gauges, as defined in section 66273.9.			X		See justification for 66273.4(a). State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition
		66273.4(a)(5)	Mercury-added novelties, as defined in section 66273.9 that meet listing description M004 in section 66261.50.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.4(a)(6)	Mercury counterweights and dampers, as defined in section 66273.9, and products containing mercury counterweights and dampers.			X		See justification for 66273.4(a) State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition
		66273.4(a)(7)	Thermometers, as defined in section 66273.9.			X		See justification for 66273.4(a) State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition
		66273.4(a)(8)	Dilators and weighted tubing, as defined in section 66273.9.			X		See justification for 66273.4(a) State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition
		66273.4(a)(9)	Mercury-containing rubber flooring, as defined in section 66273.9.			X		Mercury containing rubber flooring falls outside the federal definition of MCE. See the attached mercury-containing equipment justification document for analysis on how mercury containing rubber flooring meets the factors for adding a waste in 40 CFR 273.81.
		66273.4(a)(10)	Gas flow regulators, as defined in section 66273.9.			X		See justification for 66273.4(a) State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. - Also see Mercury-Containing Device justification document for analysis on how California's definition compares with the federal MCE definition
273.4(b)	*Mercury-containing equipment not covered under this part 273.* The requirements of this part do not apply to persons managing the following mercury-containing equipment:	66273.4(b)	Mercury-containing equipment not covered pursuant to this chapter. The requirements of this chapter do not apply to persons managing the following mercury-containing equipment:	X				State and Federal citations have the same requirements - Does not increase regulated community or waste stream - State language achieves same result as federal
273.4(b)(1)	Mercury-containing equipment that is not yet a waste under part 261 of this chapter. Paragraph (c) of this section describes when mercury-containing equipment becomes a waste;	66273.4(b)(1)	Mercury-containing equipment that is not yet a waste pursuant to chapter 11 of this division. Subsection (c) of this section describes when mercury-containing equipment becomes a waste.	X				State and Federal citations have the same requirements - Does not increase regulated community or waste stream - State language achieves same result as federal

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.4(b)(2)	Mercury-containing equipment that is not a hazardous waste. Mercury-containing equipment is a hazardous waste if it exhibits one or more of the characteristics identified in part 261, subpart C of this chapter or is listed in part 261, subpart D of this chapter; and	66273.4(b)(2)	Mercury-containing equipment that does not exhibit a characteristic of a hazardous waste as set forth in article 3 of chapter 11 and is not listed in article 4.1 of chapter 11 of this division.	X				State and Federal citations have the same requirements - Does not increase regulated community or waste stream - State language achieves same result as federal
273.4(b)(3)	Equipment and devices from which the mercury-containing components have been removed.	66273.4(b)(3)	Mercury-containing equipment from which the mercury-containing components have been removed (e.g., motor vehicles, motor vehicle switches, novelties). (If it exhibits a characteristic of a hazardous waste in article 3 of chapter 11, such equipment is regulated as a hazardous waste pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.)	X				State language achieves same result as federal Both citations refer to MCEs regulated federally and by the state
		66273.4(b)(4)	Switches that do not contain mercury. (If they exhibit a characteristic of a hazardous waste in article 3 of chapter 11, such switches are regulated as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.)	X				State language achieves same result as federal State citation refer to an MCE regulated federally and by the state
		66273.4(b)(5)	Waste mercury-containing equipment other than thermostats, mercury-added novelties containing no liquid mercury, and mercury-containing rubber flooring, that is destined for disposal or is disposed to a class I landfill. Such mercury-containing equipment is regulated as a hazardous waste pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.	X				State language achieves same result as federal State citation refer to an MCE regulated federally and by the state
		66273.4(b)(6)	Waste motor vehicles, portions of motor vehicles, appliances, and portions of appliances from which all mercury light switches have not been removed (other than switches that cannot be removed due to accidental damage to the vehicle), and that are crushed, baled, sheared, or shredded. (If they exhibit a characteristic of a hazardous waste in article 3 of chapter 11, such motor vehicles, portions of motor vehicles, appliances, or portions of appliances are regulated as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.)	X				State language achieves same result as federal - mercury-containing motor vehicle switches and any motor vehicle or portion of a motor vehicle that contains such switches are California M001 listed hazardous wastes in 66261.50.
		66273.4(b)(7)	Empty used dental-amalgam capsules. (If they exhibit a characteristic of a hazardous waste in article 3 of chapter 11, such dental-amalgam capsules are regulated as hazardous wastes pursuant to chapters 10 through 22 of this division.)	X				State language achieves same result as federal - State language does not expand the scope of the federal regulation. It provides conditions for when mercury containing equipment can be managed under chapter 23 or existing hazardous waste management requirements (i.e., under chapters 10 through 16, 18, 20 through 22).

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.4(b)(8)	Waste thermometers that do not use the expansion and contraction of a column of mercury to measure temperature. (If they exhibit a characteristic of a hazardous waste in article 3 of chapter 11, such thermometers are regulated as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.)	X				State language achieves same result as federal - The condition for management of thermometers as universal wastes (that the thermometer must "use the expansion and contraction of a column of mercury to measure temperature") is intended to exclude thermometers whose only mercury is contained in a button-cell battery. Button-cell batteries, when discarded, are already hazardous wastes under existing criteria. As such, they may already be managed as universal wastes under chapter 23.
273.4(c) & 273.4(a)(1)	*Generation of waste mercury-containing equipment.* (1) Used mercury-containing equipment becomes a waste on the date it is discarded.	66273.4(c) & 66273.4(c)(1)	Generation of waste mercury-containing equipment. (1) Used mercury-containing equipment becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation) or, for M001 portions of motor vehicles, when the M001 portion is first removed from the motor vehicle.	X				State and Federal citations have the same requirements M001 covers mercury switches found in vehicles. Most vehicles are so massive, relative to the weight of the mercury in their switches, that they do not exceed mercury concentration thresholds for classification as hazardous wastes. This is because the thresholds apply to the entire vehicle, not just to the switch itself. These regulations designate discarded mercury switches, and discarded vehicles that contain them, as hazardous wastes, regardless of the total mass of the vehicle. Vehicles and portions of vehicles from which switches have not been removed are also hazardous wastes under this listing. To avoid regulating intact vehicles as hazardous wastes, a vehicle that contains mercury switches is considered generated as a listed hazardous waste only when someone decides to crush, bale, shear, or shred it. - This being said, the switches would be removed from the vehicle (thus waste being generated) when the vehicle is going to be treated/recycled (crush, baled, etc.). This is different from when the vehicle could have been discarded. That is why the state added the language to the citation in order to add clarity for when waste is generated. - This would not make the citation more stringent. It would still be equivalent.
273.4(c)(2)	Unused mercury-containing equipment becomes a waste on the date the handler decides to discard it.	66273.4(c)(2) 66273.4(c)(2)(A)	Unused mercury-containing equipment Unused mercury-containing equipment that is not a retrograde material becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				Excluding retrograde materials, which are hazardous wastes by definition, means that this comparison is equivalent.
		66273.4(c)(2)(B)	Unused mercury-containing equipment that is a retrograde material becomes a waste on the date that it becomes a recyclable material pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10.			X		A retrograde material, as defined in CCR 66260.10, is encompassed in the definition of recyclable material in CCR 66260.10, which is a hazardous waste, and is more stringent than the federal definition of solid waste. According to definition of a recyclable material in CCR 66260.10 subsection (e), a recyclable material can be any retrograde material that has not been used, distributed or reclaimed through treatment by the original manufacturer or owner by the later of the following dates: (1) one year after the date when the material became a retrograde material; (2) if the material has been returned to the original manufacturer, one year after the material is returned to the original manufacturer. It is not contingent on being "discarded".

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.4(c)(3)	A motor vehicle from which any mercury-containing light switches have not been removed becomes a waste on the date the decision is made to crush, bale, shear, or shred it.			X		According to 70 FR 45507, "light switches" in automobiles are included under the federal definition for mercury-containing equipment. So they could be managed under the federal universal waste rule. However, there is no specific citation analogous to 66273.4(c)(3). - 66273.4(c)(3) specifies that a listed hazardous waste is generated not when a vehicle that contains mercury switches is discarded, but when the owner decides to crush it for transport, bale, or shred it for recycling. Because the state rule is not contingent on it being discarded to become a waste, the state rule is more stringent.
		66273.4(c)(4)	Dental-amalgam particles contained in reusable chair side traps, reusable vacuum pump filters, and dental-amalgam separators become wastes on the date they are removed from these traps, filters, and separators.			X		See mercury-containing equipment justification document for analysis on dental amalgams
		66273.4(c)(5)	An unused mercury counterweight or damper, or an unused product containing one or more mercury counterweights or dampers, becomes a waste on the date the decision is made to discard it.	X				State citation says counterweights or dampers become waste when decision is made to discard it, which is equivalent to federal regulations, which also state MCE becomes a waste when decision is made to discard it.
273.5(a)	*Lamps covered under this part 273.* The requirements of this part apply to persons managing lamps as described in §273.9, except those listed in paragraph (b) of this section.	66273.5(a)	Lamps covered pursuant to chapter 23. Except as provided in subsection (b) of this section, the requirements of this chapter apply to persons managing the following:	X				State language achieves same result as federal - Does not increase regulated community or waste stream - State citation has the same stated requirement as the federal regulation
		66273.5(a)(1)	Lamps, as defined in section 66273.9, that exhibit a characteristic of a hazardous waste, as set forth in article 3 of chapter 11 of this division;	X				Both federal and state have equivalent characteristics for lamps.
		66273.5(a)(2)	Mercury-added lamps, as defined in section 66273.9, that meet listing description M003 in section 66261.50; and/or	X				Both federal and state have equivalent characteristics for lamps.
		66273.5(a)(3)	Products that contain lamps and/or mercury-added lamps.	X				Both federal and state have equivalent characteristics for lamps.
273.5(b)	*Lamps not covered under this part 273.* The requirements of this part do not apply to persons managing the following lamps:	66273.5(b)	Lamps not covered pursuant to this chapter. The requirements of this chapter do not apply to persons managing the following:	X				State language achieves same result as federal
273.5(b)(1)	Lamps that are not yet wastes under part 261 of this chapter as provided in paragraph (c) of this section.	66273.5(b)(1)	Lamps that are not yet wastes pursuant to chapter 11 of this division as provided in subsection (c) of this section.	X				State language achieves same result as federal
273.5(b)(2)	Lamps that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in part 261, subpart C of this chapter.	66273.5(b)(2)	Lamps that do not exhibit a characteristic of a hazardous waste as set forth in article 3 of chapter 11 of this division and do not contain mercury (i.e., lamps that do not meet the listing description for M003 wastes in section 66261.50).				X	The M003 listing covers all mercury-containing lamps, regardless of whether they exhibit a hazardous waste characteristic. State citation is regulating lamps that do not exhibit characteristics set forth in article 3 of chapter 11 & do not contain mercury. - Some of the hazardous wastes covered under the M003 listing might not be covered under part 261, subpart C. - State citation covers a wider range of lamps making this citation broader in scope.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.5(b)(3)	Lamps which are destined for disposal or are disposed to a class I landfill. Such lamps are regulated as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.			X		State regulations manage these lamps as hazardous waste and not universal waste making it more stringent than federal regulations, which manage them as universal waste.
		66273.5(b)(4)	Vehicles that contain mercury-added lamps, unless such vehicles exhibit a characteristic of a hazardous waste, as set forth in article 3 of chapter 11 of this division.			X		Federal regulations do not regulate waste motor vehicles that contain mercury switches as hazardous waste. The mercury-switches are managed as hazardous waste, but the rest of the vehicle is usually considered scrap metal or fluff.
		66273.5(b)(5)	Waste motor vehicles from which all mercury-added lamps have not been removed that are crushed, baled, sheared, or shredded. (If they exhibit a characteristic of a hazardous waste in article 3 of chapter 11, such motor vehicles are regulated as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division.)			X		Federal regulations do not regulate waste motor vehicles that contain mercury switches as hazardous waste. The mercury-switches are managed as hazardous waste, but the rest of the vehicle is usually considered scrap metal or fluff.
273.5(c)	*Generation of waste lamps.* (1) A used lamp becomes a waste on the date it is discarded.	66273.5(c) 66273.5(c)(1)	Generation of waste lamps. (1) A used lamp becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				State language achieves same result as federal
		66273.5(c)(2)	Unused lamps.	X				
273.5(c)(2)	An unused lamp becomes a waste on the date the handler decides to discard it.	66273.5(c)(2)(A)	An unused lamp that is not a retrograde material becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				Excluding retrograde materials, which are hazardous wastes by definition, means that this comparison is equivalent.
		66273.5(c)(2)(B)	An unused lamp that is a retrograde material becomes a waste on the date that it becomes a recyclable material pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10.			X		A retrograde material, as defined in CCR 66260.10, is encompassed in the definition of recyclable material in CCR 66260.10, which is a hazardous waste, and is more stringent than the federal definition of solid waste. According to definition of a recyclable material in CCR 66260.10 subsection (e), a recyclable material can be any retrograde material that has not been used, distributed or reclaimed through treatment by the original manufacturer or owner by the later of the following dates: (1) one year after the date when the material became a retrograde material; (2) if the material has been returned to the original manufacturer, one year after the material is returned to the original manufacturer. It is not contingent on being "discarded".
		66273.6(a)	CRTs covered pursuant to chapter 23. The requirements of this chapter apply to CRTs, as defined in section 66273.9, except those listed in subsection (b) of this section.	X				See CRT and CRT Glass justification document
		66273.6(a)(1)	CRTs that are treated pursuant to subsection (c) of section 66273.72 or section 66273.73 of this chapter; and	X				See CRT and CRT Glass justification document

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader In Scope	Justification
		66273.6(a)(2)	CRTs destined for reclamation at a CRT glass manufacturer or primary or secondary lead smelter.	X				See CRT and CRT Glass justification document
		66273.6(b)	CRTs not covered pursuant to this chapter. The requirements of this chapter do not apply to the following CRTs:	X				See CRT and CRT Glass justification document
		66273.6(b)(1)	CRTs that are not yet wastes pursuant to chapter 11 as provided in subsection (c) of this section;	X				See CRT and CRT Glass justification document
		66273.6(b)(2)	CRTs that do not exhibit a characteristic of a hazardous waste as set forth in article 3 of chapter 11 of this division;	X				See CRT and CRT Glass justification document
		66273.6(b)(3)	CRTs that are destined for recycling (or are recycled) by being "used in a manner constituting disposal," as described in section 66266.20. Such CRTs shall be managed as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division;	X				See CRT and CRT Glass justification document
		66273.6(b)(4)	Except as otherwise provided in section 66273.72 of this chapter, CRTs that are destined for disposal (or are disposed) to a class I landfill. Such CRTs shall be managed as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division;	X				See CRT and CRT Glass justification document
		66273.6(b)(5)	CRTs that are managed as hazardous waste pursuant to chapters 10 through 16, 18, and 20 through 22 of this division;	X				See CRT and CRT Glass justification document
		66273.6(b)(6)	CRTs that were previously wastes pursuant to chapter 11 of this division, but are no longer wastes (e.g., a discarded CRT that is refurbished and is returned to service).	X				See CRT and CRT Glass justification document
		66273.6(c)	Generation of waste CRTs. A CRT becomes a waste on the date when the earlier of the following occurs:	X				See CRT and CRT Glass justification document
		66273.6(c)(1)	The owner discards the CRT; or	X				See CRT and CRT Glass justification document
		66273.6(c)(2)	The CRT is physically cracked, broken, or shattered.	X				See CRT and CRT Glass justification document
		66273.6(c)(3)	Unused CRTs.	X				See CRT and CRT Glass justification document
		66273.6(c)(3)(A)	An unused CRT that is not a retrograde material becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				See CRT and CRT Glass justification document

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.6(c)(3)(B)	An unused CRT that is a retrograde material becomes a waste on the date that it becomes a recyclable material pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10.			X		See CRT and CRT Glass justification document
		66273.7(a)	CRT glass covered pursuant to chapter 23. The requirements of this chapter apply to CRT glass, as defined in section 66273.9, except CRT glass listed in subsection (b) of this section.	X				See CRT and CRT Glass justification document
		66273.7(a)(1)	CRT glass that is further treated pursuant to section 66273.73 of this chapter;	X				See CRT and CRT Glass justification document
		66273.7(a)(2)	CRT glass that is destined for reclamation at a CRT glass manufacturer or primary or secondary lead smelter;	X				See CRT and CRT Glass justification document
		66273.7(a)(3)	CRT panel glass that is destined for disposal in a CRT panel glass approved landfill; and	X				See CRT and CRT Glass justification document
		66273.7(a)(4)	CRT funnel glass that is destined for reclamation at a CRT glass manufacturer or primary or secondary lead smelter.	X				See CRT and CRT Glass justification document
		66273.7(b)	CRT glass not covered pursuant to this chapter. The requirements of this chapter do not apply to the following CRT glass:	X				See CRT and CRT Glass justification document
		66273.7(b)(1)	CRT glass that is not yet a waste pursuant to chapter 11 of this division as provided in subsection (c) of this section;	X				See CRT and CRT Glass justification document
		66273.7(b)(2)	CRT glass that does not exhibit a characteristic of a hazardous waste as set forth in article 3 of chapter 11 of this division;	X				See CRT and CRT Glass justification document
		66273.7(b)(3)	CRT glass that is destined for recycling (or is recycled) by being "used in a manner constituting disposal," as described in section 66266.20. Such CRT glass shall be managed as a hazardous waste pursuant to chapters 10 through 16, 18, and 20 through 22 of this division; and	X				See CRT and CRT Glass justification document
		66273.7(b)(4)	Except as otherwise provided in section 66273.75 of this chapter, CRT glass that is destined for disposal (or is disposed) to a class I landfill. Such CRT glass shall be managed as a hazardous waste pursuant to chapters 10 through 16, 18, and 20 through 22 of this division; and	X				See CRT and CRT Glass justification document
		66273.7(b)(5)	CRT glass that is managed as a hazardous waste pursuant to chapters 10 16, 18, and 20 through 22 of this division.	X				See CRT and CRT Glass justification document

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.7(c)	Generation of waste CRT glass.	X				See CRT and CRT Glass justification document
		66273.7(c)(1)	CRT glass becomes a waste on the date when CRT glass is released or derived from a CRT or a CRT device.	X				See CRT and CRT Glass justification document
		66273.7(c)(2)	Unused CRT glass.	X				See CRT and CRT Glass justification document
		66273.7(c)(2)(A)	Unused CRT glass that is not a retrograde material becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation).	X				See CRT and CRT Glass justification document
		66273.7(c)(2)(B)	Unused CRT glass that is a retrograde material becomes a waste on the date that it becomes a recyclable material pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10.			X		See CRT and CRT Glass justification document
273.8(a)	Persons managing the wastes listed below may, at their option, manage them under the requirements of this part:		No analogous citation.			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.
273.8(a)(1)	Household wastes that are exempt under §261.4(b)(1) of this chapter and are also of the same type as the universal wastes defined at §273.9; and/or	66273.8(a)	Household universal waste generator exemption. A person who maintains a household, as defined in section 66273.9, and who produces universal waste derived from that household, is a generator, as defined in section 66273.9, of household universal waste. Such a generator is exempt from the requirements of this chapter applicable to a universal waste handler, as defined in section 66273.9, with respect to the management of that generator's household universal waste, provided that:			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.
		66273.8(a)(1)	The generator does not dispose of the universal waste;			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.8(a)(2)	The universal waste is relinquished to another universal waste handler, a universal waste transporter (e.g., for curbside collection), a destination facility, or an authorized curbside household hazardous waste collection program;			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.
		66273.8(a)(3)	The generator does not treat the universal waste, except as follows:			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.
		66273.8(a)(3)(A)	The generator treats the universal waste pursuant to one or more of the following provisions of this chapter and complies with subsection (a)(3)(B) of this section:			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.
		66273.8(a)(3)(1)	Section 66273.33, subsections (a)(2), (b)(3), (c)(5)(C)1.a., and/or (c)(7) as referenced in section 66273.33, subsections (c)(4)(B)2., (c)(5)(B)2.b., and/or (c)(5)(C)4.b.; and/or			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.
		66273.8(a)(3)(2)	Sections: 66273.71, subsection (b); 66273.72, subsections (b)(1), (c)(1), (d)(1), and/or (e)(1).			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.
		66273.8(a)(3)(B)	The generator ensures that all materials produced from treating the universal waste are properly classified and managed in accordance with any applicable requirements of this division.			X		66273.8(a) has fewer household universal waste generator exemptions, making it more stringent. Also, according to state's definition of "household" in 66273.9, it means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. It does not include a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility; whereas, in 40 CFR 261.4(b)(1), it does include all the previously mentioned structures.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.8(a)(2)	Very small quantity generator wastes that are exempt under §262.14 of this chapter and are also of the same type as the universal wastes defined at §273.9.	66273.8(b)	Conditionally exempt small quantity universal waste generator exemption. A conditionally exempt small quantity universal waste generator, as defined in section 66273.9, is exempt from the requirements of this chapter applicable to a universal waste handler, as defined in section 66273.9, with respect to the management of that generator's universal waste, provided the conditions set forth in subsections (a)(1) through (a)(3) of this section are met.			X		Both the federal and state citations are based off the definitions of a small quantity generator (SQG) and conditionally exempt small quantity universal waste generator (CESQG). CESQG's can only generate no more than 100 kilograms of RCRA hazardous waste per calendar month, however, SQGs can produce between 100 kilograms to 1000 kilograms. - state citation is more stringent because CESQGs can generate only less hazardous waste than SQGs. - See "Conditionally exempt small quantity universal waste generator" definition in 6673.9 below.
273.8(b)	Persons who commingle the wastes described in paragraphs (a)(1) and (a)(2) of this section together with universal waste regulated under this part must manage the commingled waste under the requirements of this part.		No analogous citation			X		There is no analogous state citation because this section was a disposal exemption that expired, therefore, no longer needed. It was removed in the Authorized Treatment of Electronics Hazardous Waste - Final Regulations in 2009. State would be more stringent because it would not allow this exemption.
		66273.9	When used in this chapter, the terms listed in this section have the meanings given below. Unless otherwise specified, listed terms that cross-reference the definitions of other listed terms refer to the definitions set forth in this section for those other terms. Terms that are also defined in chapter 10 of this division are duplicated here solely for convenience of the regulated community. Terms used in this chapter that are not defined in this section but are defined in chapter 10 of this division and/or chapter 6.5 of division 20 of the Health and Safety Code have the meanings given in those sources.	X				The preamble does not increase the size of the regulated community or the waste stream. - It does not broaden the scope of the section
273.9	*Ampule* means an airtight vial made of glass, plastic, metal, or any combination of these materials.	66273.9	"Ampule" means an airtight vial made of glass, plastic, metal, or any combination of these materials.	X				State definition achieves same result as federal
273.9	*Battery* means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.	66273.9	"Battery" means a device consisting of one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, a cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.	X				State definition achieves same result as federal

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
260.10	Cathode ray tube or CRT means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT means a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.	66273.9	"Cathode ray tube" means a vacuum tube or picture tube used to convert an electrical signal into a visual image.	X				State definition achieves same result as federal
40 CCR part 258		66273.9	"Class II landfill" - means a waste management unit at which waste is discarded in or on land for disposal, and is regulated as a permitted class II landfill pursuant to section 20250 of title 27 of the California Code of Regulations. A class II landfill does not mean surface impoundment, waste pile, land treatment or soil amendments.	X				US EPA sets out federal requirements for operating solid waste and industrial landfill regulations in Title 40 CFR part 258 and California regulations are located at Sections 20250 and 20260 of title 27.
40 CCR part 258		66273.9	"Class III landfill - means a waste management unit at which waste is discarded in or on land for disposal, and is regulated as a permitted class III landfill pursuant to section 20260 of title 27 of the California Code of Regulations. A class III landfill does not mean surface impoundment, waste pile, land treatment or soil amendments.	X				US EPA sets out federal requirements for operating solid waste and industrial landfill regulations in Title 40 CFR part 258 and California regulations are located at Sections 20250 and 20260 of title 27.
260.10	Final closure means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under parts 264 and 265 of this chapter are no longer conducted at the facility unless subject to the provisions in §262.34.	66273.9	"Closure" means the act of closing a universal waste handler's facility pursuant to the requirements of article 7 of this chapter.	X				State definition achieves same result as federal

168

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
260.10	Very small quantity generator is a generator who generates less than or equal to the following amounts in a calendar month: (1) 100 kilograms (220 lbs.) of non-acute hazardous waste; and (2) 1 kilogram (2.2 lbs.) of acute hazardous waste listed in §261.31 or §261.33(e) of this chapter; and (3) 100 kilograms (220 lbs.) of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in §261.31 or §261.33(e) of this chapter.	66273.9	"Conditionally exempt small quantity universal waste generator" means a generator of universal waste who: (a) generates no more than 100 kilograms (220 pounds) of RCRA hazardous wastes, including universal wastes that are RCRA hazardous wastes, and no more than 1 kilogram (2.2 pounds) of acutely hazardous waste in any calendar month; and (b) remains in compliance with 40 CFR section 261.5. "CESQUWG" see "Conditionally exempt small quantity universal waste generator."			X		See: Federal Register Volume 76, Number 195 (Friday, October 7, 2011) G. What is EPA's position on California's regulation of conditionally exempt small quantity generators? When California initially received final authorization for the base RCRA program on July 23, 1992, effective August 1, 1992 (57 FR 32726), EPA Pacific Southwest Region (Region IX) identified California's failure to adopt the federal exclusion for conditionally exempt small quantity generators (CESQGs) (found, generally, at 40 CFR 261.5) as ``broader in scope'' than the federal program. (See also 40 CFR 270.1(c)(2)(iii).) However, EPA's position regarding the absence of the conditional exclusion for CESQGs in a state program has changed and EPA now clearly regards the absence of any such exclusion as more stringent than the federal program, making state regulation of CESQGs federally enforceable when authorized. See United States v. Southern Union Co., 643 F. Supp. 2d 201 (D.R.I. 2009). In order to harmonize our authorization of California's program with EPA's position with respect to CESQGs, EPA is hereby redesignating California's regulation of CESQGs as more stringent than the federal program. Therefore, the State's regulation of such federally exempt CESQGs will be part of the authorized state program and will be federally enforceable within the State of California. Specifically, this change will allow federal enforcement of State requirements applicable to CESQGs who are conditionally exempt under the federal provisions found at 40 CFR 261.5, 266.100(b)(3) and 270.1(c)(2)(iii). This change will not result in any new requirements on CESQGs, but will only mean that the more stringent State requirements for CESQGs will be federally enforceable.
260.10	Cathode ray tube or CRT means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT means a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.	66273.9	"CRT" see "Cathode ray tube."	X				State definition achieves same result as federal
260.10	Cathode ray tube or CRT means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT means a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.	66273.9	"CRT device" means any electronic device that contains one or more CRTs including, but not limited to, computer monitors, televisions, cash registers and oscilloscopes.	X				State definition achieves same result as federal - California Health and Safety Code 25143.2.5 defines CRTs as "a vacuum tube or picture tube used to convert an electrical signal into a visual image", which is equivalent to the federal definition.
		66273.9	"CRT funnel glass" means any glass separated from CRT panel glass derived from the treatment of one or more CRTs. CRT funnel glass consists of the neck and funnel section of a CRT, including the frit.	X				CRT funnel glass, CRT glass, and CRT panel glass are all components of CRTs. According to Federal Register FRL-7217-7 these components make up CRTs. See attached CRT/CRT Glass justification document for more information on the CRT/CRT glass CA category of UW.
		66273.9	"CRT glass" means any glass released or derived from the treatment or breakage of one or more CRTs or CRT devices. CRT glass includes CRT funnel glass and CRT panel glass.	X				CRT funnel glass, CRT glass, and CRT panel glass are all components of CRTs. According to Federal Register FRL-7217-7 these components make up CRTs. See attached CRT/CRT Glass justification document for more information on the CRT/CRT glass CA category of UW.

169

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	"CRT panel glass" means any glass separated from CRT funnel glass derived from the treatment of one or more CRTs. CRT panel glass consists only of the face plate of a CRT containing a phosphor viewing surface. CRT panel glass does not include the frit.	X				CRT funnel glass, CRT glass, and CRT panel glass are all components of CRTs. According to Federal Register FRL-7217-7 these components make up CRTs. See attached CRT/CRT Glass justification document for more information on the CRT/CRT glass CA category of UW.
264.142	See section CFR 264.142	66273.9	"Current closure cost estimate" means the most recent of the estimates prepared in accordance with article 7 of this chapter.	X				Section 264.142 outlines the process for a closure cost estimate, which is the as the current closure cost estimate found in section 66273.76 in Article 7.
		66273.9	"Dental amalgam" means dental amalgam chunks, dental amalgam fines, mixtures containing dental amalgam fines, single-use dental amalgam traps that contain dental amalgam, dental amalgam sludge, vacuum pump filters that contain dental amalgam, and extracted teeth with amalgam restorations.			X		There is no analogous federal definition. See mercury-containing equipment justification document for further information and 40 CFR 273.81 analysis.
273.9	*Destination facility* means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in §273.13 (a) and (c) and §273.33 (a) and (c). A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.	66273.9	"Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste pursuant to section 66273.60. A facility at which a particular category of universal waste is only accumulated is not a destination facility for purposes of managing that category of universal waste.	X				State language achieves same result as federal
		66273.9	"Dilators and weighted tubing" means mercury-containing dilators and weighted tubing used in medical procedures. "Dilators and weighted tubing" include, but are not limited to, bougie tubes, Canter tubes, and Miller-Abbot tubes.			X		Term is not directly defined in federal regulations, however, dilators and weighted tubing are mercury-containing equipment under 66273.33(c)(5)(F). See attached mercury containing equipment justification for more information on how the state categories of MCE compare with the federal definition of MCE. Federal regulations refer to mercury-containing equipment under 273.4(a) - State citation is imposing stricter managing techniques or adding to the regulated community.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	"Electronic device" means any electronic device that is identified as hazardous waste because it either exhibits the characteristic of toxicity as specified in article 3 of chapter 11 of this division, and/or is a listed hazardous waste as specified in article 4.1 of chapter 11 of this division. Examples of electronic devices include: computer monitors, televisions, cash registers and oscilloscopes (CRT devices), computers, computer peripherals, telephones, answering machines, radios, stereo equipment, tape players/recorders, phonographs, video cassette players/recorders, compact disc players/recorders, calculators, and some appliances. Electronic device does not mean a major appliance, as defined in Public Resources Code section 42166, or other devices which are comprised largely of metals, qualify as "scrap metal" as defined in section 66260.10, and are recycled.	X				Term defined in state regulation but not federal. - Electronic devices are still regulated federally even though there is no definition - In 71 FR 42928, US EPA presumes that electronic wastes would fall under a similar regulatory scheme as that of CRTs. - "With respect to non-CRT electronic materials, the Agency uses the same line of reasoning that is outlined above for CRTs to determine that the materials are not solid wastes if they are reused or only require repair and are not sent for processing or reclamation. That is, if an original user sends electronic materials to a reseller because he lacks the specialized knowledge needed to determine whether the units can be reused as products, the original user is not a RCRA generator. The materials are not considered solid wastes until a decision is made to recycle them in other ways or dispose of them." See attached electronic devices justification.
273.9	*FIFRA* means the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136-136y).	66273.9	Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
		66273.9	"Flame sensor" means a device, usually found in a gas-fired appliance, that uses the expansion and contraction of liquid mercury contained in a probe to open and shut a valve.			X		Term defined in state regulation but not federal. - Flame sensor is a mercury containing device, which are regulated as universal waste both federally and state
262.81	Foreign receiving facility means a facility which, under the importing country's applicable domestic law, is operating or is authorized to operate in the country of import to receive the hazardous wastes and to perform recovery or disposal operations on them.	66273.9	"Foreign Destination" means the ultimate recycling, treatment or disposal facility in a receiving country to which universal waste will be sent.	X				State language achieves same result as federal
		66273.9	"Frit" means a mixture of chemical solvent and powdered glass that joins the CRT funnel glass to the CRT panel glass.	X				Term is specifically defined in state regulation but not federal, however, frit, is part of a CRT
		66273.9	"Gas flow regulator" means a piece of mercury-containing equipment used to regulate the flow of gas through a gas meter.			X		Term defined in state regulation but not federal. - Gas flow regulators are a mercury containing device and state regulations are more stringent
		66273.9	"Gauge" see "Pressure or vacuum gauge."			X		Term defined in state regulation but not federal. - Gas flow regulators are a mercury containing device and state regulations are more stringent

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
	Generator means any person, by site, whose act or process produces hazardous waste identified or listed in part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation.	66273.9	"Generator" means: (a) Any person, by site, whose act or process produces hazardous waste identified or listed in chapter 11 of this division or whose act first causes a hazardous waste to become subject to regulation. (b) Any person, by site, whose act or process produces universal waste or whose act first causes a universal waste to become subject to regulation. "Handler of universal waste" see "Universal waste handler."	X				State language achieves same result as federal
261.4(b)(1)	Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. "Household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility:	66273.9	"Household" means a single detached residence or a single unit of a multiple residence unit and all appurtenant structures. For the purposes of this section, household does not mean a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility.			X		State definition for household is more specific and less inclusive that what is considered a "household" in federal regulations. As in 273.8(a) , this makes the state household exemption more narrow than the federal exemption, and therefore state regulations more stringent.
		66273.9	"Intermediate Facility" means a facility that manages CRTs and/or CRT glass pursuant to article 3 of this chapter or 40 Code of Federal Regulations section 261.4(a)(22), or as a destination facility or at a foreign destination.	X				There is no analogous federal citation to the state definition. - Because the state definition says a intermediate facility is a facility that manages CRTs as a destination facility or even 40 CFR 261.4(a)(22), it could be classified as equivalent to federal regulations, which have regulations for destination facilities and CRTs.
273.9	*Lamp,* also referred to as "universal waste lamp" is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.	66273.9	"Lamp" means the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.	X				State language achieves same result as federal

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.9	*Large Quantity Handler of Universal Waste* means a universal waste handler (as defined in this section) who accumulates 5,000 kilograms or more total of universal waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which the 5,000 kilogram limit is met or exceeded.		No analogous citation	X				California does not distinguish between large and small quantity handlers. They both fall under the definition of universal waste handler.
620.10	Management or hazardous waste management means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.	66273.9	"Management" means the handling, storage, transportation, processing, treatment, recovery, recycling, transfer and disposal of hazardous waste (including universal waste).	X				State language achieves same result as federal
		66273.9	"Mercury-added lamp" means a lamp to which elemental mercury has been added as an essential part of the manufacturing process used to create that lamp. Examples of common mercury-added lamps include, but are not limited to, fluorescent lamps and mercury vapor lamps.	X				There is no analogous federal definition, however, lamps containing mercury are mentioned in federal regulations and according to US EPA they would be managed as universal waste lamps, even though they have mercury.
		66273.9	"Mercury-added novelty" means a mercury-added product intended mainly for personal or household enjoyment or adornment. A "mercury-added novelty" includes, but is not limited to, any item intended for use as a practical joke, figurine, adornment, toy, game, card, ornament, yard statue or figure, candle, jewelry, holiday decoration, and item of apparel, including footwear.			X		The M003 listing was meant to be a "catch all" and designate mercury added novelties as hazardous waste when discarded even if these products don't meet the characteristics of hazardous waste under federal of state criteria. So there could be novelties that are managed as hazardous waste under the state M003 listing that wouldn't meet the federal criteria for hazardous waste. By having this separate category, it allows DTSC to characterize a broader spectrum of wastes as hazardous. - see mercury-containing equipment justification document for further analysis.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.9	*Mercury-containing equipment* means a device or part of a device (including thermostats, but excluding batteries and lamps) that contains elemental mercury integral to its function.	66273.9	"Mercury-containing equipment" means a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator.			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.
		66273.9	"Mercury-containing motor vehicle light switch" means any light switch found in the hood or in the trunk lid of a motor vehicle, if the light switch contains mercury.			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	"Mercury-containing motor vehicle switch" means any motor vehicle switch that contains mercury including, but not limited to, a mercury-containing motor vehicle light switch.			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.
		66273.9	"Mercury-containing rubber flooring" means any rubber flooring material formulated with intentionally added mercury.			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	"Mercury counterweights and dampers" means enclosed devices that use liquid mercury for weight or dampening; "mercury counterweights and dampers" includes, but is not limited to, a mercury bow stabilizer used in archery, a mercury recoil suppressor used in shooting, and a mercury counterweight used in a clock.			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.
		66273.9	"Mercury gas flow regulator" see "Gas flow regulator."			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	"Mercury switch" means an electrical switch that employs mercury to make an electrical contact. "Mercury switch" includes, but is not limited to, the following mercury-containing switches: mercury-containing motor vehicle switches, tilt switches, vibration-sensing switches, off-balance switches, float switches, silent light switches, and relays			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.
		66273.9	"Mercury thermometer" see "Thermometer."			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	"Non-automotive mercury switch" means any mercury switch other than a mercury-containing motor vehicle switch.			X		According to US EPA's ECONOMIC ANALYSIS OF INCLUDING MERCURY CONTAINING EQUIPMENT IN THE UNIVERSAL WASTE SYSTEM: FINAL RULE (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2004-0012-0002) MCE is defined as any device that contains metallic mercury as a component necessary for its operation, with the exception of thermostats, lamps, and batteries. MCE can be divided into four general categories: Thermometers; Switches and relays; Gauges and meters; and "Other devices." Example of "other devices" listed in Exhibit 2-1 in the document are: tubes/dilators & recoil suppressors. California's definition for MCE lists out equipment: A MCE is a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator. State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. However, state categories of mercury added novelties, mercury rubber flooring and dental amalgams are outside the scope of the federal MCE definition. For more information on a comparison of state and federal MCE wastes, see the attached mercury containing equipment justification.
270.2	Off-site means any site which is not on-site.	66273.9	"Offsite" means any site which is not onsite.	X				State language achieves same result as federal
273.9	On-site means the same or geographically contiguous property which may be divided by public or private right-of-way, provided that the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right of way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, are also considered on-site property.	66273.9	"Onsite" means the same or geographically contiguous property which may be divided by public or private right-of-way, provided that the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which the person controls and to which the public does not have access, are also considered onsite property.	X				State language achieves same result as federal
		66273.9	"Pressure or vacuum gauge" means any device in which pressure or vacuum is measured using the height of a column of liquid mercury. "Pressure or vacuum gauge" includes, but is not limited to, barometers, manometers, and sphygmomanometers.			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.
273.9	*Pesticide* means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.9	(a) Is a new animal drug under FFDCA section 201(w), or		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.9	(b) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.9	(c) Is an animal feed under FFDCA section 201(x) that bears or contains any substances described by paragraph (a) or (b) of this section.		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
260.10	Generator means any person, by site, whose act or process produces hazardous waste identified or listed in part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation.	66273.9	"Producer" see "Generator."	X				State language achieves same result as federal
261.1(c)(6)	"Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.	66273.9	"Scrap metal" means (a) any one or more of the following, except as provided in subsection (b) of this section:	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(1) manufactured, solid metal objects and products;	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(2) metal workings, including cuttings, trimmings, stampings, grindings, shavings and sandings;	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(3) solid metal residues of metal production; or	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	(4) printed circuit boards that are recycled [except for printed circuit boards referenced in subsec. (b)(7) of this section].	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(b) "Scrap metal" excludes all of the following:	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(1) lead-acid storage batteries, waste elemental mercury, and water-reactive metals such as sodium, potassium and lithium;	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(2) magnesium borings, trimmings, grindings, shavings and sandings and any other forms capable of producing independent combustion;	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(3) beryllium borings, trimmings, grindings, shavings, sandings and any other forms capable of producing adverse health effects or environmental harm in the opinion of the Department;	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(4) any metal contaminated with a hazardous waste, such that the contaminated metal exhibits any characteristic of a hazardous waste under article 3 of chapter 11 of this division;	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	(5) any metal contaminated with an oil that is a hazardous waste and that is free-flowing;	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(6) sludges, fine powders, semi-solids and liquid solutions that are hazardous wastes; and	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
		66273.9	(7) Any printed circuit board that has been removed from a universal waste electronic device by a universal waste handler as a result of the handler's conduct of activities authorized by sections 66273.71, 66273.72, and/or 66273.73 of chapter 23 of this division and is subject to management as a hazardous waste pursuant to sections 66273.71, 66273.72 and/or 66273.73.	X				The scrap metal definition is added to the states definitions because in article 7 of chapter 23, it describes treatment options for electronic devices, including CRTs. These regulations are to ensure scrap metal from electronic devices are property recycled in compliance with sections 66261.6 and 40 CFR 261.6. Because the scrap metal is being managed outside of universal waste rules in both federal and state regulations, these definitions are equivalent.
273.9	*Small Quantity Handler of Universal Waste* means a universal waste handler (as defined in this section) who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time.		No analogous citation			X		State definition for universal waste handlers is more stringent as California does not distinguish between requirements for handlers based on amount of waste accumulated.
		66273.9	"Thermometer" means any thermometer that uses the expansion and contraction of a column of mercury to measure temperature.			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.
273.9	*Thermostat* means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of 40 CFR 273.13(c)(2) or 273.33(c)(2).	66273.9	"Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of section 66273.33(c)(5).			X		Term defined in state regulation and federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
260.10	Treatment means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.	66273.9	"Treatment" or "treat" or "treating" means any method, technique, or process which changes or is designed to change the physical, chemical, or biological character or composition of any hazardous waste or any material contained therein, or removes or reduces its harmful properties or characteristics for any purpose including, but not limited to, energy recovery, material recovery or reduction in volume.	X				State language achieves same result as federal
273.9	*Universal Waste* means any of the following hazardous wastes that are subject to the universal waste requirements of this part 273:	66273.9	"Universal waste" means any of the wastes that are listed in section 66261.9.			X		The state definition of hazardous waste in 22 CCR 66260.10 includes universal wastes. "Hazardous waste" means a hazardous waste as defined in section 66261.3 of this division. "Hazardous waste" includes acutely hazardous waste, extremely hazardous waste, non-RCRA hazardous waste, RCRA hazardous waste, special waste and universal waste. - Because some of the wastes that US EPA regulates as universal waste are regulated as hazardous waste under state regulations, such as pesticides and certain types of MCE, it would be more stringent.
	(1) Batteries as described in §273.2;	66273.9	"Battery" means a device consisting of one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, a cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.	X				State language achieves same result as federal
	(2) Pesticides as described in §273.3;	66273.9	Not adopted			X		The state did not adopt the federal listing of pesticides as a universal waste. Therefore, it is fully managed as a hazardous waste making all sections more stringent
	(3) Mercury-containing equipment as described in §273.4; and	66273.9	"Mercury-containing equipment" means a thermostat, mercury switch, thermometer, dental amalgam, pressure or vacuum gauge, mercury-added novelty, mercury counterweight and damper, dilator and weighted tubing, mercury-containing rubber flooring, and gas flow regulator.			X		State's definition of mercury-containing equipment lists out the equipment considered mercury-containing equipment, however, the federal definition refers to a device or part of a device that contains elemental mercury integral to its function. - federal definition encompasses a broader waste stream, whereas the state definition is more stringent in what is being considered universal waste See the attached mercury containing equipment justification document for a more detailed comparison of state and federal MCE.

182

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
	(4) Lamps as described in §273.5.	66273.9	"Lamp" means the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.	X				State language achieves same result as federal
		66273.9	"Universal waste dental amalgam" see "Dental amalgam."	X				See mercury-containing equipment justification document for further information and 40 CFR 273.81 analysis.
		66273.9	"Universal waste dilators and weighted tubing" see "Dilators and weighted tubing."			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.
		66273.9	"Universal waste gas flow regulator" see "Gas flow regulator."			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.
		66273.9	"Universal waste gauge" see "Pressure or vacuum gauge."			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.
273.9	*Universal Waste Handler:*	66273.9	"Universal waste handler":	X				State language achieves same result as federal
	(a) Means:	66273.9	(a) Means:	X				State language achieves same result as federal
	(1) A generator (as defined in this section) of universal waste; or	66273.9	(1) A generator (as defined in section 66260.10 and this section) of universal waste; or	X				State language achieves same result as federal
	(2) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.	66273.9	(2) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination; or	X				State language achieves same result as federal

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
		66273.9	(3)The owner or operator of a facility who is authorized to treat universal waste pursuant to article 7 of this chapter.				X	Federal regulation allow universal waste handlers to perform certain treatment activities in 273.33(a)&(c) and 273.13(a)&(c), which is for batteries and MCE. - State regulations also allow for certain treatment activities for batteries and MCE in 66273.33, however, the state also allows for certain treatment activities that are outlined in Article 7 for electronic devices, CRTs, and CRT glass. - The waste streams listed in article 7 (e-wastes) are all state-only universal wastes and not federal universal wastes. See the attached justifications for MCE, CRT/CRT glass and electronic wastes for more details on how California regulates these categories of waste.
	(b) Does not mean:	66273.9	(b) Does not mean:	X				State language achieves same result as federal
	(1) A person who treats (except under the provisions of 40 CFR 273.13 (a) or (c), or 273.33 (a) or (c)), disposes of, or recycles universal waste; or	66273.9	(1) A person who treats or recycles (except as allowed/authorized in this chapter), or disposes of, universal waste; or	X				State language achieves same result as federal
	(2) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.	66273.9	(2) A person engaged in the offsite transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility; or	X				State language achieves same result as federal
		66273.9	(3) The owner or operator of a destination facility.	X				State requirements are equivalent to federal regulations at 40 CFR 273.60(a) in that If you are required to comply with the permitting requirements for hazardous waste, you are no longer under universal waste authority.
273.9	*Lamp,* also referred to as "universal waste lamp" is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.	66273.9	"Universal waste lamp" see "Lamp."	X				State language achieves same result as federal
273.9		66273.9	"Universal waste mercury counterweights and dampers" see "Mercury counterweights and dampers."			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.
273.9		66273.9	"Universal waste mercury switch" see "Mercury switch."			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.9		66273.9	"Universal waste rubber flooring" see "Mercury-containing rubber flooring."			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.
273.9		66273.9	"Universal waste thermometer" see "Thermometer."			X		Term defined in state regulation but not federal. Because the state only allows specific MCE to be managed as universal waste and is not as general as the federal definition, the state is more stringent. Items not listed in the state definition for MCE must be managed as full hazardous waste. - see mercury-containing equipment justification document for further analysis.
273.9	*Universal Waste Transfer Facility* means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.	66273.9	"Universal waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.	X				State language achieves same result as federal
273.9	*Universal Waste Transporter* means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.	66273.9	"Universal waste transporter" means a person engaged in the offsite transportation of universal waste by air, rail, highway, or water.	X				State language achieves same result as federal
260.10		66273.9	"Universal waste treatment unit" means a contiguous area of a universal waste handler's facility on or in which universal waste is managed pursuant to section 66273.73, subsection (a)(2) or section 66273.73, subsection (b). Examples of universal waste treatment units include a disassembly or removal area, a shredder and associated equipment, a glass crusher, an accumulation area, or a container staging or storage area. A container alone does not constitute a universal waste treatment unit. A universal waste treatment unit includes containers and the land or pad upon which they are placed.	X				Though there is no federal definition, UW treatment units apply to CRTs and electronic devices, which US EPA does regulate and the facilities that managed them.
		66273.9	"Waste management unit" means an area of land, or a portion of a waste management facility, at which waste is discharged. The term includes containment features and ancillary features for precipitation and drainage control and monitoring.	X				Federal regulations define containment units as waste management units used to store or treat hazardous waste under the provisions of subpart DD of parts 264 and 265. After reviewing sections 66264 and 66265 of state regulations, it was concluded that they have the same requirements. This would the state definition equivalent to the federal.

185

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.10	This subpart applies to small quantity handlers of universal waste (as defined in 40 CFR 273.9).	273.30	This subpart applies to large quantity handlers of universal waste (as defined in §273.9).	66273.30	This article applies to universal waste handlers (as defined in section 66273.9).	X				State citation at a minimum is equivalent to the federal citation because it encompasses all universal waste handlers, including small and large quantity handlers that fall under federal regulations as defined in 40 CFR 273.9.
273.11	A small quantity handler of universal was	273.31	A large quantity handler of universal waste is:	66273.31	A universal waste handler is:	X				State citation at a minimum is equivalent to the federal citation because it encompasses all universal waste handlers, including small and large quantity handlers that fall under federal regulations as defined in 40 CFR 273.9.
273.11(a)	Prohibited from disposing of universal waste; and	273.31(a)	Prohibited from disposing of universal waste; and	66273.31(a)	Prohibited from disposing of universal waste [however, a universal waste handler may send or take batteries, thermostats, mercury-added novelties containing no liquid mercury, and mercury-containing rubber flooring that are universal wastes to a destination facility for disposal]; and	X				State language achieves same result as federal. State citation also states that a universal waste handler can send universal waste to a destination facility for disposal
273.11(b)	Prohibited from diluting or treating universal waste, except by responding to releases as provided in 40 CFR 273.17; or by managing specific wastes as provided in 40 CFR 273.13.	273.31(b)	Prohibited from diluting or treating universal waste, except by responding to releases as provided in 40 CFR 273.37; or by managing specific wastes as provided in 40 CFR 273.33.	66273.31(b)	Prohibited from diluting or treating universal waste, except by responding to releases as provided in section 66273.37, or by managing specific wastes as provided in sections 66273.33 and 66273.33.5.			X		State regulations list analogous requirements for response to releases using guidance in 66273.37 - state regulations allow certain treatment activities in article 7 of chapter 23, which is stated in 66273.33 and 66273.335.5
273.12	A small quantity handler of universal waste is not required to notify EPA of universal waste handling activities.	273.32(a)(1)	Except as provided in paragraphs (a)(2) and (3) of this section, a large quantity handler of universal waste must have sent written notification of universal waste management to the Regional Administrator, and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.	66273.32(a) 66273.32(a)(1)	USEPA notification requirements. Except as provided in subsections (a)(2) and (b) of this section, a universal waste handler shall have sent written notification of universal waste management to the Regional Administrator, and received a federal ID Number, before accumulating 5,000 kilograms of universal waste.			X		More stringent because the state regulations apply to all universal waste handlers - federal regulations apply only to large quantity handers and not small quantity handlers.
		273.32(a)(2)	A large quantity handler of universal waste who has already notified EPA of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify under this section.	66273.32(a)(2)	A universal waste handler who has already notified the USEPA of the universal waste handler's hazardous waste management activities and has received an EPA Identification Number is not required to renotify pursuant to this section.			X		More stringent because the state regulations apply to all universal waste handlers - federal regulations apply only to large quantity handers and not small quantity handlers.
		273.32(a)(3)	A large quantity handler of universal waste who manages recalled universal waste pesticides as described in 40 CFR 273.3(a)(1) and who has sent notification to EPA as required by 40 CFR part 165 is not required to notify for those recalled universal waste pesticides under this section.		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste management in California.

187

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.32(b)	A universal waste handler who accumulates 5,000 kilograms of universal waste, but who would not be required to notify the Regional Administrator pursuant to 40 Code of Federal Regulations section 273.32(a)(1) because the universal wastes handled are non-RCRA hazardous waste shall obtain an ID Number, as defined in section 66260.10, from the Department.				X	State citation increases the size of the regulated community or universe of wastes - State requires handlers of non-RCRA waste to get a different (state) ID number - Federal regulations do not manage non-RCRA hazardous waste
		273.32(b)	This notification must include:		Analogous citation would be covered under 66273.32(a)(1)	X				66273.32 references notification to US EPA and the receipt of a federal ID number, which would require the handler to follow the federal regulations concerning notification, which states the requirements. - DTSC is also responsible for receiving 8700-12 forms which are for used for both federal and state notifications. The 8700-12 has all the requirements from 273.32
		273.32(b)(1)	The universal waste handler's name and mailing address;		Analogous citation would be covered under 66273.32(a)(1)	X				66273.32 references notification to US EPA and the receipt of a federal ID number, which would require the handler to follow the federal regulations concerning notification, which states the requirements. - DTSC is also responsible for receiving 8700-12 forms which are for used for both federal and state notifications. The 8700-12 has all the requirements from 273.32
		273.32(b)(2)	The name and business telephone number of the person at the universal waste handler's site who should be contacted regarding universal waste management activities;		Analogous citation would be covered under 66273.32(a)(1)	X				66273.32 references notification to US EPA and the receipt of a federal ID number, which would require the handler to follow the federal regulations concerning notification, which states the requirements. - DTSC is also responsible for receiving 8700-12 forms which are for used for both federal and state notifications. The 8700-12 has all the requirements from 273.32
		273.32(b)(3)	The address or physical location of the universal waste management activities;		Analogous citation would be covered under 66273.32(a)(1)	X				66273.32 references notification to US EPA and the receipt of a federal ID number, which would require the handler to follow the federal regulations concerning notification, which states the requirements. - DTSC is also responsible for receiving 8700-12 forms which are for used for both federal and state notifications. The 8700-12 has all the requirements from 273.32

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
		273.32(b)(4)	A list of all the types of universal waste managed by the handler (e.g., batteries, pesticides, mercury-containing equipment, and lamps); and		Analogous citation would be covered under 66273.32(a)(1)	X				66273.32 references notification to US EPA and the receipt of a federal ID number, which would require the handler to follow the federal regulations concerning notification, which states the requirements. - DTSC is also responsible for receiving 8700-12 forms which are for used for both federal and state notifications. The 8700-12 has all the requirements from 273.32
		273.32(b)(5)	A statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time.		Analogous citation would be covered under 66273.32(a)(1)	X				66273.32 references notification to US EPA and the receipt of a federal ID number, which would require the handler to follow the federal regulations concerning notification, which states the requirements. - DTSC is also responsible for receiving 8700-12 forms which are for used for both federal and state notifications. The 8700-12 has all the requirements from 273.32
				66273.33	The requirements of this section apply only to universal waste handlers of batteries, lamps (including M003 wastes that contain lamps), and mercury-containing equipment. The corresponding requirements for universal waste handlers of electronic devices, CRTs, and CRT glass are set forth in section 66273.33.5. Handlers of universal wastes that are both electronic devices and M003 wastes [e.g., an electronic device that contains a lamp [an M003 waste)] shall comply with this section and section 66273.33.5 for the management of those universal wastes. However, once lamp removal is completed on such waste, such waste shall no longer to be managed as M003 waste and it shall be managed as an electronic device pursuant to section 66273.33.5, if applicable.			X		There are different requirements in this section which are more stringent in state regulations. - The scope of mercury-containing devices (MCE) is broader in federal regulations and more narrow in state regulations. California decided to be more stringent with which MCE can be managed as universal waste and did not want to adapt the broader federal definition. An analysis on how California's MCE definition at a minimum meets the federal definition was done in a separate document titled - mercury-containing equipment justification.
273.13(a)	*Universal waste batteries.* A small quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:	273.33(a)	Universal waste batteries. A large quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:	66273.33(a)	Batteries. A handler shall manage batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.13(a)(1)	A small quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.	273.33(a)(1)	A large quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.	66273.33(a)(1)	A universal waste handler shall contain any battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the battery and its contents, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(2)	A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):	273.33(a)(2)	A large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):	6627.33(a)(2)	A universal waste handler may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but shall be immediately closed after removal):	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(2)(i)	Sorting batteries by type;	273.33(a)(2)(i)	Sorting batteries by type;	6627.33(a)(2)(A)	Sorting batteries by type;	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(2)(ii)	Mixing battery types in one container;	273.33(a)(2)(ii)	Mixing battery types in one container;	6627.33(a)(2)(B)	Mixing battery types in one container;	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(2)(iii)	Discharging batteries so as to remove the electric charge;	273.33(a)(2)(iii)	Discharging batteries so as to remove the electric charge;	6627.33(a)(2)(C)	Discharging batteries so as to remove the electric charge;	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(2)(iv)	Regenerating used batteries;	273.33(a)(2)(iv)	Regenerating used batteries;	6627.33(a)(2)(D)	Regenerating used batteries;	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(2)(v)	Disassembling batteries or battery packs into individual batteries or cells;	273.33(a)(2)(v)	Disassembling batteries or battery packs into individual batteries or cells;	6627.33(a)(2)(E)	Disassembling batteries or battery packs into individual batteries or cells;	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(2)(vi)	Removing batteries from consumer products; or	273.33(a)(2)(vi)	Removing batteries from consumer products; or	66273.33(a)(2)(F)	Removing batteries from consumer products; or	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(2)(vii)	Removing electrolyte from batteries.	273.33(a)(2)(vii)	Removing electrolyte from batteries.	66273.33(a)(2)(G)	Removing electrolyte from batteries.	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader In Scope	Justifications
273.13(a)(3)	A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C.	273.33(a)(3)	A large quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C.	66273.33(a)(3)	A universal waste handler who removes electrolyte from batteries, or who generates other waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed in subsection (a)(2) of this section, shall determine whether the electrolyte and/or other waste exhibit a characteristic of hazardous waste identified in article 3 of chapter 11.	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(3)(i)	If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it is subject to all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to 40 CFR part 262.	273.33(a)(3)(i)	If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to 40 CFR part 262.	66273.33(a)(3)(A)	If the electrolyte and/or other waste exhibit a characteristic of hazardous waste, it shall be managed in compliance with all applicable requirements of this division. The universal waste handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to chapter 12.	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(a)(3)(ii)	If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.	273.33(a)(3)(ii)	If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.	66273.33(a)(3)(B)	If the electrolyte or other waste is not hazardous, the universal waste handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
273.13(b)	Universal waste pesticides. A small quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:	273.33(b)	Universal waste pesticides. A large quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste management in California and cannot be managed as a universal waste.
273.13(b)(1)	A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or	273.33(b)(1)	A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste management in California and cannot be managed as a universal waste.
273.13(b)(2)	A container that does not meet the requirements of paragraph (b)(1) of this Section, provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (b)(1) of this Section; or	273.33(b)(2)	A container that does not meet the requirements of paragraph (b)(1) of this section, provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (b)(1) of this section; or		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste management in California and cannot be managed as a universal waste.
273.13(b)(3)	A tank that meets the requirements of 40 CFR part 265 subpart J, except for 40 CFR 265.197(c), 265.200, and 265.201; or	273.33(b)(3)	A tank that meets the requirements of 40 CFR part 265 subpart J, except for 40 CFR 265.197(c), 265.200, and 265.201; or		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste management in California and cannot be managed as a universal waste.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.13(b)(4)	A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.	273.33(b)(4)	A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste management in California and cannot be managed as a universal waste.
273.13(c)	Mercury-containing equipment. A small quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:	273.33(c)	Mercury-containing equipment. A large quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:	66273.33(c) 66273.33(c)(3) 66273.33(c)(4) 66273.33(c)(5)	Mercury-containing equipment. Mercury-containing rubber flooring. A universal waste handler shall manage mercury-containing rubber flooring in a way that prevents releases of any universal waste or component of a universal waste to the environment under reasonably foreseeable conditions. Dental amalgams and/or pressure or vacuum gauges. A universal waste handler shall manage dental amalgams and/or pressure or vacuum gauges in a way that prevents releases of any universal waste or component of a universal waste to the environment under reasonably foreseeable conditions, and shall: All other mercury-containing equipment. A universal waste handler of the mercury-containing equipment listed in subsections (c)(5)(A) through (c)(5)(F) of this section (i.e., thermostats, mercury switches, mercury-added novelties, gas flow regulators, mercury counterweights and dampers, and/or dilators and weighted tubing) shall manage such equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment under reasonably foreseeable conditions, and shall comply with the additional requirements specified in those subsections.			X		Federal regulations refer to any "universal waste mercury-containing equipment." In contrast, State regulations list specific devices and/or equipment that contain mercury. See the attached Mercury Containing Equipment Justification for a detailed comparison of the scope of the federal category and the state categories. State regulations are more stringent for mercury-containing equipment in 66273.4 because the state only allows a list of MCEs to be regulated as universal wastes, whereas, the federal regulations cover a broader scope of MCE. Under state regulations, MCEs not included as UW that meet toxicity characteristics for mercury are regulated as hazardous waste. The state list includes: thermostats, mercury switches, mercury-containing motor vehicle light switches, non-automotive mercury switches, dental amalgam, pressure or vacuum gauges, mercury-added novelties, mercury counterweights and dampers, thermometers, dilators and weighted tubing, mercury-containing rubber flooring, and gas flow regulators. - If a piece of federal mercury containing equipment is not listed in the state's definition for MCE, then under state regulations it cannot be managed as universal waste and would be managed under full hazardous waste regulations, more stringently than federal regulations.
				66273.33(c)(1)	Accumulation. A universal waste handler who accumulates any mercury-containing equipment received from another universal waste handler shall:			X		California universal waste regulations state handlers must comply with seismic and precipitation standards and location standards, whereas, federal regulations make no such requirement. - state regulations only allow accumulation in locations that are zoned for commercial and industrial uses and consistent with local zoning requirements, whereas, federal regulations make no such requirement. - state regulations require disclosure in business and use permit applications that mercury is being used, whereas, federal regulations make no such requirement.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(1)(A)	Comply with all applicable requirements for handling hazardous materials;			X		California universal waste regulations state handlers must comply with seismic and precipitation standards and location standards, whereas, federal regulations make no such requirement. - state regulations only allow accumulation in locations that are zoned for commercial and industrial uses and consistent with local zoning requirements, whereas, federal regulations make no such requirement. - state regulations require disclosure in business and use permit applications that mercury is being used, whereas, federal regulations make no such requirement.
				66273.33(c)(1)(B)	Disclose in all applicable business and use permitting applications that mercury is being handled;			X		California universal waste regulations state handlers must comply with seismic and precipitation standards and location standards, whereas, federal regulations make no such requirement. - state regulations only allow accumulation in locations that are zoned for commercial and industrial uses and consistent with local zoning requirements, whereas, federal regulations make no such requirement. - state regulations require disclosure in business and use permit applications that mercury is being used, whereas, federal regulations make no such requirement.
				66273.33(c)(1)(C)	Comply with the location standards in section 66265.18;			X		California universal waste regulations state handlers must comply with seismic and precipitation standards and location standards, whereas, federal regulations make no such requirement. - state regulations only allow accumulation in locations that are zoned for commercial and industrial uses and consistent with local zoning requirements, whereas, federal regulations make no such requirement. - state regulations require disclosure in business and use permit applications that mercury is being used, whereas, federal regulations make no such requirement.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(1)(D)	Comply with the seismic and precipitation design standards in section 66265.25;			X		California universal waste regulations state handlers must comply with seismic and precipitation standards and location standards, whereas, federal regulations make no such requirement. - state regulations only allow accumulation in locations that are zoned for commercial and industrial uses and consistent with local zoning requirements, whereas, federal regulations make no such requirement. - state regulations require disclosure in business and use permit applications that mercury is being used, whereas, federal regulations make no such requirement.
				66273.33(c)(1)(E)	Accumulate mercury-containing equipment only in locations that are zoned for commercial or industrial uses, are consistent with local zoning requirements and land use patterns, and do not pose site-specific land-use hazards or contain sensitive habitat area, based on a review of state and local planning documents and constraints mapping.			X		California universal waste regulations state handlers must comply with seismic and precipitation standards and location standards, whereas, federal regulations make no such requirement. - state regulations only allow accumulation in locations that are zoned for commercial and industrial uses and consistent with local zoning requirements, whereas, federal regulations make no such requirement. - state regulations require disclosure in business and use permit applications that mercury is being used, whereas, federal regulations make no such requirement.
				66273.33(c)(2)	Prevention of releases to the environment. A universal waste handler, who manages the types of mercury-containing equipment identified in subsections (c)(3) through (c)(5) of this section, shall comply with the requirements specified in those subsections.	X				Federal and state regulations both contain requirements for managing MCE to prevent releases to the environment. (See federal counterpart 40 CFR 273.13(c))
				66273.33(c)(3)	Mercury-containing rubber flooring. A universal waste handler shall manage mercury-containing rubber flooring in a way that prevents releases of any universal waste or component of a universal waste to the environment under reasonably foreseeable conditions.	X				See mercury-containing equipment justification document for analysis on why rubber flooring and dental amalgams were added to California's MCE definition and how they meet the criteria for adding new wastes to the universal waste program in 273.81
				66273.33(c)(4)	Dental amalgams and/or pressure or vacuum gauges. A universal waste handler shall manage dental amalgams and/or pressure or vacuum gauges in a way that prevents releases of any universal waste or component of a universal waste to the environment under reasonably foreseeable conditions, and shall:	X				See mercury-containing equipment justification document for analysis on why rubber flooring and dental amalgams were added to California's MCE definition and how they meet the criteria for adding new wastes to the universal waste program in 273.81

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(4)(A)	Comply with all of the following with respect to the dental amalgams:			X		State citations are more stringent than federal citation because state regulations go into detail on how universal waste handlers are supposed to manage mercury-containing equipment Federal regulations do not go into such detail or mention any equivalent standards.
				66273.33(c)(4)(A)(1)	Place dental amalgams (e.g., dental-amalgam scraps and fines, single-use dental-amalgam traps and filters, and extracted teeth with dental-amalgam restorations) in airtight containers. The containers shall be kept closed, except when dental amalgams are being added or removed.			X		State citations are more stringent than federal citation because state regulations go into detail on how universal waste handlers are supposed to manage mercury-containing equipment Federal regulations do not go into such detail or mention any equivalent standards.
				66273.33(c)(4)(A)(2)	Not rinse dental-amalgam traps or filters into a sink.			X		State citations are more stringent than federal citation because state regulations go into detail on how universal waste handlers are supposed to manage mercury-containing equipment Federal regulations do not go into such detail or mention any equivalent standards.
				66273.33(c)(4)(A)(3)	Not place dental amalgams into medical waste containers.			X		State citations are more stringent than federal citation because state regulations go into detail on how universal waste handlers are supposed to manage mercury-containing equipment Federal regulations do not go into such detail or mention any equivalent standards.
				66273.33(c)(4)(B)	Comply with all of the following with respect to the pressure or vacuum gauges:			X		See justification for 66273.33(c)(4).
				66273.33(c)(4)(B)(1)	Manage pressure or vacuum gauges as follows:					See justification for 66273.33(c)(4).
				66273.33(c)(4)(B)(1)(a)	All openings through which mercury could escape shall be securely closed with appropriately sized stoppers or other closures that are compatible with the contents of the pressure or vacuum gauge.			X		See justification for 66273.33(c)(4).
				66273.33(c)(4)(B)(1)(b)	Each pressure or vacuum gauge shall be sealed in a plastic bag. Plastic bags containing pressure or vacuum gauges shall be placed into a container or package that is structurally sound, adequate to prevent breakage, and compatible with the contents of the pressure or vacuum gauge. The container or package shall remain closed (except when pressure or vacuum gauges are added or removed), and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall contain packing materials adequate to prevent breakage during storage, handling, and transportation.			X		See justification for 66273.33(c)(4).

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(4)(B)(1)(c)	Pressure or vacuum gauges shall be kept upright at all times during handling, accumulation, and transportation.			X		See justification for 66273.33(c)(4).
				66273.33(c)(4)(B)(1)(d)	A mercury clean-up system shall be readily available to transfer immediately any mercury resulting from spills or leaks from pressure or vacuum gauges to an airtight container that meets the requirements of subsection (c)(4)(B)1.b. of this section.			X		See justification for 66273.33(c)(4).
				66273.33(c)(4)(B)(2)	Meet the requirements of subsection (c)(7) of this section, if removing liquid mercury from a pressure or vacuum gauge.			X		See justification for 66273.33(c)(4).
				66273.33(c)(5)(A)	Thermostats. A universal waste handler shall manage thermostats (and ampules removed from thermostats) in accordance with the requirements of subsection (c)(6)(A) of this section.	X				Mercury switches are not specifically mentioned in federal regulations, however, they are still considered mercury-containing equipment under the federal definition. See explanation in the mercury-containing equipment justification document. Thermometers are considered mercury-containing equipment per the federal definition for mercury-containing equipment. The state management standards are more stringent because they include additional requirements in (c)(6)(c)
				66273.33(c)(5)(B)	Mercury switches and/or thermometers. A universal waste handler shall manage mercury switches and/or thermometers in accordance with the requirements of subsection (c)(6)(C) of this section and with the following requirements, as applicable:			X		Mercury switches are not specifically mentioned in federal regulations, however, they are still considered mercury-containing equipment under the federal definition. See explanation in the mercury-containing equipment justification document. Thermometers are considered mercury-containing equipment per the federal definition for mercury-containing equipment. The state management standards are more stringent because they include additional requirements in (c)(6)(c)

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(5)(B)(1)(a)	Contain in a sealed plastic bag in a container, any mercury switch or thermometer that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall be closed (except when a mercury switch or thermometer is added or removed), structurally sound, and compatible with the contents of the mercury switches and/or thermometers, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall contain packing materials adequate to prevent breakage of mercury switches and/or thermometers during storage, handling, and transportation.			X		Federal regulations in 273.33(c) do not require a sealed plastic bag, only a closed container
				66273.33(c)(5)(B)(1)(b)	Accumulate thermometers in closed, non-leaking containers that are in good condition and shall pack thermometers with packing materials adequate to prevent breakage during storage, handling, and transportation.			X		Thermometers and mercury switches fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(B)(2)	Do the following, prior to crushing, baling, shearing, or shredding a motor vehicle equipped with one or more mercury switches that are also mercury-containing motor vehicle light switches:			X		Thermometers and mercury switches fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(B)(2)(a)	Remove all such mercury switches (except those that cannot be removed due to accidental damage to the vehicle) or ensure that all such mercury switches (except those that cannot be removed due to accidental damage to the vehicle) have already been removed; and			X		Thermometers and mercury switches fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(B)(2)(b)	Comply with subsection (c)(7) of this section, if removing a mercury-containing motor vehicle light switch.			X		Thermometers and mercury switches fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(5)(C)	Mercury-added novelties. A universal waste handler shall manage mercury-added novelties in accordance with the requirements of subsection (c)(6)(C) of this section and with the following requirements, as applicable:			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.
				66273.33(c)(5)(C)(1)	Manage mercury-added novelties, whose only mercury is contained in a button cell or other battery, pursuant to the requirements for batteries specified in subsection (a) of this section.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(5)(C)(1)(a)	A universal waste handler, who is also a conditionally exempt small quantity universal waste generator, may remove from such mercury-added novelties batteries containing mercury if they are removable.	X				Section 66273.33(c)(5)(C) states that CESQGs may remove from mercury-added novelties batteries containing mercury but must follow the requirements for (c)(6)(C) and subsection (a) of 66273.33 which deals with universal waste batteries. When comparing the management requirements for UW batteries, the federal regulations are equivalent to state regulations. - According to 70 FR 45508 (Hazardous Waste Management System; Modification of the Hazardous Waste Program; Mercury Containing Equipment, page 45512) the management requirements for batteries remained covered under 273.13(a) & 273.33(a), even though wastes can contain mercury. - So under federal regulations, generators would be able to remove batteries containing mercury as long as they followed the requirements in subsection (a) making this citation equivalent because the state has equivalent requirements for the handling of UW batteries as the feds.
				66273.33(c)(5)(C)(1)(b)	Batteries removed from such mercury-added novelties may be managed pursuant to subsection (a) of this section.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(5)(C)(2)	Accumulate in an airtight container, mercury-added novelties that are painted with paint containing mercury. The container shall be closed (except when mercury-added novelties are added or removed), structurally sound, and compatible with the mercury-added novelties, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.
				66273.33(c)(5)(C)(3)	Manage mercury-added novelties that contain liquid mercury, as follows:			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.
				66273.33(c)(5)(C)(3)(a)	Such mercury-added novelties shall be packed in an airtight container, with packing materials adequate to prevent breakage during storage, handling, and transportation. The container shall: be closed (except when mercury-added novelties are added or removed), structurally sound, and compatible with the mercury-added novelties, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(5)(C)(3)(b)	Any such mercury-added novelty that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions shall be placed in an airtight container. The container shall meet the requirements of subsection (c)(5)(C)3.a. of this section.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.
				66273.33(c)(5)(C)(3)(c)	A mercury clean-up system shall be readily available.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.
				66273.33(c)(5)(C)(4)	Manage mercury-added novelties, whose only mercury is contained in mercury switches, pursuant to the requirements of subsection (c)(5)(B) of this section.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(5)(C)(4)(a)	A universal waste handler may manage mercury switches removed from mercury-added novelties as mercury switches.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.
				66273.33(c)(5)(C)(4)(b)	A universal waste handler shall comply with subsection (c)(7) of this section, if removing a mercury switch from a mercury-added novelty.			X		Mercury added novelties fall outside the scope of the federal definition for MCE. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally. See the mercury-containing equipment justification document for explanations on how mercury added novelties meet the criteria to add new wastes in 40 CFR 271.81 and why DTSC added them.
				66273.33(c)(5)(D)	Gas flow regulators. A universal waste handler shall manage gas flow regulators in accordance with the requirements of subsection (c)(6)(C) of this section and with all of the following requirements:			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(D)(1)	Ensure that gas flow regulators are kept upright at all times during accumulation and transportation.			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader In Scope	Justifications
				66273.33(c)(5)(D)(2)	Place each gas flow regulator into an airtight container or package that is structurally sound, adequate to prevent breakage, and compatible with the contents of the gas flow regulator. The container or package shall remain closed and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(D)(3)	Ensure that a mercury clean-up system is readily available to transfer immediately any mercury resulting from spills or leaks from gas flow regulators, to an airtight container that meets the requirements of subsection (c)(5)(D)2. of this section.			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(E)	Mercury counterweights and dampers. A universal waste handler shall manage mercury counterweights and dampers in accordance with the requirements of subsections (c)(6)(B) and (c)(6)(C) of this section and with all of the following requirements:			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(E)(1)	Prior to shipping mercury counterweights and dampers to a recycler, pack them in a container, with packing materials adequate to prevent breakage during storage, handling, and transportation. The container shall be closed (except when mercury counterweights and dampers are added or removed), structurally sound, and compatible with the contents of the mercury counterweight or damper; and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(E)(2)	Ensure that a mercury clean-up system is readily available.			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.33(c)(5)(F)	Dilators and weighted tubing. A universal waste handler shall manage dilators and weighted tubing in accordance with the requirements of subsections (c)(6)(B) and (c)(6)(C) of this section, and with all of the following requirements:			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(F)(1)	Prior to shipping dilators and weighted tubing, pack them in a container with packing materials adequate to prevent breakage during storage, handling, and transportation. The container shall be closed (except when dilators and weighted tubing are added or removed), structurally sound, and compatible with the contents of the dilators and weighted tubing, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.			X		State categories of MCE Gas Flow Regulators, Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(5)(F)(2)	Ensure that a mercury clean-up system is readily available.			X		State categories of MCE Gas Flow Regulators, . Mercury Counterweights and Dampers, and Dilators and Weighted Tubing fall within the federal definition for MCE. State regulations have additional requirements not in federal MCE requirements. For more information on a comparison of state and federal MCE wastes, see the mercury containing equipment justification.
				66273.33(c)(6)	General requirements. A universal waste handler shall manage the mercury-containing equipment identified in subsection (c)(5) of this section in accordance with the following requirements, as specified in that subsection:			X		The MCE listed in (c)(5) are: thermostats, mercury switches, mercury-added novelties, gas flow regulators, mercury counterweights and dampers, and dilators and weighted tubing. All these wastes fall within the federal definition except mercury-added novelties. Novelties, however, meet the criteria to add new wastes listed in 40 CFR 273.81. See the attached Mercury Containing Equipment justification for a more detailed comparison of state and federal MCE, and an analysis of how novelties meet the 273.81 criteria. Unlike federal regulations, state regulations find that mercury added novelties are hazardous when discarded, regardless of whether they exhibit toxicity characteristics of mercury at the regulatory threshold. (see 22 CCR 66273.4 (b)(2), 66261.50.) Because mercury added novelties often do not contain enough mercury to be regulated as hazardous waste federally, state universal waste regulations often impose requirements on generators of novelties when such generators would be exempt federally.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.13(c)(1)	A small quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.	273.33(c)(1)	A large quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.	66273.33(c)(6)(A)	Place in a container any mercury-containing equipment with uncontained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall: be closed (except when mercury-containing equipment is added or removed), structurally sound, and compatible with the contents of the mercury-containing equipment; lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.	X				State citation, at a minimum, achieves same result as federal. The referenced state citation is equivalent to both federal small and large quantity handler citations
				66273.33(c)(6)(B)	Place into a sealed plastic bag in an airtight container, any mercury-containing equipment that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall: be closed (except when mercury-containing equipment is added or removed), structurally sound, and compatible with the contents of the mercury-containing equipment; and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.			X		Federal regulations in 273.33(c) do not require a sealed plastic bag, only a closed container
273.13(c)(2)	A small quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:	273.33(c)(2)	A large quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:	66273.72(d)	Removing mercury ampules and/or mercury switches from mercury-containing equipment. A universal waste handler, who conducts one or more of the activities identified in subsection (d)(1) of this section, shall be deemed authorized by the Department to do so, provided the universal waste handler complies with the requirements specified in subsection (d)(2) of this section.			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.
273.13(c)(2)(i)	Removes and manages the ampules in a manner designed to prevent breakage of the ampules;	273.33(c)(2)(i)	Removes and manages the ampules in a manner designed to prevent breakage of the ampules;	66273.72(d)(2)(B)(1)	Remove the mercury ampules and/or the mercury switches in a manner designed to prevent their breakage.			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.13(c)(2)(ii)	Removes the ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);	273.33(c)(2)(ii)	Removes the ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);	66273.72(d)(2)(B)(2)	Remove the mercury ampules and/or the mercury switches only over, on, or in, a containment device (e.g., a tray or pan) sufficient to contain any liquid mercury that may be released to the environment (e.g., from a mercury ampule accidentally broken during removal).			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.
273.13(c)(2)(iii)	Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from that containment device to a container that meets the requirements of 40 CFR 262.34;	273.33(c)(2)(iii)	Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks of broken ampules from that containment device to a container that meets the requirements of 40 CFR 262.34;	66273.72(d)(2)(B)(3)	Ensure that a mercury clean-up system is readily available for immediately transferring from the containment device to an airtight container meeting the requirements of section 66262.34, any mercury spilled or leaked from broken mercury ampules and/or mercury switches.			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.
273.13(c)(2)(iv)	Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of 40 CFR 262.34;	273.33(c)(2)(iv)	Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of 40 CFR 262.34;	66273.72(d)(2)(B)(4)	Transfer immediately from the containment device to an airtight container meeting the requirements of section 66262.34, any mercury spilled or leaked from broken mercury ampules and/or mercury switches.			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.
273.13(c)(2)(v)	Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;	273.33(c)(2)(v)	Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;	66273.72(d)(2)(B)(5)	Ensure that the area in which mercury ampules and/or mercury switches are removed is well ventilated and monitored to ensure compliance with applicable Occupational Safety and Health Administration (OSHA) and CalOSHA exposure levels for mercury.			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.
273.13(c)(2)(vi)	Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;	273.33(c)(2)(vi)	Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;	66273.72(d)(2)(B)(6)	Ensure that employees removing mercury ampules and/or mercury switches are thoroughly familiar with proper handling and emergency procedures relevant to mercury and to the employees' responsibilities during normal facility operations and emergencies, including transfer of mercury from containment devices to appropriate containers.			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.
273.13(c)(2)(vii)	Stores removed ampules in closed, non-leaking containers that are in good condition;	273.33(c)(2)(vii)	Stores removed ampules in closed, non-leaking containers that are in good condition;	66273.72(d)(2)(B)(8)	Store removed mercury ampules and/or mercury switches in closed, non-leaking containers that are in good condition.			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.
273.13(c)(2)(viii)	Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;	273.33(c)(2)(viii)	Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;	66273.72(d)(2)(B)(7)	Pack in containers removed mercury ampules and/or mercury switches with packing materials adequate to prevent breakage of those ampules and/or switches during storage, handling, and transportation.			X		State citation, at a minimum, achieves same result as federal, however, state citation also includes mercury switches, which is not mentioned in the federal citations. The inclusion of mercury switches makes the citation more stringent because it is adding extra requirements.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.13(c)(3)	A small quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:	273.33(c)(3)	A large quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:	66273.33(c)(4)	Dental amalgams and/or pressure or vacuum gauges. A universal waste handler shall manage dental amalgams and/or pressure or vacuum gauges in a way that prevents releases of any universal waste or component of a universal waste to the environment under reasonably foreseeable conditions, and shall:			X		Pressure and vacuum gauges are within the scope of the federal MCE definition. Dental amalgams fall outside the scope of the federal MCE definition. See the attached mercury-containing equipment justification document for analysis on how dental amalgams were added to California's MCE definition, and how they meet the factors for adding a waste in 40 CFR 273.81. State regulations are more stringent because dental amalgams are generally not regulated on the federal level because they fall under the very small quantity generator exception. Under state regulations, if the amalgam is found to be hazardous, regardless of the amount, it would be subject to universal waste requirements.
273.13(c)(3)(i)	Immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and	273.33(c)(3)(i)	Immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and	66273.72(e)(2)(B)(3) 66273.72(e)(2)(B)(4) 66273.72(d)(2)(B)(3)	66273.72(e)(2)(B)(3) Transfer drained elemental mercury to a designated container immediately. The designated container shall be kept closed (except when adding or removing elemental mercury), be structurally sound, be compatible with elemental mercury, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. 66273.72(e)(2)(B)(4) Store drained elemental mercury in a container that meets the requirements of subsection (d)(2)(B)3. of this section. 66273.72(d)(2)(B)(3) Ensure that a mercury clean-up system is readily available for immediately transferring from the containment device to an airtight container meeting the requirements of section 66262.34, any mercury spilled or leaked from broken mercury ampules and/or mercury switches.	X				The requirements listed in 66273.72(e) are for draining liquid mercury from pressure devices and vacuum gauges, which do not contain an ampule. - The airtight requirement mentioned in 273.33(c)(3)(i) is for MCE containing an open original housing, which according to the federal register are devices that measure pressure such as a barometer. State requirements also require an airtight container for managing that particular type of MCE and lists it in 66273.72(e). - State citation achieves the same result as the federal citation
273.13(c)(3)(ii)	Follows all requirements for removing ampules and managing removed ampules under paragraph (c)(2) of this section; and	273.33(c)(3)(ii)	Follows all requirements for removing ampules and managing removed ampules under paragraph (c)(2) of this section; and	66273.33(c)(7)	Treatment. A universal waste handler, who treats any mercury-containing equipment (e.g., removes ampules and mercury switches, drains pressure or vacuum gauges), shall comply with the applicable requirements of article 7 of this chapter in addition to the requirements of subsection (c) of this section with respect to the mercury-containing equipment.	X				State citation is equivalent to the federal regulations for large quantity handlers. - The requirements for removing ampules and managing removed ampules under paragraph (c)(2) of 273.33 are analogous to the treatment requirements stated in 66273.33(c)(7). - 66273.33(c)(7) states the handler must comply with article 7 of chapter 23, which gives requirements on how to remove and manage ampules.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.13(c)(4)	(i) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C:	273.33(c)(4)(i)	(i) A large quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C:	66273.33(c)(6) 66273.33(c)(6)(C) 66273.33(c)(6)(C)(1)	General requirements. A universal waste handler shall manage the mercury-containing equipment identified in subsection (c)(5) of this section in accordance with the following requirements, as specified in that subsection: Characterize residuals as follows: Determine whether the following exhibit a characteristic of hazardous waste identified in article 3 of chapter 11 of this division:	X				State citation is equivalent to federal regulations for both small and large quantity handlers.
273.13(c)(4)(i)(A)	Mercury or clean-up residues resulting from spills or leaks and/or	273.33(c)(4)(i)(A)	Mercury or clean-up residues resulting from spills or leaks and/or	66273.33(c)(6)(C)(1)(a)	Mercury or clean-up residues resulting from spills or leaks; and/or	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.13(c)(4)(i)(B)	Other solid waste generated as a result of the removal of mercury-containing ampules or housings (e.g., the remaining mercury-containing device).	273.33(c)(4)(I)(B)	Other solid waste generated as a result of the removal of mercury-containing ampules or housings (e.g., the remaining mercury-containing device).	66273.33(c)(6)(C)(1)(b)	Other wastes generated as a result of handling mercury-containing equipment.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.13(c)(4)(ii)	If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it in compliance with 40 CFR part 262.	273.33(c)(4)(ii)	If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it in compliance with 40 CFR part 262.	66273.33(c)(6)(C)(2)	If the mercury, residues, and/or other wastes exhibit a characteristic of hazardous waste, the universal waste handler shall manage the wastes in compliance with all applicable requirements of this division. The universal waste handler is considered the generator of the mercury, residues, and/or other wastes and shall manage them pursuant to chapter 12 of this division.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.13(c)(4)(iii)	If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.	273.33(c)(4)(iii)	If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.	66273.33(c)(6)(C)(3)	If the mercury, residues, and/or other wastes do not exhibit a characteristic of hazardous waste, the universal waste handler may manage the wastes in any way that complies with all applicable federal, state and local solid waste regulations.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.13(d)	Lamps. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:	273.33(d)	Lamps. A large quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:	66273.33(b)	Lamps (including M003 wastes that contain lamps). A universal waste handler shall manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.13(d)(1)	A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.	273.33(d)(1)	A large quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.	66273.33(b)(1)	A universal waste handler shall contain any lamp in a container or package that is structurally sound, adequate to prevent breakage, and compatible with the contents of the lamp. Such a container or package shall remain closed and shall lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.13(d)(2)	A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.	273.33(d)(2)	A large quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.	66273.33(b)(2)	A universal waste handler shall immediately clean up and place in a container any lamp that is broken and shall place in a container any lamp that shows evidence of leakage or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers shall be closed, structurally sound, compatible with the contents of the lamps and shall lack evidence of leakage, spillage, or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
				66273.33(b)(3)	A universal waste handler may remove a lamp from a product or structure, provided the universal waste handler removes the lamp in a manner designed to prevent breakage.			X		State regulations manage removal activities of lamps, whereas, federal regulations do not mention any removal activities. This makes state regulations more stringent
273.14	A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:	273.34	A large quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:	66273.34	Except as otherwise provided in subsection (g) of this section, a universal waste handler shall label or mark universal waste to identify the type of universal waste as specified in subsections (a) through (f) of this section.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.14(a)	Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste—Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies);"	273.34(a)	Universal waste batteries (i.e., each battery), or a container or tank in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste—Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies);"	66273.34(a)	Batteries (i.e., each battery), or a container in which the batteries are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste-Battery(ies)".	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.14(b)	A container, (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in 40 CFR 273.3(a)(1) are contained must be labeled or marked clearly with:	273.34(b)	A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in 40 CFR 273.3(a)(1) are contained must be labeled or marked clearly with:		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.14(b)(1)	The label that was on or accompanied the product as sold or distributed; and	273.34(b)(1)	The label that was on or accompanied the product as sold or distributed; and		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.14(b)(2)	The words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s);"	273.34(b)(2)	The words "Universal Waste—Pesticide(s)" or "Waste—Pesticide(s);"		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.14(c)	A container, tank, or transport vehicle or vessel in which unused pesticide products as described in 40 CFR 273.3(a)(2) are contained must be labeled or marked clearly with:	273.34(c)	A container, tank, or transport vehicle or vessel in which unused pesticide products as described in 40 CFR 273.3(a)(2) are contained must be labeled or marked clearly with:		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.14(c)(1)(i)	The label that was on the product when purchased, if still legible;	273.34(c)(1)(i)	The label that was on the product when purchased, if still legible;		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.14(c)(1)(ii)	If using the labels described in paragraph (c)(1)(i) of this section is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;	273.34(c)(1)(ii)	If using the labels described in paragraph (c)(1)(i) of this section is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.14(c)(1)(iii)	If using the labels described in paragraphs (c)(1) (i) and (ii) of this section is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; and	273.34(c)(1)(iii)	If using the labels described in paragraphs (c) (1)(i) and (1)(ii) of this section is not feasible, another label prescribed or designated by the pesticide collection program; and		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.14(c)(2)	The words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)."	273.34(c)(2)	The words "Universal Waste—Pesticide(s)" or "Waste—Pesticide(s)."		Not adopted as universal waste			X		Hazardous waste pesticides are subject to full hazardous waste regulation requirements outlined in California Code of Regulations, title 22, division 4.5, chapters 10, 12 through 16, 18, 20 and 22. They cannot be managed as universal waste in California.
273.14(d)(1)	(1) Universal waste mercury-containing equipment (i.e., each device), or a container in which the equipment is contained, must be labeled or marked clearly with any of the following phrases: "Universal Waste—Mercury Containing Equipment," "Waste Mercury-Containing Equipment," or "Used Mercury-Containing Equipment."	273.34(d)(1)	Mercury-containing equipment (i.e., each device), or a container in which the equipment is contained, must be labeled or marked clearly with any of the following phrases: "Universal Waste—Mercury Containing Equipment," "Waste Mercury-Containing Equipment," or "Used Mercury-Containing Equipment."	66273.34(b)	Mercury-containing equipment (i.e., each individual mercury-containing equipment), or a container in which the mercury-containing equipment is contained, shall be labeled or marked clearly with the following phrase: "Universal Waste -Mercury-Containing Equipment".	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.14(d)(2)	A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: "Universal Waste—Mercury Thermostat(s)," "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)."	273.34(d)(2)	A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: "Universal Waste—Mercury Thermostat(s)," "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)."	66273.34(b)	Mercury-containing equipment (i.e., each individual mercury-containing equipment), or a container in which the mercury-containing equipment is contained, shall be labeled or marked clearly with the following phrase: "Universal Waste -Mercury-Containing Equipment".	X				While there is not an equivalent federal citation, 66273.34(b) captures this subsection since "mercury containing equipment" defined in 66273.33 includes thermostats.
273.14(e)	Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)".	273.34(e)	Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with any one of the following phrases: "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)".	66273.34(c)	Lamps (including M003 wastes that contain lamps) (i.e., each lamp), or a container or package in which the lamps are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste-Lamp(s)".	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.15(a)	A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of paragraph (b) of this section are met.	273.35(a)	A large quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of paragraph (b) of this section are met.	66273.35(a)	A universal waste handler shall accumulate universal waste for no longer than one year from the date the universal waste was generated, or was received from another universal waste handler.			X		State regulations are more stringent - Federal regulations have an exemption to the one year rule, whereas state regulations do not.
273.15(b)	A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.	273.35(b)	A large quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.		No analogous citation.			X		Under no circumstances may a universal waste handler accumulate universal waste for longer than one year and must comply with the requirement discussed in 22 CCR 66273.35(a) above.
273.15(c)	A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:	273.35(c)	A large quantity handler of universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:	66273.35(b)	A universal waste handler shall be able to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received. The universal waste handler may make this demonstration by:	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.15(c)(1)	Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;	273.35(c)(1)	Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;	66273.35(b)(1)	Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.15(c)(2)	Marking or labeling each individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;	273.35(c)(2)	Marking or labeling the individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;	66273.35(b)(2)	Marking or labeling the individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.15(c)(3)	Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;	273.35(c)(3)	Maintaining an inventory system on-site that identifies the date the universal waste being accumulated became a waste or was received;	66273.35(b)(3)	Maintaining an inventory system onsite that identifies the date the universal waste being accumulated became a waste or was received;	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.15(c)(4)	Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;	273.35(c)(4)	Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;	66273.35(b)(4)	Maintaining an inventory system onsite that identifies the earliest date that any universal waste in a group of items of universal waste or a group of containers of universal waste became a waste or was received;	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.15(c)(5)	Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or	273.35(c)(5)	Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or	66273.35(b)(5)	Placing the universal waste in a specific accumulation area and marking or labeling the area to identify the earliest date that any universal waste in the area became a waste or was received; or	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.15(c)(6)	Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.	273.35(c)(6)	Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.	66273.35(b)(6)	Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it became a waste or was received.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.16	A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.	273.36	A large quantity handler of universal waste must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.	66273.36(a)	A universal waste handler shall ensure that all personnel who manage universal wastes at the universal waste handler's facility are thoroughly familiar with proper universal waste management and emergency response procedures relative to those persons' responsibilities, as specified in subsections (b) and (c) of this section.	X				California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.
				66273.36(a)(1)	For purposes of this section, "personnel who manage universal waste" means any persons who consolidate, sort, treat, recycle, package for transport, offer for transport, or physically relocate containers of universal waste.	X				California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.36(a)(2)	Persons who, in the course of their normal duties, only generate universal wastes from onsite sources and place them into accumulation containers, areas or locations are not "personnel who manage universal waste" (e.g., an office worker who removes spent batteries from an electronic device).	X				California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that Initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.
				66273.36(b)	A universal waste handler shall initially train and provide annually, thereafter, training to all personnel who manage or who supervise those who manage universal wastes. Training materials shall be in the form of any written media (e.g., brochures, electronic mail, company letters, pamphlets, posters, etc.) and shall include the date of that material. This training shall include, at a minimum:			X		California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that Initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader In Scope	Justifications
				66273.36(b)(1)	The types and hazards associated with the universal waste that personnel may manage at the facility (e.g., hazards due to leaded glass in CRT devices or CRTs);			X		California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.
				66273.36(b)(2)	The proper disposition of universal wastes managed at the facility (e.g., the locations of universal waste containers, or the location of a centralized universal waste accumulation area);			X		California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.36(b)(3)	The proper procedures for responding to releases of universal wastes (e.g., spilled CRT glass) including the position titles and the means of contacting those personnel at the facility who are designated to respond to reports of releases (e.g., spilled CRT glass) and/or to respond to questions received from other personnel at the facility; and			X		California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that Initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.
				66273.36(b)(4)	The applicable requirements contained in this chapter regarding labeling, collecting, handling, consolidating, and shipping universal wastes at the facility, including, but not limited to, the prohibition on the disposal of universal wastes, and for personnel involved in shipping universal wastes who are "hazmat employees", as defined in 49 Code of Federal Regulations section 171.8, the applicable requirements prescribed in 49 Code of Federal Regulations section 172.704.			X		California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that Initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.36(c)	The universal waste handler shall maintain a written record by date (e.g., a list of personnel who have received either initial or annual training information) indicating the names of personnel who received the information specified in subsection (b) of this section.			X		California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.
				66273.36(d)	The universal waste handler shall maintain the record specified in subsection (c) of this section for at least three years from the date the person last managed any universal waste at the facility. The record of training for a "hazmat employee", as defined in 49 Code of Federal Regulations section 171.8, shall meet the applicable requirements of 49 Code of Federal Regulations section 172.704(d). The training record may accompany a person who is transferred within the same company.			X		California's personnel training requirements are equivalent to, and in certain respects more stringent than, federal requirements. Although California regulations do allow a small exception for persons who only generate universal wastes from onsite sources and put them into accumulation containers in 66273.36(a)(2), because California training requirements for personnel achieve the same overall protective aim as federal regulations, the state regulations are functionally equivalent to state regulations. This reasoning was agreed with by US EPA per an email on 6/12/19 stating that initial staff review indicates that this single provision would not warrant a less stringent designation for California's UW program. Staff reviewers intend to recommend a "functional equivalence" determination for the totality of the controls that California has in place for ensuring Universal Wastes are properly handled. - The state's requirements for universal waste handlers in 66273.36(b), 66273.36(c), & 66273.36(d) are more stringent because the add requirements to handlers that the federal regulations do not.

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.17(a)	A small quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.	273.37(a)	A large quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.	66273.37(a)	A universal waste handler shall immediately contain all releases of universal wastes and of residues from universal wastes to the environment.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.17(b)	A small quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the material resulting from the release, and must manage it in compliance with 40 CFR part 262.	273.37(b)	A large quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the material resulting from the release, and is subject to 40 CFR part 262.	66273.37(b)	A universal waste handler shall determine whether any material resulting from such a release is a hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of this division. The universal waste handler is considered the generator of the hazardous waste resulting from the release, and is subject to the requirements of chapter 12.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
				66273.37(c)	Hazardous waste consisting only of residues of leaking, broken, or otherwise damaged universal waste may be managed as universal waste provided that the leaking, broken, or otherwise damaged universal waste is repackaged according to the standards of section 66273.33 or 66273.33.5.	X				State language is clarifying that residues from leaking, broken or damaged universal waste can still be managed as universal waste as long a hazard waste determination is conducted after the spill has been cleaned up. - 66273.37(c) relates to 66273.37(b) as they both require a hazardous waste determination to determine how the waste must be managed.
273.18(a)	A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.	273.38(a)	A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.	66273.38(a)	A universal waste handler is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.18(b)	If a small quantity handler of universal waste self-transports universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of subpart D of this part while transporting the universal waste.	273.38(b)	If a large quantity handler of universal waste self-transports universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of subpart D of this part while transporting the universal waste.	66273.38(b)	If a universal waste handler self-transports universal waste offsite, the universal waste handler becomes a universal waste transporter for those self-transportation activities and shall comply with the transporter requirements of article 5 of this chapter while transporting the universal waste.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
273.18(c)	If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR parts 171 through 180, a small quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 through 180;	273.38(c)	If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 through 180, a large quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 through 180;	66273.38(c)	If a universal waste being offered for offsite transportation meets the definition of hazardous material pursuant to 49 CFR parts 171 through 180, a universal waste handler shall package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations pursuant to 49 CFR parts 172 through 180;	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.18(d)	Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.	273.38(d)	Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.	66273.38(d)	Prior to sending a shipment of universal waste to another universal waste handler or to a destination facility, the originating universal waste handler shall ensure that the receiving universal waste handler or destination facility agrees (e.g., verbal or written communication) to receive the shipment.			X		66273.38(d) applies to handlers and destination facilities, whereas, federal regulations only require notification to the handler
273.18(e)	If a small quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:	273.38(e)	If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:	66273.38(e)	If a universal waste handler sends a shipment of universal waste to another universal waste handler or to a destination facility and the shipment is rejected by the receiving universal waste handler or destination facility, the originating universal waste handler shall either:	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.18(e)(1)	Receive the waste back when notified that the shipment has been rejected, or	273.38(e)(1)	Receive the waste back when notified that the shipment has been rejected, or	66273.38(e)(1)	Receive the universal waste back when notified that the shipment has been rejected; or	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.18(e)(2)	Agree with the receiving handler on a destination facility to which the shipment will be sent.	273.38(e)(2)	Agree with the receiving handler on a destination facility to which the shipment will be sent.	66273.38(e)(2)	Agree with the receiving universal waste handler on a destination facility to which the shipment will be sent.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.18(f)	A small quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:	273.38(f)	A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:	66273.38(f)	A universal waste handler may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that the universal waste handler has received from another universal waste handler. If a universal waste handler rejects a shipment or a portion of a shipment, the universal waste handler shall contact and notify the originating universal waste handler of the rejection and to discuss reshipment of the load. The universal waste handler shall:	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.18(f)(1)	Send the shipment back to the originating handler, or	273.38(f)(1)	Send the shipment back to the originating handler, or	66273.38(f)(1)	Send the shipment back to the originating universal waste handler; or	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader In Scope	Justifications
273.18(f)(2)	If agreed to by both the originating and receiving handler, send the shipment to a destination facility.	273.38(f)(2)	If agreed to by both the originating and receiving handler, send the shipment to a destination facility.	66273.38(f)(2)	If agreed to by both the originating and receiving universal waste handler, send the shipment to a destination facility.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.18(g)	If a small quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the appropriate regional EPA office of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The EPA regional office will provide instructions for managing the hazardous waste.	273.38(g)	If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the appropriate regional EPA office of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The EPA regional office will provide instructions for managing the hazardous waste.	66273.38(g)	If a universal waste handler receives as universal waste, a shipment containing hazardous waste that is not a universal waste, the universal waste handler shall immediately notify the Department of the illegal shipment, and provide the name, address, and telephone number of the originating shipper. The Department will provide instructions for managing the hazardous waste.	X				Universal waste handlers only need to contact DTSC and not the EPA because DTSC is authorized by the EPA to administer the base hazardous waste program. Therefore, if anyone tried to illegally dispose hazardous waste in an unauthorized location, they would be subject to hazardous waste regulations enforced by DTSC. It would not be subject to Chapter 23 requirements. Therefore, notification to DTSC in lieu of EPA is sufficient.
273.18(h)	If a small quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.	273.38(h)	If a large quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.	66273.38(h)	If a universal waste handler receives as universal waste, a shipment of nonhazardous waste, the universal waste handler shall manage the nonhazardous waste in any way that is in compliance with applicable federal, state and local solid waste regulations.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.19	A small quantity handler of universal waste is not required to keep records of shipments of universal waste.	273.39(a)	Receipt of shipments. A large quantity handler of universal waste must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste received must include the following information:	66273.39(a)	Receipt of shipments. A universal waste handler shall keep a record of each shipment of universal waste received at the universal waste handler's facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received shall include the following information:	X				State regulations are equivalent to large quantity handler federal regulations, however, state regulations are more stringent than federal small quantity generator regulations.
		273.39(a)(1)	The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;	66273.39(a)(1)	The name and address of the originating universal waste handler from which the universal waste was sent;	X				State regulations are equivalent to large quantity handler federal regulations, however, state regulations are more stringent than federal small quantity generator regulations.
		273.39(a)(2)	The quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats);	66273.39(a)(2)	The quantity [count or weight, consistent with, for example, section 66273.32, subsection (d)] of each type of universal waste received (e.g., batteries, thermostats, lamps, electronic devices, CRTs, CRT glass); and	X				State regulations are equivalent to large quantity handler federal regulations, however, state regulations are more stringent than federal small quantity generator regulations.
		273.39(a)(3)	The date of receipt of the shipment of universal waste.	66273.39(a)(3)	The date of receipt of the shipment of universal waste.	X				State regulations are equivalent to large quantity handler federal regulations, however, state regulations are more stringent than federal small quantity generator regulations.

220

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
				66273.39(b)	For purposes of compliance with subsection (a) of this section, a universal waste handler who receives universal wastes from household generators and conditionally exempt small quantity universal waste generators, as defined in section 66273.9, may	X				These sections offer an alternative to requirements that already exist and apply to facilities that are already regulated, that this is not expanding the regulated community. Rather, this achieves an alternative but equivalent effect.
				66273.39(b)(1)	in lieu of the originating universal waste handler's name and address, record "household generator" and/or "CESQUWG", and	X				These sections offer an alternative to requirements that already exist and apply to facilities that are already regulated, that this is not expanding the regulated community. Rather, this achieves an alternative but equivalent effect.
				66273.39(b)(2)	record the total quantity of each type of universal waste as an aggregate from households and/or conditionally exempt small quantity universal waste generators, as defined in section 66273.9.	X				These sections offer an alternative to requirements that already exist and apply to facilities that are already regulated, that this is not expanding the regulated community. Rather, this achieves an alternative but equivalent effect.
		273.39(b)	Shipments off-site. A large quantity handler of universal waste must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste sent must include the following information:	66273.39(c)	Shipments offsite. A universal waste handler shall keep a record of each shipment of universal waste sent from the universal waste handler's facility to another facility. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent shall include the following information:	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
		273.39(b)(1)	The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;	66273.39(c)(1)	The name and address of the universal waste handler or destination facility to which the universal waste was sent;	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
		273.39(b)(2)	The quantity of each type of universal waste sent (e.g., batteries, pesticides, thermostats);	66273.39(c)(2)	The quantity [count or weight, consistent with, for example, section 66273.32, subsection (d)] of each type of universal waste sent (e.g., batteries, thermostats, lamps, electronic devices, CRTs, CRT glass);	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
		273.39(b)(3)	The date the shipment of universal waste left the facility.	66273.39(c)(3)	The date of departure of the shipment of universal waste.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
		273.39(c)	Record retention.	66273.39(d)	Record retention.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations

Federal RCRA Citation for Small Quantity Handlers		Federal RCRA Citation for Large Quantity Handlers		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justifications
		273.39(c)(1)	A large quantity handler of universal waste must retain the records described in paragraph (a) of this section for at least three years from the date of receipt of a shipment of universal waste.	66273.39(d)(1)	A universal waste handler shall retain each record described in subsection (a) of this section for at least three years from the date of receipt of the corresponding shipment of universal waste.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
		273.39(c)(2)	A large quantity handler of universal waste must retain the records described in paragraph (b) of this section for at least three years from the date a shipment of universal waste left the facility.	66273.39(d)(2)	A universal waste handler shall retain each record described in subsection (c) of this section for at least three years from the date of departure of the corresponding shipment of universal waste.	X				State language achieves same result as federal. The referenced state citations are at a minimum equivalent to the reference federal citations
273.20	A large quantity handler of universal waste who sends universal waste to a foreign destination is subject to the requirements of 40 CFR part 262, subpart H.	273.40	A large quantity handler of universal waste who sends universal waste to a foreign destination is subject to the requirements of 40 CFR part 262, subpart H.	66273.40(a) 66273.40(a)(1)	Universal waste handler requirements. A universal waste handler who sends universal waste to a foreign destination is subject to the requirements of 40 Code of Federal Regulations part 262, subpart H and article 8 of chapter 12 of this division.	X				The state notification regulations, while requiring notification to more than one party, achieve essentially the same purpose as the federal regulations. This citation is equivalent.
				66273.40(e)	Export requirements for universal waste transporters are set forth in article 5 of this chapter.	X				There are no requirements in article 5 of chapter 23 that make the state citation more stringent or broader in scope than the federal export guidelines for transporters. Both federal and state regulations require universal waste transporters to follow the requirements of 40 CFR part 262, subpart H.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.50	This subpart applies to universal waste transporters (as defined in §273.9).	66273.50	This article applies to universal waste transporters (as defined in section 66273.9).	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
273.51	A universal waste transporter is:	66273.51	A universal waste transporter is:	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
273.51(a)	Prohibited from disposing of universal waste; and	66273.51(a)	Prohibited from disposing of universal waste;	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
273.51(b)	Prohibited from diluting or treating universal waste, except by responding to releases as provided in 40 CFR 273.54.	66273.51(b)	Prohibited from diluting or treating universal waste, except as a consequence of responding to a release as provided in section 66273.54;	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
		66273.51(c)	Prohibited from transporting more than five CRTs at any one time unless the CRTs are contained as described in section 66273.33.5, subsection (b)(1)(B); and			X		State regulations have more prohibitions that federal regulations. - Federal regulations do not have a numeric max on how many CRTs can be transported at once
		66273.51(d)	Prohibited from transporting more than 100 kilograms or 220 pounds of electronic devices at any one time unless the electronic devices are contained as described in section 66273.33.5, subsection (a)(1)(B).			X		State regulations have more prohibitions that federal regulations. - Federal regulations do not have a numeric max on weight of electronic devices that be can transported at once

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.52(a)	A universal waste transporter must comply with all applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 for transport of any universal waste that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR part 262. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste under the Department of Transportation regulations.	66273.52(a)	A universal waste transporter shall comply with all applicable U.S. Department of Transportation (DOT) regulations in 49 CFR parts 171 through 180 for transport of any universal waste that meets the definition of a hazardous material in 49 CFR 171.8. For purposes of DOT regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of USEPA specified in 40 CFR part 262. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste pursuant to DOT regulations.	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
273.52(b)	Some universal waste materials are regulated by the Department of Transportation as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste shipments do not require a manifest under 40 CFR 262, they may not be described by the DOT proper shipping name "hazardous waste, (l) or (s), n.o.s.", nor may the hazardous material's proper shipping name be modified by adding the word "waste".	66273.52(b)	Some universal waste materials are regulated by DOT as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste shipments do not require a manifest pursuant to chapter 12, they shall not be described by the DOT proper shipping name "hazardous waste, (l) or (s), n.o.s.", nor shall the hazardous material's proper shipping name be modified by adding the word "waste".	X				State citation achieves same result as federal. The state citation only needs to reference chapter 12 and not 40 CFR 262 because DTSC is authorized by the US EPA to administer federal hazardous waste program, in lieu of the US EPA and chapter 12 is the same as 40 CFR 262.
273.53(a)	A universal waste transporter may only store the universal waste at a universal waste transfer facility for ten days or less.	66273.53(a)	A universal waste transporter shall only store universal waste at a universal waste transfer facility for ten days or less in an area zoned "industrial" and for six days or less in all other areas.			X		State is more stringent because it gives storage requirements for "industrial" and "all other areas", whereas the federal citation says ten days or less for all
273.53(b)	If a universal waste transporter stores universal waste for more than ten days, the transporter becomes a universal waste handler and must comply with the applicable requirements of subparts B or C of this part while storing the universal waste.	66273.53(b)	If a universal waste transporter stores a universal waste for more than ten days in an area zoned "industrial" or for more than six days in any other area, the transporter becomes a universal waste handler with respect to that universal waste and shall comply with the applicable requirements of article 3 of this chapter while storing the universal waste.			X		State is more stringent because it gives storage requirements for "industrial" and "all other areas", whereas the federal citation says ten days or less for all

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.54(a)	A universal waste transporter must immediately contain all releases of universal wastes and other residues from universal wastes.	66273.54(a)	A universal waste transporter shall immediately contain all releases of universal wastes and of residues from universal wastes to the environment.	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
273.54(b)	A universal waste transporter must determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of 40 CFR parts 260 through 272. If the waste is determined to be a hazardous waste, the transporter is subject to 40 CFR part 262.	66273.54(b)	A universal waste transporter shall determine whether any material resulting from such a release is a hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of this division. The universal waste transporter is considered the generator of any hazardous waste resulting from the release, and is subject to the requirements of chapter 12.	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
		66273.54(c)	Hazardous waste consisting only of residue of leaking, broken, or otherwise damaged universal waste may be managed as universal waste provided that the leaking, broken, or otherwise damaged universal waste is repackaged according to the standards of section 66273.33 or 66273.33.5.	X				State Language is equivalent to federal. The intent of the provision was to clarify that facilities would have to clean up spills resulting from residue of universal wastes and then do a hazardous waste characterization to determine whether the residue can still be managed as universal waste or must be managed as hazardous waste. - DTSC's Universal Waste Rule - Final Statement of Reasons document (Universal Waste Rule (R-97-08) – OEARA_REGS_UWR_FSOR page 38) explains why DTSC added section 66273.54(c). Handlers and transporters would be able to manage broken and damaged universal wastes as universal wastes if they still met the requirements of regulations in chapter 23. If they do not meet universal waste requirements, they must be managed as full hazardous waste.
273.55(a)	A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.	66273.55(a)	A universal waste transporter is prohibited from transporting a universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste
273.55(b)	If the universal waste being shipped off-site meets the Department of Transportation's definition of hazardous materials under 49 CFR 171.8, the shipment must be properly described on a shipping paper in accordance with the applicable Department of Transportation regulations under 49 CFR part 172.	66273.55(b)	If the universal waste being shipped offsite meets the DOT definition of a hazardous material pursuant to 49 CFR section 171.8, the universal waste shall be properly described on a shipping paper in accordance with the applicable DOT regulations under 49 CFR part 172.	X				State language achieves same result as federal: - regulated community or waste stream is not being increased - Not more stringent because the State requires the same management options as US EPA when handling as a hazardous waste

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.56	A universal waste transporter transporting a shipment of universal waste to a foreign destination is subject to the requirements of 40 CFR part 262, subpart H.	66273.56	A universal waste transporter who transports universal waste to a foreign destination is subject to the requirements of 40 Code of Regulations part 262, subpart H and article 8 of chapter 12 of this division.	X				The state notification regulations, while requiring notification to more than one party, achieve essentially the same purpose as the federal regulations. This citation is equivalent.

Federal RCRA Citation		Analogous State Citation		Equivalent	Less Stringent	More Stringent	Broader in Scope	Justification
273.70	Persons managing universal waste that is imported from a foreign country into the United States are subject to the requirements of 40 CFR part 262 subpart H and the applicable requirements of this part, immediately after the waste enters the United States, as indicated in paragraphs (a) through (c) of this section:	66273.41(a)	A person who manages universal waste that is imported into the United States from a foreign country is subject to the requirements of 40 Code of Federal Regulations part 262, subpart H and article 8 of chapter 12 of this division, and the applicable requirements of 40 Code of Federal Regulations section 273.70 and this chapter, beginning immediately after the universal waste enters the United States, as indicated in subsections (a)(1) through (a)(3) of this section:	x				State citation is analogous to federal citation
273.70(a)	A universal waste transporter is subject to the universal waste transporter requirements of subpart D of this part.	66273.41(a)(1)	A universal waste transporter is subject to the universal waste transporter requirements of 40 Code of Federal Regulations part 273, subpart D and article 5 of this chapter.			x		State citation subjects both large and small quantity handers of universal waste to both federal and state requirements. - Article 5 has more stringent sections compared to federal regulations
273.70(b)	A universal waste handler is subject to the small or large quantity handler of universal waste requirements of subparts B or C, as applicable.	66273.41(a)(2)	A universal waste handler is subject to the universal waste handler requirements of 40 Code of Federal Regulations part 273, subparts B or C and article 3 of this chapter, as applicable.			x		State citation subjects both large and small quantity handlers of universal waste to both federal and state requirements. - Article 3 has more stringent sections compared to federal regulations
273.70(c)	An owner or operator of a destination facility is subject to the destination facility requirements of subpart E of this part.	66273.41(a)(3)	An owner or operator of a destination facility is subject to the destination facility requirements of 40 Code of Federal Regulations part 273, subpart E and article 6 of this chapter.			x		Line 3 of subpart E concerning destination facilities that recycle a UW without storing before it is recycled is more stringent. This allows this citation to be more stringent as well.

CalEPA
California Environmental Protection Agency

Gavin Newsom
Governor

Jared Blumenfeld
Secretary for Environmental Protection

Unified Program Newsletter – December 2019

Contents

State Water Board 1
Energy Policy Act Certification 1
Notice of Proposed Amendments to Underground Storage Tank Reporting Regulations and Opportunity to Provide Comment 2
UST Regulation Package for the Storage of Diesel Containing up to 20 Percent Biodiesel Submitted to the Office of Administrative Law for Review 2
Public Records and Red Tag Information Web Pages 3
DTSC 4
Hazardous Waste Tracking System User Survey 4
Don't Forget to Visit our Booth at the 22nd Annual California CUPA Conference 4

State Water Board

Energy Policy Act Certification

On November 8, 2019, the State Water Resources Control Board (State Water Board) issued a letter (Energy Policy Act Certification) to the Unified Program Agencies (UPAs) detailing the requirements of the underground storage tank (UST) inspection frequency of the Energy Policy Act of 2005 (EPAct) (https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/energy_policy_act_cert.pdf).

On an annual basis, the State Water Board is required to certify to the United States Environmental Protection Agency (U.S. EPA) compliance with the UST provisions of the EPAct. One of the EPAct provisions requires each state to certify an inspection has been conducted for each facility at least once every three years as required by the federal inspection frequency. At the direction of U.S. EPA, the California Environmental Reporting System (CERS) will be utilized to verify each UPA has complied with the federal UST inspection frequency of once every three years.

To verify compliance with the federal UST inspection frequency of once every three years, UPAs should run the *CERS UST Inspection Report* to identify missing inspections and/or inaccurate data. State Water Board staff strongly suggests UPAs run the *CERS UST Inspection Report* now and again in mid-December.

State Water Board staff will run the *CERS UST Inspection Report* on January 6, 2020, and send the results to the UPAs with what appears to be missing inspection data. No later than January 14, 2020, UPAs with missing inspection information are required to return the inspection spreadsheet to Ms. Jessica Botsford confirming the date of the inspection and the data in CERS has been corrected or detail the specific reason the inspection was not performed.

Information on the Energy Policy Act Certification (https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/energy_policy_act_cert.pdf) and how to run a CERS UST Inspection Report (https://www.waterboards.ca.gov/ust/adm_notices/cers_ust_inspection_reports.pdf) can be found on the UST Program's web page (https://www.waterboards.ca.gov/ust/).

For more information about the EPAct Certification, please contact Ms. Jessica Botsford at (916) 341-7338 or Jessica.Botsford@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Notice of Proposed Amendments to Underground Storage Tank Reporting Regulations and Opportunity to Provide Comment

On November 1, 2019, the State Water Board distributed a Lyris email notifying UST stakeholders of proposed amendments to the California Code of Regulations, title 23, division 3, chapter 16, article 3 (UST Regulations) regarding reporting requirements and the opportunity to comment on the amendments. The proposed amendments modify the reporting requirements of owners and operators, and local agencies. The State Water Board also proposes to modify certification, inspection, and testing forms. The 45-day public comment period for the proposed UST Regulations ends on December 17, 2019, at noon. Any interested person may submit written comments relevant to the proposed UST Regulations to Ms. Jeanine Townsend, Clerk to the Board, by email at commentletters@waterboards.ca.gov, by fax at (916) 341-5620, or by mail or hand delivery addressed to:

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
P.O. Box 100, Sacramento, CA 95812-2000 (by mail); or
1001 I Street, 24th Floor, Sacramento, CA 95814 (by hand delivery).

More information on the rulemaking is available on the UST Program's Proposed UST Reporting Regulations web page (https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/repregs/index.html).

For additional information regarding the proposed UST Regulations, contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

UST Regulation Package for the Storage of Diesel Containing up to 20 Percent Biodiesel Submitted to the Office of Administrative Law for Review

On August 6, 2019, the State Water Board approved amendments to UST Regulations, sections 2631 and 2631.2, to facilitate a more streamlined approach to permitting the storage of diesel containing up to 20 percent biodiesel. On November 6, 2019, the Office of Administrative Law approved the amendments to the UST Regulations and filed the amendments with the Secretary of State. The effective date of the amendments is January 1, 2020.

As amended, UST Regulations, section 2631(m) provides that diesel containing up to 20 percent biodiesel meeting the American Society of Testing and Materials International standard D7467 shall be recognized as equivalent to conventional diesel for the purpose of complying with existing approval requirements for double-walled UST systems, unless any material or component of the UST system has been determined to not be compatible. In addition, section 2631.2 of the UST Regulations, which provided a temporary variance for biodiesel blends, is deleted from the UST Regulations because the temporary variance has expired and is no longer necessary.

UST owners/operators and UPAs should note the following requirements for changing from conventional diesel or B5 (5 percent biodiesel blend) to biodiesel blends up to and including 20 percent biodiesel (B20):

- **UST Owners/Operators:** The UST owner/operator must notify the UPA (Local Agency Directory) (http://cersapps.calepa.ca.gov/public/directory/) 30 days before any change in the substance stored, including changing from conventional diesel or B5 to diesel containing up to 20 percent biodiesel. The UST owner/operator also must make a new submittal in CERS to reflect the change in substance being stored.
- **UPAs:** UPAs must ensure that CERS has been updated by the UST owner/operator to reflect the change in the stored substance. UPAs also must review the current leak detection equipment installed onsite before the substance stored is changed to ensure it is appropriate for use with increased blends of biodiesel up to B20. Finally, UPAs must ensure UST system components meet the requirements of Health & Safety Code, chapter 6.7, section 25291 and approved for use with conventional diesel.

More information on the rulemaking is available on the UST Program's Proposed Biodiesel UST Regulations web page
(https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/bio_regs/).

For more information regarding these UST regulatory amendments please contact Ms. Laura Fisher at (916) 341-5870 or at Laura.Fisher@waterboards.ca.gov.

Public Records and Red Tag Information Web Pages

In addition to the UST inspection frequency certification above, the EPAct requires states to make public a summary of the number of current UST facilities, systems, inspections performed, and available data on unauthorized release sources and causes. On November 1, 2019, the State Water Board updated the Public Records Summary Information of Underground Storage Tanks web page
(https://www.waterboards.ca.gov/ust/leak_prevention/public_record_sum_info.html).

The reporting period for the summary is July 1, 2018, through June 30, 2019, and includes the percentage of UST systems in compliance during the first nine months using the U.S. EPA's new technical compliance rate performance measures.

Additionally, the State Water Board has created a Red Tag Data and Regulations web page (https://www.waterboards.ca.gov/ust/enforcement/red_tag_regs_index.html), which depicts the total number of red tags applied per year and the breakdown of the significant violations for which the red tags were affixed. This information will be updated annually and analyzed for significant violation trends.

For additional information regarding the public records and red tag web pages, please contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Mr. Steven Mullery at (916) 341-5508 or Steven.Mullery@waterboards.ca.gov.

DTSC

Hazardous Waste Tracking System User Survey

DTSC's Office of Environmental Information Management is upgrading the Hazardous Waste Tracking System (HWTS) interface. We are conducting a brief survey on the reporting functions and would appreciate your feedback. To take the survey, please go to HWTS User Survey. (https://www.surveymonkey.com/r/HWTSUS)

Don't Forget to Visit our Booth at the 22nd Annual California CUPA Conference

Stop by DTSC's booth at the 22nd Annual California CUPA Training Conference in Burlingame, CA from February 3-6, 2020 for resources on federal EPA and State ID numbers, and e-Manifest. (https://calcupa.org/conference/index.html)

References or links to information cited in this newsletter are subject to change. CalEPA is interested in your comments and suggestions regarding the Unified Program monthly newsletter. Please email your comments and suggestions to: cupa@calepa.ca.gov.

CalEPA Unified Program Home Page

CalEPA
California Environmental Protection Agency

Gavin Newsom
Governor

Jared Blumenfeld
Secretary for Environmental Protection

Unified Program Newsletter – January 2020

Contents

CalEPA 1
CERS Knowledge Base, Help Articles and FAQs 1
When should a facility's CERS ID number change? 1
Cal OES 1
Assembly Bill (AB) 1429 in effect January 1, 2020 1
State Water Board 1
Underground Storage Tank Biodiesel Regulations 1
Report 6 Due March 1, 2020 3
Monitoring Site Plan 3
Updates to Local Guidance Letters 113 and 162 4
Proposed Amendments to Underground Storage Tank Reporting Regulations 4
DTSC 4
2019 Biennial Report Cycle Now Open 4

CalEPA

CERS Knowledge Base, Help Articles and FAQs

(https://cers.calepa.ca.gov/newsletter-articles)

When should a facility's CERS ID number change?

(https://cers.calepa.ca.gov/wp-content/uploads/sites/11/2020/01/CERS-Newsletter-Article-Jan-2020.pdf)

Cal OES

Assembly Bill (AB) 1429 in effect January 1, 2020

Effective January 1, 2020, Assembly Bill (AB) 1429 went into effect and may change Hazardous Materials Business Plan (HMBP) reporting timeframes for facilities. Please see more information on the Cal OES website.
(https://www.caloes.ca.gov/FireRescueSite/Documents/HMBP%20AB%201429%20-%20Dec2019.pdf#search=ab%201429)

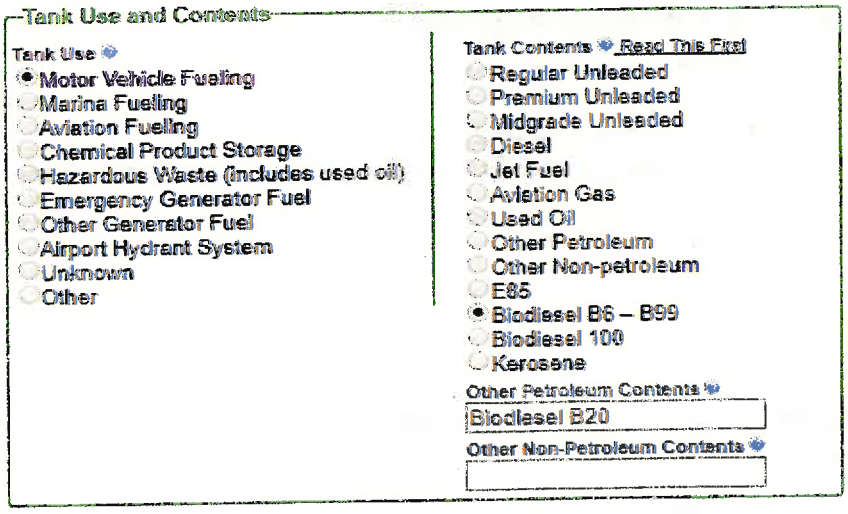
State Water Board

Underground Storage Tank Biodiesel Regulations

New regulations that govern the storage of biodiesel blends in underground storage tanks (USTs) became effective January 1, 2020. Diesel containing up to 20 percent biodiesel (B20) meeting the American Society of Testing and Materials International standard D7467 is now recognized as equivalent to conventional diesel for the purpose

of complying with existing approval requirements for double-walled UST systems, unless any material or component of the UST system has been determined to not be compatible with B20 (California Code of Regulations, title 23, division 3, chapter 16 (UST Regulations), article 3, sections 2631 and 2631.2).

Owners/operators are required to notify Unified Program Agencies (UPAs) 30 days prior to changing substances stored, including changes from B5 to B20. Owners/operators must also properly update the California Environmental Reporting System (CERS) to reflect the change in substances stored. For the storage of B20 in USTs, owners/operators shall select 'motor vehicle fueling' for the Tank Use, select 'Biodiesel B6 – B99' for the Tank Contents, and insert Biodiesel B20 the in the 'Other Petroleum Contents' box. Please see figure below.



UPAs must review the current release detection equipment installed before the substance stored is changed to ensure the UST system is appropriate for use with increased blends up to and including B20. Finally, UPAs must ensure UST system components meet the requirements of Health & Safety Code, chapter 6.7, section 25291 and are approved for use with conventional diesel.

The State Water Resources Control Board (State Water Board) distributed correspondence on December 6, 2019, to UPAs and other interested parties, addressing UST Regulations and is available at (https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/bio_regs/docs/b20_amendments.pdf).

For more information regarding how to update the storage of B20 in CERS, please contact Mr. Daniel Firth at (916) 341-5711 or Daniel.Firth@waterboards.ca.gov.

For more information regarding the UST Regulations please contact Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

Report 6 Due March 1, 2020

The State Water Board will soon distribute the Report 6 forms and instructions to all UPAs for the reporting period of July 1 through December 31, 2019. UPAs must submit Report 6 documents to State Water Board staff no later than March 1, 2020. The performance measures data from the Report 6 submittals is collected by the State Water Board, and the results are consolidated and reported to the United States Environmental Protection Agency (U.S. EPA). All states are required to provide UST performance measure data to the U.S. EPA, and national UST Performance Measure data is available on the U.S. EPA web site (https://www.epa.gov/ust/ust-performance-measures).

The "paper" Report 6 must be submitted by UPAs that have not transitioned to paperless reporting. UPAs approved for paperless reporting must run their Report 6 in CERS, verify their data, and submit a *Request/Certification for Paperless Report 6 Reporting* to the State Water Board by March 1, 2020. CERS 3.0 UST Program Reports now include Report 6 data totaling routine UST inspections and technical compliance rate violations. The State Water Board encourages those UPAs who have not been approved for paperless reporting to continue working to correct their data. To request paperless reporting for the next reporting period, see the State Water Board correspondence *Underground Storage Tank Report 6 Paperless Reporting Requirements* for more information (https://www.waterboards.ca.gov/ust/adm_notices/paperless_reporting_requirements.pdf).

For questions or assistance regarding paperless reporting, please contact Mr. Daniel Firth at (916) 341-5711 or Daniel.Firth@waterboards.ca.gov.

For more information regarding Report 6, please contact Mr. Steven Mullery at (916) 341-5850 or Steven.Mullery@waterboards.ca.gov, or Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov.

Monitoring Site Plan

The State Water Board continues to receive questions from UPAs on when to use the various site plans found in UST Regulations and what information needs to be included in CERS as part of the *UST Monitoring Site Plan* submittal. The State Water Board is addressing this question to assist the UPAs with consistency in application of these requirements. There are four variations of site plans found in UST Regulations, the most common of these are: the monitoring site plan (section 2632(d)); the site plan included as part of the monitoring certification form (Appendix IV); and the scaled or as-built diagram that are required as part of the application for the permit to operate (section 2711).

The CERS submittal requirements for the *UST Monitoring Site Plan* are defined in UST Regulations, section 2632(d)(1). The minimum requirements of this plan are "the location(s), as identified on a plot plan, where the monitoring will be performed". While a more detailed depiction could be submitted, this site plan is not the scaled or as-built diagram required as part of the application for the permit to operate.

For more information regarding monitoring site plans, please contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Mr. Sean Farrow at (916) 324-7493 or Sean.Farrow@waterboards.ca.gov.

Updates to Local Guidance Letters 113 and 162

In response to the recent addition of a new enhanced leak detection (ELD) method, local guidance (LG) 113 and 162 were updated to include the applicable ELD information (https://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/lgs/).

For more information regarding ELD, please contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Ms. Jessica Botsford at (916) 341-7338 or Jessica.Botsford@waterboards.ca.gov.

Proposed Amendments to Underground Storage Tank Reporting Regulations

On November 1, 2019, the State Water Board distributed a Lyris email notifying UST stakeholders of proposed amendments to the UST Regulations regarding reporting requirements and the opportunity to comment on the amendments. The proposed amendments modify the reporting requirements of owners/operators, and local agencies. The State Water Board also proposes to modify certification, inspection, and testing forms.

The public comment period for the proposed UST Regulations closed on December 17, 2019. State Water Board staff will respond to comments received and schedule another public comment period if modifications are made, or a Board Meeting to consider a resolution adopting the proposed amendments to the UST Regulations.

The proposed UST Regulations can be found on our web site (https://www.waterboards.ca.gov/water_issues/programs/ust/adm_notices/repregs/index.html).

For additional information regarding the proposed UST Regulations, please contact Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or Ms. Laura Fisher at (916) 341-5870 or Laura.Fisher@waterboards.ca.gov.

DTSC

2019 Biennial Report Cycle Now Open

The federal 2019 Biennial Hazardous Waste Report submittal is required from all handlers that generated over 2,200 pounds of RCRA or 2.2 pounds of acute RCRA hazardous waste during any one month in the 2019 calendar year. This requirement was determined by a handler's hazardous waste manifest records submitted to the U.S. EPA for the 2019 calendar year. California has transitioned to the U.S. EPA's RCRAInfo Biennial Report module for the 2019 report. DTSC has created two short training videos to assist handlers in registering with RCRAInfo (https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Frcrainfo.epa.gov%2Frcrainfoprod%2F&data=02%7C01%7C%7C274ee32d3dd143faa33008d79adb5f78%7C3f4ffbf4c7604c2abab8c63ef4

bd2439%7C0%7C0%7C637148139295047643&sdata=mRLOsUaaR3Kq%2FCaGHXU8lA9O7oGKk2wMZMBBQ3MVkm0%3D&reserved=0) and completing the Biennial Report online:

Quick and Easy MyRCRAid
(https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdtsc.ca.gov%2Fmyrcraid-training-video%2F&data=02%7C01%7C%7C274ee32d3dd143faa33008d79adb5f78%7C3f4ffbf4c7604c2abab8c63ef4bd2439%7C0%7C0%7C637148139295057641&sdata=ol10g2F1EfV5Sn%2BnTZdnyKJZ1TEEUZxryrMz8ClLVl0%3D&reserved=0)

Quick and Easy Biennial Report
(https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdtsc.ca.gov%2Fbiennial-report-training-video%2F&data=02%7C01%7C%7C274ee32d3dd143faa33008d79adb5f78%7C3f4ffbf4c7604c2abab8c63ef4bd2439%7C0%7C0%7C637148139295057641&sdata=tnvd1Lqwhe9R0uXPkoSKbaQlq5%2BIFFobuMBiBSuaYfw%3D&reserved=0)

The Biennial Report is due by March 1, 2020. For more information, please visit DTSC's Biennial Report page. If you have questions about the Biennial Report, please email brsstaff@dtsc.ca.gov.

References or links to information cited in this newsletter are subject to change. CalEPA is interested in your comments and suggestions regarding the Unified Program monthly newsletter. Please email your comments and suggestions to: cupa@calepa.ca.gov.

CalEPA Unified Program Home Page

CalEPA
California Environmental Protection Agency

Gavin Newsom
Governor

Jared Blumenfeld
Secretary for Environmental Protection

Unified Program Newsletter – February 2020

Contents

CalEPA 1
Jason Boetzer, New Assistant Secretary for Local Programs and Emergency Response 1
State Water Board 2
Complexities of Monitoring Piping Connected to Satellite Dispensers 2
Report 6 Due March 1, 2020 2
Cal FIRE OSFM 3
CAL FIRE Website 3
California Fire Code (California Code of Regulations, Title 24, Part 9) 4

CalEPA

Jason Boetzer, New Assistant Secretary for Local Programs and Emergency Response

CalEPA is pleased to announce that Jason Boetzer has been appointed as the new Assistant Secretary for Local Program Coordination and Emergency Response, a role he has been acting in since August, 2019. Jason will be the leader of all CalEPA's emergency activities as well as the state's implementation of the Unified Program and its 81 certified local agencies. Jason has more than 20 years of experience working in the environmental health field and 11 years as a manager/director implementing and leading environmental and public health programs at the state and local levels.
Before joining CalEPA, Jason served two years as Director of the Sacramento County Environmental Health Division. He also served 14 years in Calaveras County in various positions including Administrator of Calaveras County's Environmental Management Agency, while also serving as the Director of Environmental Health and the County Air Pollution Control Officer. In his prior position, he was a manager for the Calaveras County Environmental Health Department.

Jason holds a Bachelor of Science degree in Environmental and Public Health, from the University of Wisconsin Eau Claire. He is a Registered Environmental Health Specialist, Certified Underground and Above Ground Storage Tank Inspector and a Certified Hazardous Materials Technician.

Please join us in congratulating Jason on becoming a permanent part of the Office of the Secretary team.

State Water Board

Complexities of Monitoring Piping Connected to Satellite Dispensers

The State Water Resources Control Board (State Water Board) is taking this opportunity to remind Unified Program Agency (UPA) inspectors of the complexities associated with master and satellite dispensers often found at truck fueling facilities. A satellite dispenser is a secondary unit plumbed through the meter of a first dispenser, often called the master dispenser. The fuel from the submersible pump first goes through the master dispenser meter and then is directed back underground to the satellite dispenser allowing tanks on both sides of a vehicle to be simultaneously filled. It is critical to verify during the annual monitoring certification that the line leak detector is capable of monitoring the entire primary product line between the submersible pump and the satellite dispenser.

Equally important, secondarily contained lines between the master and satellite dispensers must be tested every 36 months or continuously monitored by vacuum, pressure or hydrostatic fluid. UPA inspectors must ensure service technicians performing testing of line leak detectors, secondary containment, or certifying a zone sensor that includes a satellite dispenser, ensure the portion of product line between the master and satellite dispenser is properly monitored.

For more information regarding the monitoring and testing of piping connected to satellite dispensers, please contact
Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov, or
Ms. Roya Raheb at (916) 341-5668 or Roya.Raheb@waterboards.ca.gov.

Report 6 Due March 1, 2020

The State Water Board recently distributed the Report 6 forms and instructions to all UPAs for the reporting period of July 1 through December 31, 2019. UPAs must submit Report 6 submittals to State Water Board staff no later than March 1, 2020. The underground storage tank (UST) performance measures data, from the Report 6 submittals is collected by the State Water Board, and the results are consolidated and reported to the United States Environmental Protection Agency (U.S. EPA). All states are required to provide UST performance measure data to the U.S. EPA, and national UST Performance Measure data is available on the U.S. EPA web site (https://www.epa.gov/ust/ust-performance-measures).

The "paper" Report 6 must be submitted by UPAs that have not transitioned to paperless reporting. UPAs approved for paperless reporting must run their Report 6 in CERS, verify their data, and submit a *Request/Certification for Paperless Report 6 Reporting* to the State Water Board by March 1, 2020. CERS 3.0 UST Program Reports include Report 6 data totaling routine UST inspections and technical compliance rate violations. The State Water Board encourages those UPAs who have not been approved for paperless reporting to continue working to correct their data. To request paperless reporting for the next reporting period, see the State Water Board correspondence *Underground Storage Tank Report 6 Paperless Reporting*

Requirements for more information
(https://www.waterboards.ca.gov/ust/adm_notices/paperless_reporting_requirements.pdf).

For questions or assistance regarding paperless reporting, please contact Mr. Daniel Firth at (916) 341-5711 or Daniel.Firth@waterboards.ca.gov.

For more information regarding Report 6, please contact Mr. Steven Mullery at (916) 341-5850 or Steven.Mullery@waterboards.ca.gov, or Mr. Tom Henderson at (916) 319-9128 or Tom.Henderson@waterboards.ca.gov.

Cal FIRE OSFM

CAL FIRE Website

New to the CAL FIRE-Office of the State Fire Marshal (OSFM) Aboveground Petroleum Storage Act (APSA) website (https://osfm.fire.ca.gov/divisions/pipeline-safety-and-cupa/certified-unified-program-agency-cupa/aboveground-petroleum-storage-act/) is the 'Frequently Asked Questions' section which contains links to information on APSA petroleum (https://osfm.fire.ca.gov/divisions/pipeline-safety-and-cupa/certified-unified-program-agency-cupa/aboveground-petroleum-storage-act/petroleum/) and tanks in underground areas (TIUGAs). (https://osfm.fire.ca.gov/divisions/pipeline-safety-and-cupa/certified-unified-program-agency-cupa/aboveground-petroleum-storage-act/tank-in-an-underground-area-tiuga/)

Contact the OSFM staff at cupa@fire.ca.gov if you want a document previously posted on the APSA or fire code Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statements (HMIS) website (http://osfm.fire.ca.gov/divisions/pipeline-safety-and-cupa/certified-unified-program-agency-cupa/), such as those listed below. OSFM will make every effort to provide documents in a timely manner once requested.

- APSA tank facility statement,
- APSA farm fact sheet,
- Optional notification form on tanks in underground areas (TIUGA), or
- Monthly inspection checklist for APSA tank facilities with less than 1,320 gallons of petroleum and has one or more TIUGAs.

The Tier II Qualified Facility Spill Prevention, Control, and Countermeasure (SPCC) Plan template is now available on the OSFM APSA website (refer to the 'Resources' section). Note the template must be downloaded and printed; it is not a fillable form.

California Fire Code (California Code of Regulations, Title 24, Part 9)
The 2019 California Fire Code is now in effect.

To view the 2019 California Fire Code online, you may visit the California Building Standards Commission website. (https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo)

Click on the 2019 edition and scroll down to Part 9 of the California Code of Regulations, Title 24.

Or you may visit the International Code Council's website.
(https://codes.iccsafe.org/content/CFC2019P1)

References or links to information cited in this newsletter are subject to change. CalEPA is interested in your comments and suggestions regarding the Unified Program monthly newsletter. Please email your comments and suggestions to: cupa@calepa.ca.gov.

CalEPA Unified Program Home Page

Agenda Item IX

ARTICLES OF INTEREST

The big issues in chemical recycling? They'll sound familiar - Plastics Recycling Update

Jared Paben

Holli Alexander of Eastman Chemical said collection unknowns are part of the current chemical recycling landscape. | Plastics Recycling Conference / Brian Adams Photography

When it comes to development and commercialization of chemical recycling technologies, interest is high. A chemical recycling workshop at last week's Plastics Recycling Conference and Trade Show was sold out, with over 300 attendees.

But the conversation made clear that many of the issues affecting chemical recycling companies are also faced by the mechanical recycling industry: the importance of securing appropriate feedstocks, establishing sustainable partnerships, and clearly communicating recycled content to consumers.

Several professionals involved in chemical recycling, also often called "advanced recycling," touched on those points during the Monday, Feb. 17 workshop in Nashville, Tenn.

Below are a few major takeaways from the session, which was presented by the American Chemistry Council, the Association of Plastic Recyclers and Closed Loop Partners.

Feeling out feedstocks

Speakers discussed challenges in securing feedstocks for chemical recycling processes.

Holli Alexander, strategic initiatives manager for global sustainability at Eastman Chemical, discussed the issue in relation to two of her company's processes: a conversion technique for mixed-plastic scrap and a depolymerization venture for polyester scrap.

Collection can be a paradox, Alexander said, because if there's a plastic that's being collected for mechanical recycling, then mechanical recycling is probably where that material should go anyway. But in looking at new streams that aren't being broadly collected today – such as carpet, textiles or flexible packaging – the collection and logistics economics are unknown. That being said, Eastman is sourcing recovered PET from California carpet recycling company Circular

Polymers to feed into Eastman's methanolysis process, a depolymerization technology.

"The bottom line is the biggest thing we know is that the economics are going to be confusing. It's going to be challenging," she said. "But, truthfully, it's going to take all of us collaborating to be able to make sure that we can come up with something that is impactful and actually creates a good solution."

Domenic Di Mondo, vice president of technology and business development at GreenMantra Technologies, noted his company can partner with existing waste management companies to purchase plastics that may be undervalued because they aren't suitable for mechanical recycling. That's because GreenMantra's catalytic selective depolymerization technology is insensitive to traditional quality requirements of melt flow, mixed colors, debris and moisture, he noted.

Bill Cooper, vice president of Agilyx, said that the traditional process of sorting, separating and cleaning recovered plastics doesn't work for his company, which uses a pyrolysis technology to produce a number of products from different polymers. "For us, there's too much cost there, and you end up with feedstock that's too expensive," he said.

The company has developed an integrated feedstock management system that understands what's in the stream from a chemical standpoint, he said. It's key to helping Agilyx process different materials into products meeting various specifications. Last year, the company partnered with GE to apply artificial intelligence to improve its systems.

"We're rolling our feedstock management system out nationally as we speak. It hasn't been formally announced. And we're supporting not only our technologies but third-party technologies as well," Cooper said.

Domenic Di Mondo from GreenMantra Technologies noted his company partners with waste companies that can supply lower-value plastics. | Plastics Recycling Conference / Brian Adams Photography

Forging lasting bonds

Other speakers hammered home the point that partnerships are key to success in the quickly evolving chemical recycling market.

Brightmark Energy uses a pyrolysis process to convert mixed plastics into fuel, oil and wax products. Bob Powell, CEO of Brightmark Energy, emphasized the importance of long-term, sustainable collaborations with material suppliers and others.

"We're looking for relationships that are not transactional, per se, but are repeat partnerships," he said.

Important considerations are whether the partners can grow alongside each other, whether their broader goals and values are aligned, and whether the deal is economically viable for both parties, he noted.

Lauren Versagli, who oversees corporate development for London-headquartered pyrolysis company Plastic Energy, said her company finds that its first role in a partnership is to inform the discussion on what chemical recycling is, what it's not, how it fits in and how it can advance the circular economy.

She also noted the importance of brand owners to creating demand pull through the whole value chain. She cited a collaboration in Europe that led to food packaging with recycled content. In that project, waste management company Renewi supplied the scrap plastic, Plastic Energy converted it into oil with its pyrolysis technology, SABIC processed the oil into new plastic, and Unilever created the final product.

Also important is to discuss what each stakeholder will invest at different points and how to maximize the value, Versagli said.

And, although it may seem obvious to do, ensuring there's strategic alignment often gets lost in the excitement of taking action, she said. Senior-level endorsement is critical, she said, as is ensuring different businesses units in a company are all on the same page.

Connecting with the consumer

When it comes to resin made from chemically recycled plastic, communicating recycled content details to a consumer may be trickier than it first appears.

That was a point made by Helmut Brenner, sustainability manager at Shell Chemicals in the Americas. Last year, his company announced its ambition to feed 1 million metric tons of scrap plastic per year into the company's global chemical production infrastructure. But because scrap and virgin feedstocks are mixed together in production units, calculating recycled-content becomes a stickier question.

Mass balance accounting, a technique used to calculate recycled content, addresses technical issues with gathering and analyzing the data, he said. And third-party accreditation is important if you want a credible, auditable framework, he said.

Versagli of Plastic Energy also touched on that point, saying certifications require traceability, which requires coordination along the entire value chain.

Brenner said mass balance accounting is already used in a number of industries – palm oil, bio-fuels and others – so it's not a matter of the plastics industry learning a new methodology.

"The main issue, as I see it, is that of communication," Brenner said. "Being able to communicate this principle, this idea, in a way that's easily understood, that people can grasp onto as clearly as they can with mechanical recycling and understand, 'Yes, I understand where those molecules come from, or I appreciate where the origins of that material or product comes from.' This is the real driving factor."

More stories about technology

- Attractive innovation: Magnets help on bottle recycling obstacle
- Details on a reclaimer's new processing line
- How one new system is handling a challenging stream

Waste Management and others see lift from fee-for-service - Resource Recycling News

Jared Paben

Revenue from Waste Management's recycling business fell by 20% last year, but earnings were nearly flat. | Dan Leif/Resource Recycling, Inc.

Lower commodity prices continued to batter recycling revenues for the largest garbage and recycling companies last year. But recent moves to charge communities for MRF processing helped soften the financial blow.

The five largest publicly traded residential waste haulers and MRF operators recently reported their fourth-quarter and full-year 2019 financial results.

From largest to smallest (in terms of total revenue), those companies are Waste Management, Republic Services, Waste Connections, Advanced Disposal Services and Casella Waste Systems.

The top four experienced decreases in recycling revenues in 2019: a drop of 20% for Waste Management, 8% for Republic, 31% for Waste Connections and 43% for Advanced.

Casella enjoyed a 1% recycling revenue increase.

The companies continue to be affected by depressed commodity values, particularly for OCC and other paper grades, driven largely by import restrictions in China and other Asian countries. Ever since China launched its National Sword campaign, the haulers have been experiencing market pains. They've responded by charging customers more to sort and sell recyclables.

John Morris, chief operating officer for Waste Management, said his company overcame decreasing commodity sales revenues with customer fees last year. As a result, recycling business earnings were only down by about $2 million, or roughly flat.

"Our recycling performance demonstrates the success we are having in restructuring and recycling contracts to a fee-for-service model," he said during a Feb. 13 call with investors.

The following is more detail on each company's results:

Fees reduce operating losses

Waste Management's recycling business brought in $240 million in revenue during the fourth quarter of 2019, down 29% year over year, according to a company press release. For the full year, recycling revenues totaled $1.04 billion, down 20% from 2018 (the numbers above include revenue from the company's commodities brokerage business).

According to the release, in the fourth quarter, the operating EBITDA (earnings before interest, taxes, depreciation and amortization) fell by $12 million year over year. But for the full year, operating EBITDA was nearly flat.

"The company achieved this outcome in spite of a 35% decline in market prices for recycled commodities during 2019, due to the continued focus on developing a sustainable recycling business model that meets customers' environmental needs on a fee-for-service basis," according to the release.

During the call with investors, Morris said the company tallied a blended average commodity price of $37 per ton during the fourth quarter, down 43% year over year. For the whole year, the average was about $44 per ton.

During the call, Morris also provided an update on its "MRF of the Future," which is under construction in Chicago. The facility's sorting technology will use a positive sorting approach to generate high-quality material, Morris said. It will be fully operational during the second quarter of this year.

As of the end of 2019, the company operated 103 MRFs (including facilities that handle C&D debris).

Recycling now brings in over 6% of the company's total revenues. During the fourth quarter, total company revenues were $3.85 billion, roughly flat year over year. During the full year, revenues totaled $15.46 billion, up nearly 4%.

In April 2019, Waste Management announced it would acquire Advanced Disposal Services, the fourth largest publicly traded residential waste and recyclables hauler in North America. According to Waste Management's annual report, the company expects to obtain antitrust regulator approval for the transaction by the end of March 2020 and to finalize the acquisition shortly thereafter.

Over one-third of recycling contracts repriced

Meanwhile, Republic Services' recycling business brought in $60 million in revenue during the fourth quarter, down 23% year over year. For the full year, recycling revenue totaled $273 million, down 8%.

Republic Services calculated the average price for recycled commodities (excluding glass and organics) at $66 per ton, down 38%. For the full year, the average price was $77, down 26%.

> "We continue to walk through city hall and tell the message around a model that needs to be economically sustainable, to be environmentally sustainable over time." – Jon Vander Ark, Republic Services president

Like other companies, Republic Services has worked to reduce its exposure to commodity price changes. According to a press release, through the end of 2019, the company repriced about 36% of its recycling collection contracts. Those contracts represent about 55% of the company's recycling volumes. The company also implemented a recycling processing charge for its open-market customers.

"As a result, the company's earnings sensitivity to changes in recycled commodity prices is expected to decrease in 2020," according to the release.

During a Feb. 13 conference call with investors, Republic Services President Jon Vander Ark said the company continues to renegotiate contracts with municipalities, and it's finding receptive ears.

"We continue to walk through city hall and tell the message around a model that needs to be economically sustainable, to be environmentally sustainable over time. And I can tell you we're seeing momentum shift," he said, according to a transcript from Seeking Alpha.

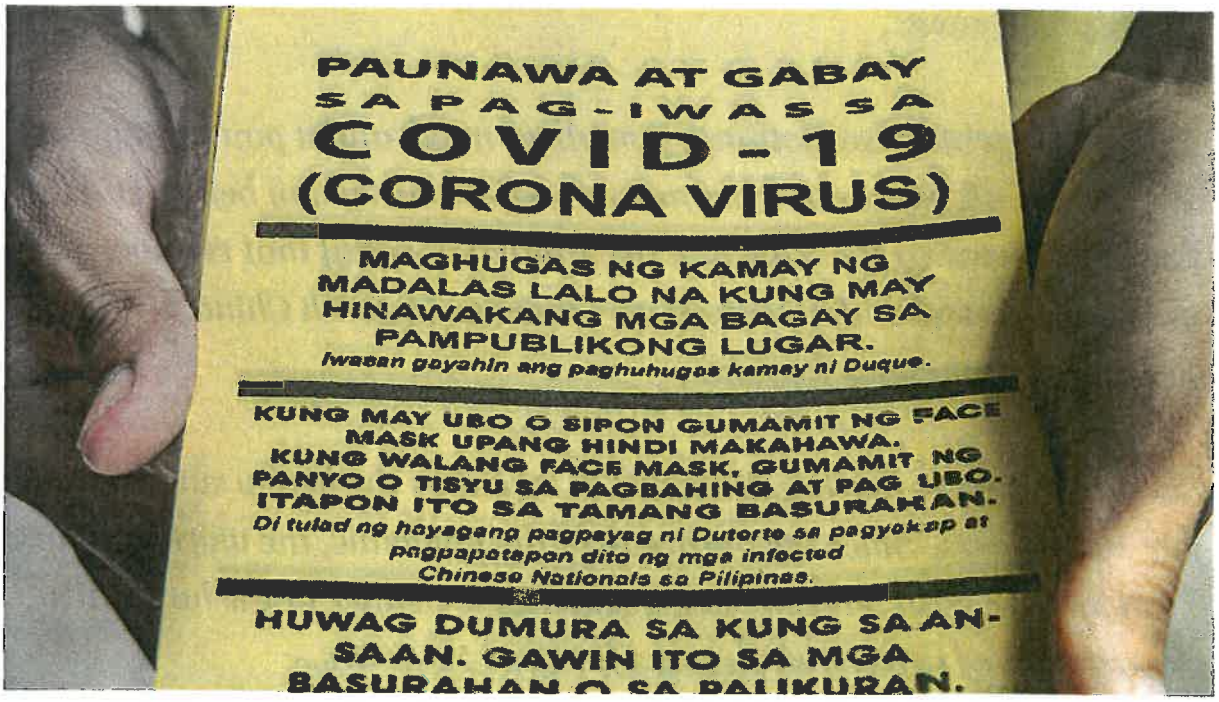
During the call, Republic President and CEO Don Slager took aim at glass, calling it highly recyclable but noting it has low value. In some regions, he said, the trucking costs to get the glass to an end user "take the whole thing upside down."

"So, we've got to have those honest discussions with generators about whether the material really does have real sustainable environmental value at the end of the day or are we just basically burning more rubber and more fuel to make ourselves feel good," he said.

About 79% of the recyclables Republic processes are fiber, including OCC, ONP and mixed paper. In 2019, the company sold 2.2 million tons of material, excluding glass and organics, from its MRFs. That was down from 2.4 million tons the year before.

Waste 360

NEED TO KNOW



China's Sanitation Workers Take on Coronavirus Cleanup

Sanitation workers' duties include disinfecting discarded masks of residents and facilities such as public toilets.

Waste360 Staff | Feb 24, 2020

Thousands of cleaners, garbage disposal workers and sanitation workers across South China's Guangxi Zhuang Autonomous Region are

working diligently to maintain a clean work and living environment amid the coronavirus epidemic .

Xinhua reports that household waste, however, has greatly reduced as most people are advised to stay home to minimize the risk of getting infected. But sanitation workers are greatly impacted, as their duties include disinfecting discarded masks of residents and facilities such as public toilets.

Xinhua has more:

Putting on protective clothing, a medical mask and a pair of goggles, Shi Qing'e, 48, must put in some extra effort every day before starting her tight cleaning schedule at a designated hospital that receives patients infected with the novel coronavirus in south China's Guangxi Zhuang Autonomous Region.

She always ends the day drenched in sweat as the heavy suit restricts her movements. Since the outbreak of the epidemic, the workload has been intense, said Shi who has worked as a cleaner at the hospital's department of infectious diseases for over six years.

Shi said medical waste used to be placed at the door of the clinic by nurses for her convenience, but as the number of patients increased, medical workers became too busy to make time for the waste, so it became her responsibility.

Read the full story.

Source URL: https://www.waste360.com/medical-waste/chinas-sanitation-workers-take-coronavirus-cleanup

Right-to-repair advocates make their case in one statehouse - E-Scrap News

Jared Paben

In Olympia, Wash., right-to-repair proponents and opponents testified during a Jan. 21 hearing in front of the Senate Environment, Energy & Technology Committee. | jfergusonphotos/Shutterstock

Electronics repair stakeholders clashed over right-to-repair legislation in Washington state this week, as a number of state legislatures begin taking up similar bills.

In Washington state, Senate Bill 5799 would require electronics manufacturers to provide to independent repair shops the parts, tools, equipment and information needed to fix devices. Nationwide, 15 states have active right-to-repair bills, according to The Repair Association, which expects another five or more bills to be introduced this year.

At least 20 state legislatures had right-to-repair legislation introduced last year. No state has yet passed and signed an electronics right-to-repair bill into law.

In Olympia, Wash., right-to-repair proponents and opponents testified during a Jan. 21 hearing in front of the Senate Environment, Energy & Technology Committee, which did not immediately take action on the bill.

Bill sponsor Sen. Bob Hasegawa, D-Seattle, called the legislation a "good small business bill."

"Big corporations that control the vertical process from manufacturer to end-of-life use don't need advocacy because they've got plenty of advocates down here," he told the committee. "But I'm here to advocate for small business owners."

He was joined by bill advocate Sen. Christine Rolfes, D-Kitsap County, who said we need to challenge big technology corporations and the concept of a business model that depends on functional obsolescence.

"I'm not suggesting that we make this technology easy to steal and easy to duplicate, but I am suggesting that Big Tech gives us products that we can repair," she said.

Bill advocates plead for passage

Representatives from two repair shops in Portland, Ore., which is just across the Columbia River from Washington, spoke in favor of the bill.

Adelle Pomeroy, digital inclusion manager at nonprofit repair and recycling organization Free Geek, noted that difficulty refurbishing and repairing used devices hurts the group's effort to help bridge the digital divide.

In refurbishing devices, Free Geek staffers often have to break devices in order to understand them, she said.

"It's not logical. It's unnecessary and very challenging and a waste of resources as a nonprofit," she said. "If we did have this right-to-repair bill passed, we'd have a lot more access to refurbishing technology and be able to serve our community more and give more devices to the vulnerable communities that need them."

Adrian Avery-Johnson, owner of Bridgetown Electronics Repair, said his company suffers from a lack of schematics, diagnostic tools, parts and service documentation. "A large amount of my time is spent identifying and sourcing replacement parts," he said.

He said the day before, a customer brought in Kindle, Garmin and Macbook devices, all with damaged USB ports because the customer's young daughter put oatmeal in them, he said. The customer was told by authorized repair centers that replacement was the only option at a cost of about $2,000. He was able to fix them for less than the cost of a replacement tablet, he said.

Adelle Pomeroy of nonprofit repair and recycling organization Free Geek spoke in favor of the bill.

Bob Akers, enterprise director at e-Stewards, said the bill is good for the environment, because extending the life of devices takes pressure off of recycling, as well as for the economy, because it supports a growing repair market.

He also tied the bill to the digital divide and the homelessness problem in Seattle, saying that high schoolers lacking access to technology are at risk of becoming homeless later because they are at a disadvantage in terms of education.

"If we can make affordable equipment available to those individuals, we can maybe take a bite out of the homeless problem of tomorrow," Akers said.

OEM groups blast bill

Representatives of a number of electronics industry associations spoke at the hearing in opposition to the legislation. Those groups included the Consumer Technology Association (CTA), TechNet, the Entertainment Software Association (ESA) and The Computing Technology Industry Association (CompTIA).

Samantha Kersul, executive director in Washington and the Northwest for TechNet, called the bill a solution in search of a problem. She said her main concern is the bill risks manufacturers' intellectual property. TechNet is a network of tech CEOs and senior executives.

"Technology companies must be able to manage their repair networks in order to provide adequate training and accountability, which leads to safe and effective repairs," she added. "The groups pushing for [right-to-repair] in states across the country stand to profit greatly by passing this legislation under the guise of consumer protection."

Charlie Brown, who represents CTA, said the bill intervenes in the private contractual relationship between manufacturers and their repair networks.

"We work with our authorized repair networks to ensure the high safety standards for this electronic equipment," he told senators.

"I'm sure that all of you have heard about lithium-ion batteries and the potential problems that can cause when they're not connected properly to a device. So that's why we have authorized networks."

Anna Powell, director of state government affairs for CompTIA, said giving anybody access to parts, tools, technical manuals and software presents cybersecurity, privacy, safety and copyright risks, and it introduces hurdles to innovation.

She also suggested the law could prevent recycling of devices that OEMs currently provide free recycling programs for.

"Washington should resist unwarranted intervention in the marketplace with one-size-fits-all mandates that compromise consumer safety and protection and make the proper recycling and disposal of electronic devices less certain," she said.

Many of the manufacturers' arguments mirrored Apple's answers to a Congressional subcommittee's questions last fall.

Lawmakers show some skepticism

At the hearing, OEM representatives faced some doubting questions from senators.

Sen. Derek Stanford, D-Bothell, said he heard testimony asserting there are many repair options, but when his Xbox fan broke, he had to send it to Microsoft for an expensive repair. After waiting several weeks, he received a different unit back.

"This is about competition. There's no competition," he said. "If there was competition, then people would have to try to get that console repaired more quickly."

And skepticism didn't just come from Democrats, who control both chambers of Washington's legislature. Republican Sen. Doug Ericksen of Ferndale asked if there are examples of independent repair shops pirating proprietary info and then trying to sell it. He used the example of his car, which he could have repaired by the dealership, by a certified repair shop, or by his neighbor.

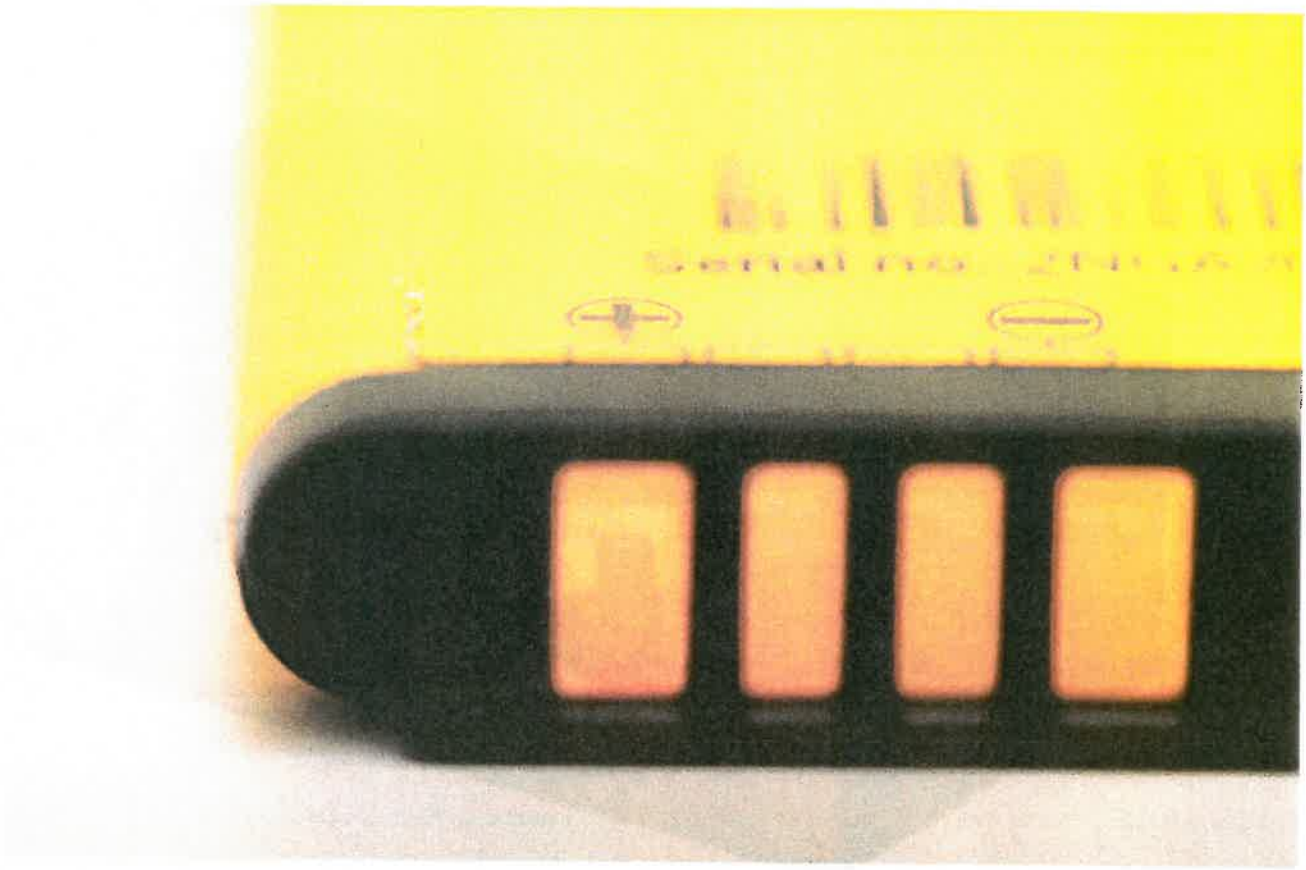
"Unless you guys can show, like, a real risk to copyright infringement and digital theft, piracy, those kinds of things, I don't understand why we wouldn't let everybody have a crack a fixing my phone when it breaks," Ericksen said.

More stories about refurbishment/reuse

- Apple contract reveals repair program details
- E-scrap researcher says we've become 'planet of fixers'
- Computer manufacturer partners with Free Geek Toronto

Here are the rules on handling lithium-ion batteries - E-Scrap News

Colin Staub



A recent presentation offered some tips on how best to ensure compliance with the law when shipping lithium-ion batteries. | XH2/Shutterstock

Batteries from consumer electronics are being increasingly regulated because they can be a problematic material in the recycling stream. Experts recently laid out federal rules for transporting lithium-ion batteries destined for recycling or disposal.

Lithium-ion batteries are used in a wide variety of products, including cell phones, tablets, computers, e-cigarettes, power tools and more. According to a Portable Rechargeable Battery Association (PRBA) estimate, more than 5.5 billion lithium-ion battery cells are manufactured worldwide per year.

"Ultimately these batteries will end up in the waste or recycling streams when folks are done using them," said Brandon Bray, a physical scientist at the U.S. EPA, in a recent EPA webinar.

These batteries have become increasingly common because their chemistries allow products to be lighter while also holding higher charges for longer periods of time. But these same factors play into some of the hazards associated with them, represented by an increasing number of fires at municipal recycling facilities, e-scrap processing plants and more.

Because they can be so volatile, lithium battery transport is regulated by the U.S. Department of Transportation (USDOT), through its Pipeline and Hazardous Materials Safety Administration (PHMSA).

"Improperly packaged lithium batteries present a significant risk of a serious incident and the release of stored energy," Neal Suchak, part of the organization's Hazmat Safety Assistance Team, said during his presentation on the webinar. "Thermal runaway can lead to self-heating and the release of that stored energy, and the result is fire, explosion and a release of flammable gases."

When is special packaging required?

Shippers must take precautionary steps when transporting lithium-ion batteries, and Suchak offered some tips on how best to ensure compliance with the law.

First and foremost, anyone shipping batteries must identify the battery type, as this will determine all further actions that need to be taken.

"Some batteries – alkaline batteries, your AA types, dry batteries – have very few requirements, whereas lithium-ion batteries present a much greater risk," Suchak explained.

Identifying and classifying batteries essentially means sorting them based on their chemistries. This is largely done manually, Suchak said, and USDOT recommends that individuals whose jobs involve sorting batteries receive special training on battery identification.

Lithium-ion battery shipments require simple labels indicating what battery type is contained and cautioning that the package cannot be transported on a passenger aircraft. | Photo courtesy U.S. EPA.

Some batteries are specifically marked to indicate their chemistry, others may be identifiable by the physical characteristics of the battery, such as vents on the battery or taking a reading on battery voltage. Lithium-ion batteries are typically rechargeable and are generally cylindrical or rectangular.

Additionally, Suchak said some manufacturers will identify battery types with specific colors, although he noted sorting batteries by color is not recommended. "This is not really a reliable way to identify a battery, as there's no regulatory standard for the color," he said.

Lithium-ion batteries use watt-hour measurements to classify battery energy storage levels (often corresponding with size), which is an important factor in regulatory compliance; in general, the larger the battery, the more regulations apply. For instance, batteries of at least 300 or more watt-hours can only be shipped by ground. Typically, batteries found in consumer electronics that e-scrap firms will encounter fall into smaller battery categories.

What type of packaging is necessary?

For highway transport to disposal or recycling locations, lithium-ion battery packaging regulations are performance-based, Suchak explained. That means packaging must meet specific requirements, but USDOT doesn't mandate exactly which packaging needs to be used.

For small lithium-ion batteries found in consumer electronics, the proper packaging generally includes, at minimum, both inner and outer packaging. Inner packaging must be non-metallic, must completely enclose the battery and its terminals, and must separate batteries from contact with any conductive material. Without separating batteries from each other, their terminals can touch and cause a short circuit and possible fire.

"The inner packaging can immediately affect the transportation safety of the battery," Suchak said.

Common inner packaging materials include plastic bags and tape enclosures, ensuring the material completely surrounds the cell or battery. That can mean taping all the way around each battery or putting each one in a separate bag.

In between the inner and outer packaging, a cushion may be needed to meet performance requirements by preventing batteries from shifting or experiencing accidental activation within the package, Suchak said.

"Batteries shouldn't be affected by normal shifting, normal vibrations or maybe small handling issues like a small drop or during a loading and unloading process," Suchak said.

If needed, cushioning materials should be non-reactive to the batteries, he explained. This can include bubble wrap, diatomaceous earth or vermiculite.

The outer packaging must be a rigid, sturdy, durable material, and it must be constructed to retain contents, Suchak said. The package needs to be able to meet performance requirements from a four-foot drop.

In the past, flexible materials such as padded envelopes were considered acceptable for shipping small batteries, and they do indeed meet the drop test, Suchak noted. But they don't sufficiently protect the batteries from punctures or other direct blows, and the regulatory text was amended to add the "rigid" requirement.

Communicate hazards to others

Although there are a variety of labeling rules for discarded lithium-ion batteries, Suchak noted that for the recycling sector, most of the hazard communication requirements aren't necessary.

"Your requirements are mostly going to be limited to package markings, and fairly simple markings at that," he said.

The lithium battery handling mark is a standard icon that must be applied to packages of lithium batteries. The mark shows multiple lithium-ion batteries, including one with a crack and flame coming out of it.

Improperly packaged batteries can cause thermal events, posing numerous safety concerns. Photo courtesy U.S. EPA.

Under the icon, two numbers must be included: the United Nations numbers that identify battery chemistries and whether batteries have been removed from equipment, and a telephone number for somebody who can provide basic information about where the shipment, including where it came from and how many batteries are contained. The phone number doesn't have to be monitored 24 hours a day.

These labels are available either pre-printed or blank from various commercial suppliers, Suchak explained, and shippers are allowed to hand-write their information on the label.

Many shipments will also need language conveying that they are forbidden for transport aboard passenger aircraft, regardless of whether they're being sent via ground transport.

Shipments weighing more than 66 pounds have additional labeling requirements, although recycling firms handling smaller consumer batteries can avoid these by breaking shipments up into multiple smaller loads.

Damaged battery handling

Another part of managing battery hazards is isolating damaged batteries, which present "a unique safety hazard," Suchak said, because they are at greatest risk of causing fires. That means damaged batteries have additional identification and handling requirements during transportation.

"As a shipper or recycler, being able to suss out these damaged batteries or defective batteries or recalled batteries is so important. I really can't overstate how important this is," he said.

That's difficult, however, because damage might not be obvious. Suchak offered a few key identifiers to look for: Damaged batteries might give off unusual heat or smells, could be leaking or venting, or could have obvious physical or mechanical damage.

Transporting damaged batteries used to be forbidden but is now allowed with many guidelines, including that each damaged battery must be individually packaged. Transporting them, Suchak noted, can be quite expensive.

Beyond these regulations, there are "extremely common" special permits that can be issued to companies on a case-by-case basis. Essentially, these allow companies to take actions not otherwise authorized in the regulations but that provide an equivalent level of safety.

PHMSA offers various training modules and outreach resources related to battery transportation regulations.

More stories about regulation/oversight

- European leaders vote to pursue standardized charger
- Right-to-repair advocates make their case in one statehouse
- Midwest state looks to improve oversight of e-scrap facilities

Waste 360


Dante' Jones Twitter

How Super Bowl LIV's Waste was Turned into Renewable Electricity

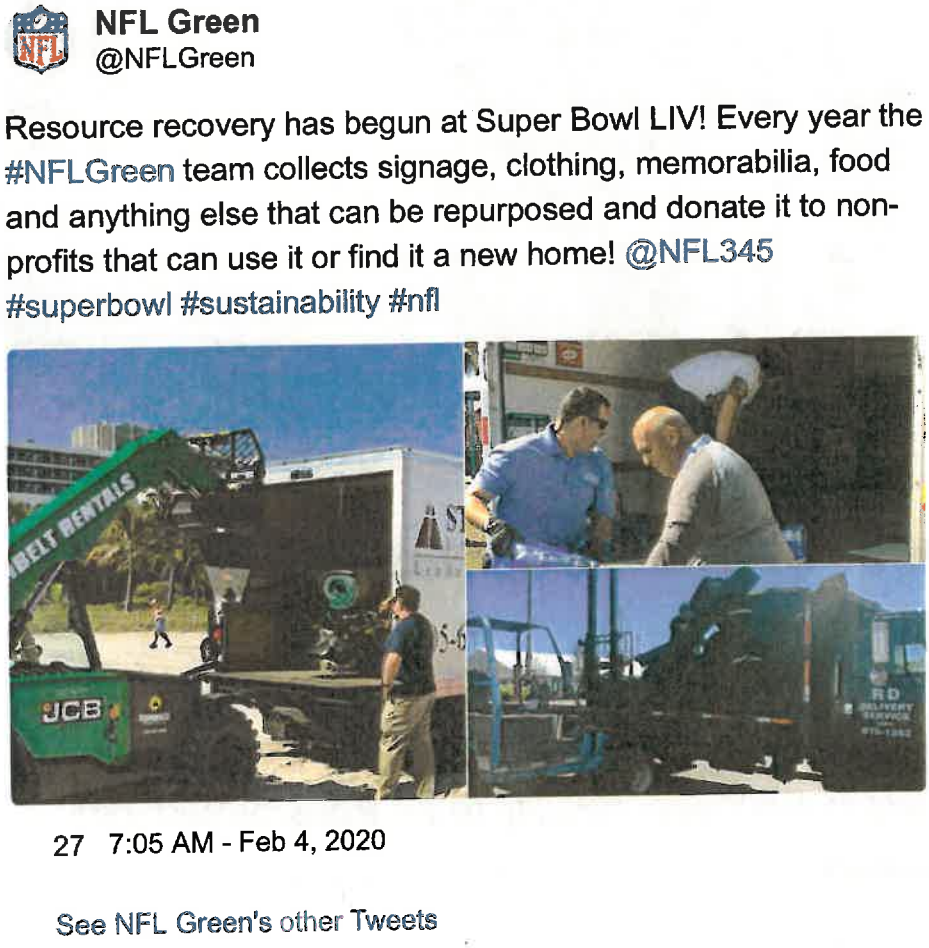
After the game, waste was transported to the Miami-Dade County Resources Recovery Facility to be transformed into renewable energy.

Mallory Szczepanski | Feb 07, 2020

On Super Bowl Sunday, more than 114 million people tuned into the big game. Approximately 62,417 of those people packed Hard Rock

Stadium in Miami, where they enjoyed a night of football, food and drink and fun.

But after the game was over, and the fans left the stadium, cleanup crews began clearing the stands of waste and recyclables. Some of the material like clothing and signage was donated to nonprofits or repurposed, recyclables were transported to local recycling centers, edible food was donated to local food shelters and municipal solid waste, along with food waste, was sent to the Miami-Dade County Resources Recovery Facility.



"We take in about 1.6 million tons of waste on an annual basis," says Michael Fernandez , director of Miami-Dade County Solid Waste

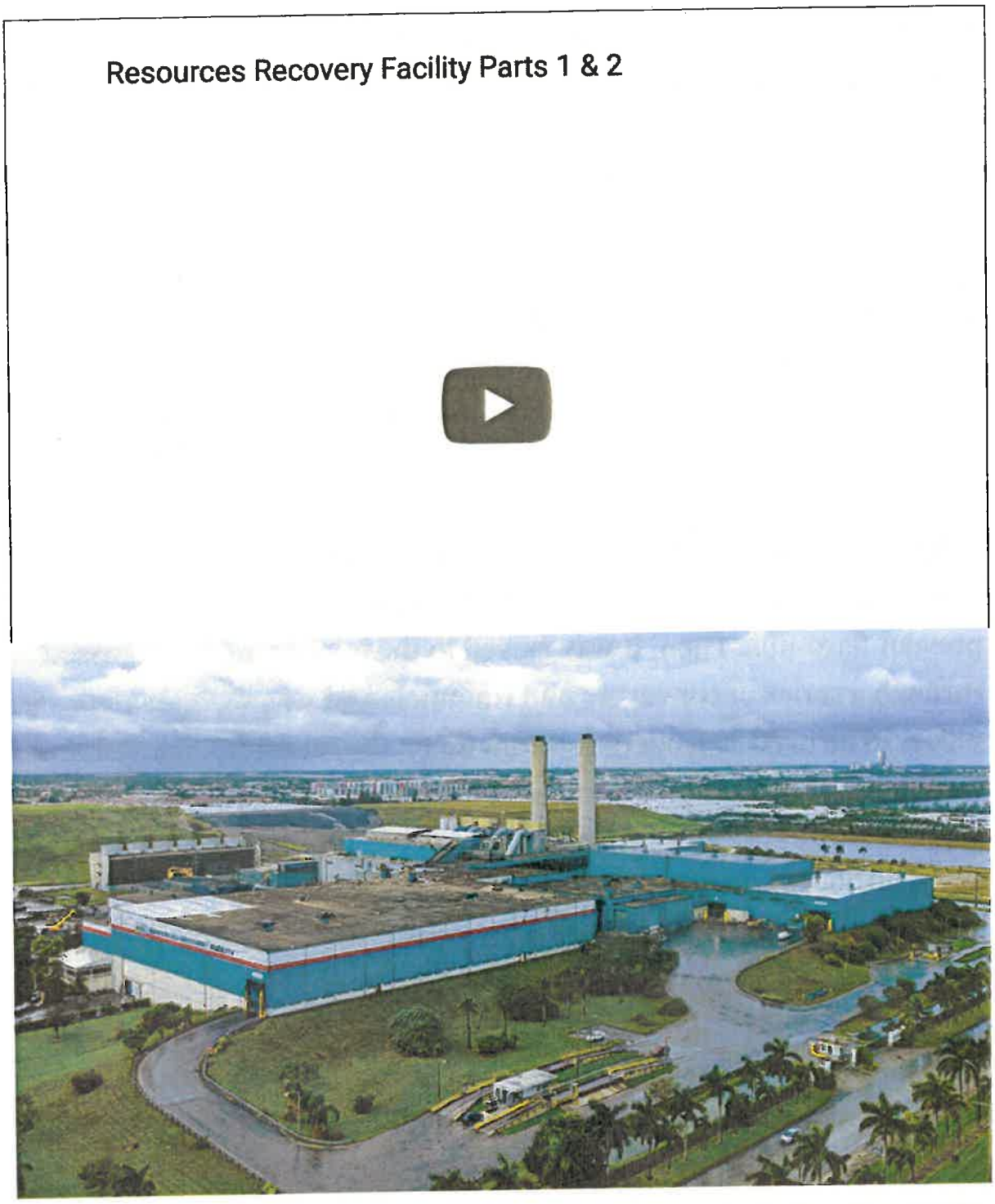
Management and a 2018 *Waste360* 40 Under 40 award recipient . "The Super Bowl and the Super Bowl events generated about a few hundred tons of waste—and none of it went to landfill. The materials we received were processed at our energy-from-waste (EfW) facility, which produces renewable electricity."

The EfW facility, which is owned by Miami-Dade County Solid Waste Management and operated by Covanta, helped the Super Bowl further its sustainability efforts by turning the waste it received into renewable electricity.

When the waste arrived at the facility, it was checked for metals and then sent to the pit and mixed to create consistency, which helps prevent flare-ups. Then, it was moved to the hopper, where it passed through a series of conveyors and trammels and was shredded into tiny pieces to be used as feedstock. From there, the feedstock was fed to the facility's four boilers, which run at a temperature of about 1,500 degrees Fahrenheit. Those boilers vaporized the water into steam that spins turbines, which are connected to a generator that produces renewable electricity. That electricity powers about 40,000 homes a year.

"The electricity part is just an added bonus—the plant's focus is on reducing waste," states Fernandez. "In addition to electricity, we also produce close to 150,000 tons of ash each year and recover a large amount of metals ."

Flip through this gallery to view some images from the Miami-Dade County Resources Recovery Facility, and watch the video below to gain more insights about the facility.



1.

The Miami-Dade County Resources Recovery Facility turns waste into renewable electricity, which powers approximately 40,000 homes a year.

2.

The Miami-Dade County Resources Recovery Facility takes in about 1.6 million tons of waste on an annual basis.

3.

A branded waste collection truck, which advertises Miami-Dade's "Nothing Goes to Waste" message.

4.

Waste entering the facility is checked for metals and then sent to the pit.

5.

In the pit, the waste is mixed to create consistency, which helps avoid flare-ups.

6.

The waste then moves from the pit to the hopper, where it passes through a series of conveyors and trammels and is shredded into tiny pieces to be used as feedstock.

7.

After the waste passes through a series of conveyors and trammels, it is shredded into tiny pieces and used as feedstock.

Source URL: https://www.waste360.com/waste-energy/how-super-bowl-livs-waste-was-turned-renewable-electricity

Environmental Services Joint Powers' Authority
Board of Directors' Meeting

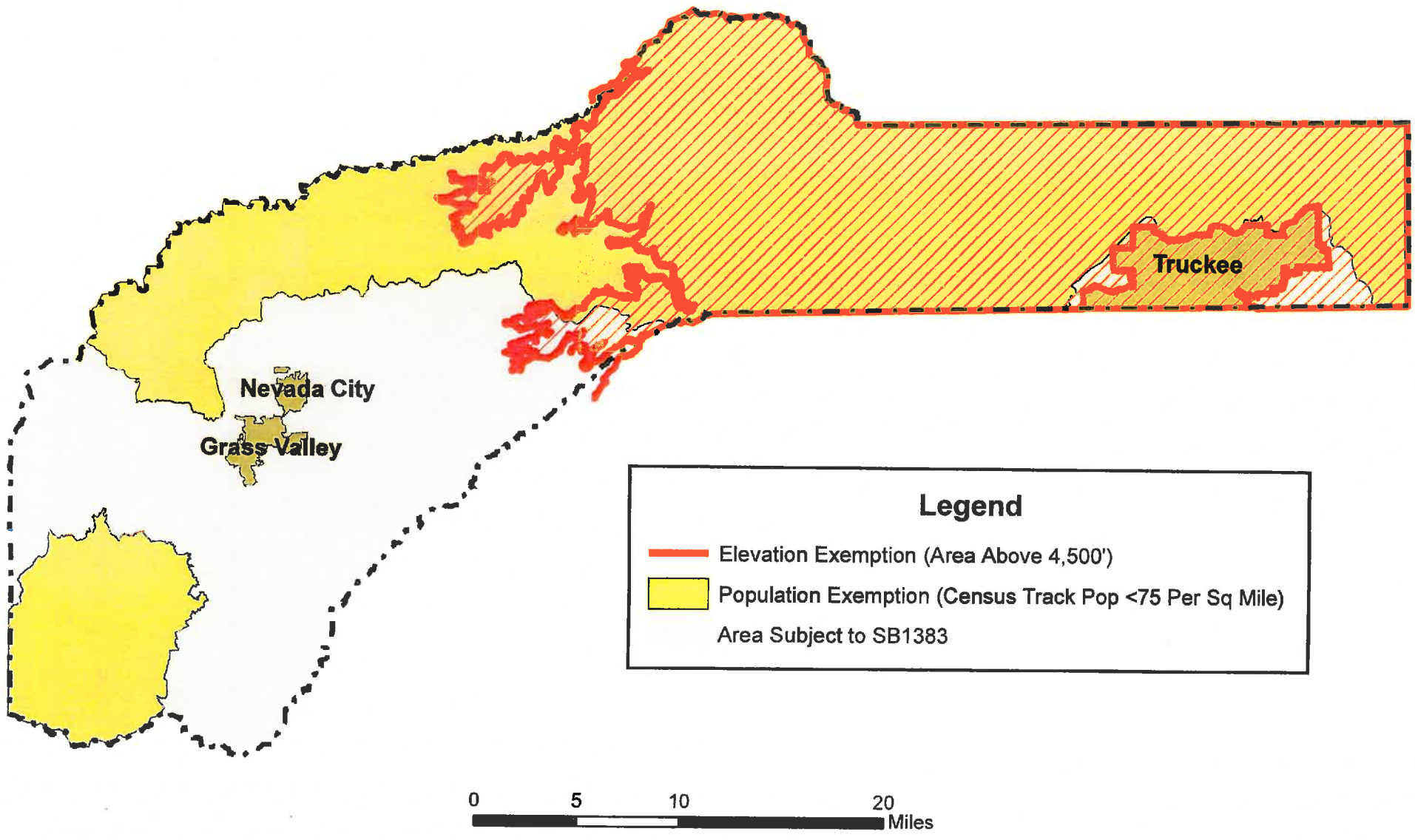
Thursday, March 12, 2020

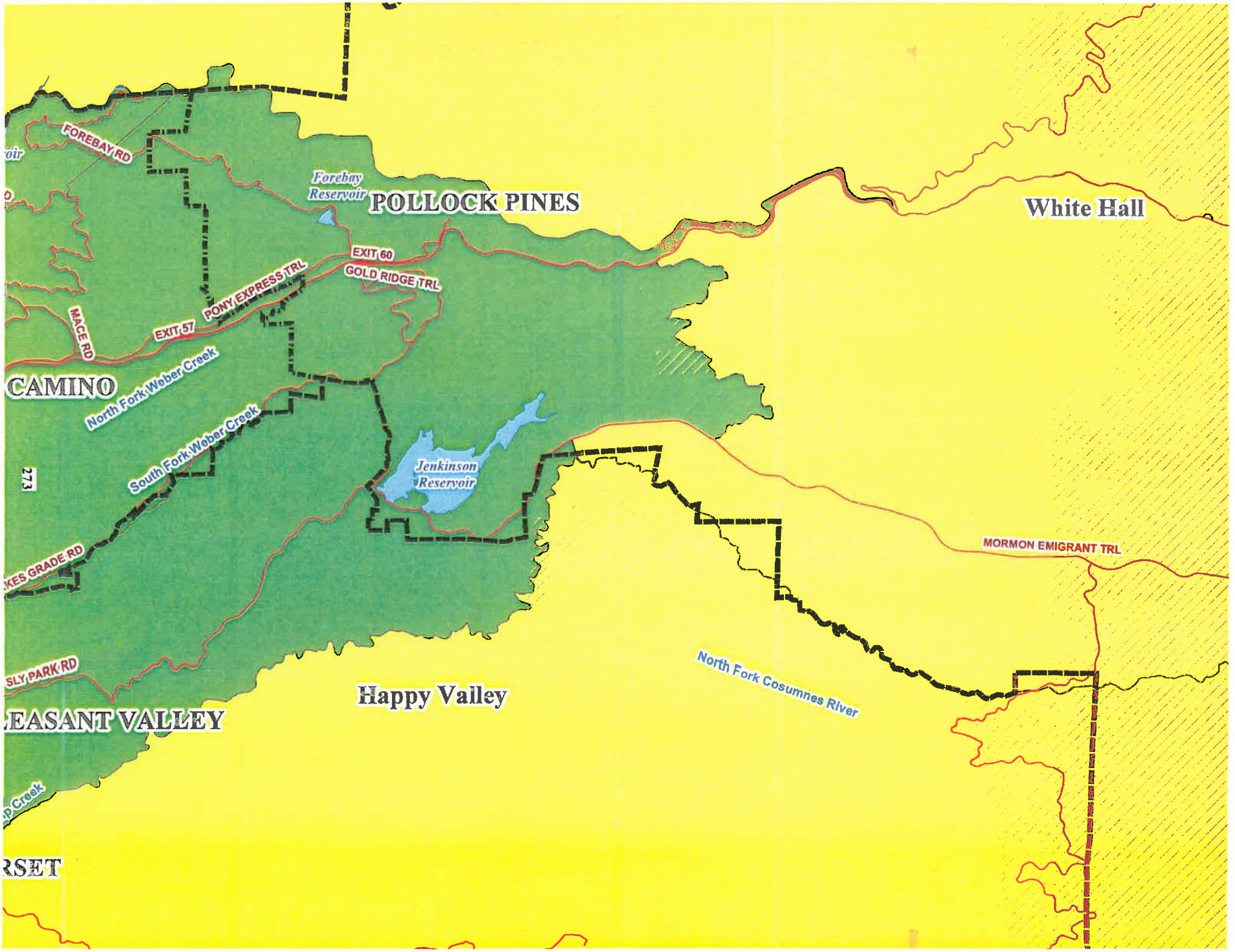
Technical Advisory Group

Breakout Session

Preparing for Implementation of SB 1383
Mary Pitto, RCRC Regulatory Affairs Advocate and Larry Sweetser, ESJPA Consultant

Nevada County SB1383
Population and Elevation Exemptions




FOREBAY RD
Forebay Reservoir
POLLOCK PINES
White Hall
EXIT 60
GOLD RIDGE TRL
PONY EXPRESS TRL
MACE RD
EXIT 57
CAMINO
North Fork Weber Creek
South Fork Weber Creek
Jenkinson Reservoir
273
MORMON EMIGRANT TRL
North Fork Cosumnes River
Happy Valley
EASANT VALLEY
RSET