U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

JUN 23 2009

Mr. Paul D. Johnson
Director of Environmental Affairs
Kinbursky Brothers Supply Inc.
1314 N. Anaheim Blvd.
Anaheim, CA 92801

Ref. No. 09-0090

Dear Mr. Johnson:

This responds to your April 16, 2009 letter on behalf of Kinsbursky Brothers Inc. (KBI) and Toxco Inc. requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether Special Provision 130 in § 172.102 and § 173.21 apply to the transportation of spent alkaline dry cell batteries.

According to your letter, both companies receive, sort, and package spent alkaline dry cell batteries for transportation by highway and/or rail for recycling or disposal. The batteries are identified and sorted so that only the spent 1.5-volt dry cell alkaline batteries are packaged together for transportation. You provide test data to demonstrate that these spent batteries contain very little, if any, energy content and that they are not capable of producing a dangerous evolution of heat during transportation.

Section 173.21(c) prohibits the transportation of electrical devices that are likely to create sparks or generate a dangerous quantity of heat, unless the devices are packaged in a manner that precludes such an occurrence. Special Provision 130 excepts dry batteries not specifically covered by another entry in the Hazardous Materials Table from regulation under the HMR when they are securely packaged and offered for transportation in a manner that prevents a dangerous evolution of heat and protects against short circuits. Based on the test data provided with your letter, it is the opinion of this Office that spent 1.5-volt alkaline dry cell batteries are not likely to generate a dangerous quantity of heat nor are they likely to short circuit or create sparks when they are transported in a packaging with no other battery types or chemistries present. Therefore, when transported by highway or rail and separated from other types of batteries of different sizes or chemistries, spent 1.5-volt alkaline batteries do not pose an unreasonable risk in transportation and are not subject to regulation under the HMR.

I hope this satisfies your inquiry. If we can be of further assistance, please contact us.

Sincerely,

Charles E. Betts
Chief, Standards Development
Office of Hazardous Materials Standards

KINSBURSKY
BROTHERS INC

April 16, 2009

U.S. DOT
PHMSA Office of Hazardous Materials Standards
Attn: PHH–10 U.S. Department of Transportation
East Building
1200 New Jersey Avenue, SE.
Washington, DC 20590--0001

RE: 49 CFR §172.102 Special Provision 130, §173.21.

Dear Sirs,

I am writing on behalf of Kinsbursky Brothers Inc (KBI) and Toxco Inc (Toxco) to requests the Department's interpretation and applicability of 49 CFR §172.102 Special Provision 130 and 173.21 to spent alkaline dry cell batteries being shipped for recycling or disposal.

Background

Each year KBI and Toxco receive, sort, and package more than one million pounds of spent, used, dry cell alkaline batteries from households, businesses, municipalities, government offices and commercial retail operations in the US and Canada. These batteries power a variety of portable electronic products including, calculators, keyboards, radios, toys, flashlights and cameras.

These batteries are sorted and repackaged for shipment by truck or rail for recycling, metal recovery, or waste management at offsite facilities. These dry-cell batteries are currently shipped using one of the following classifications described in the Hazardous Materials Regulations (HMR; 49 CFR Subtitle B, Chapter I, Subchapter C, part 172.101):

Proper shipping name	Hazard class	ID	Packing group
Batteries dry containing potassium hydroxide solid	8	UN3028	III
Batteries, dry, sealed, n.o.s. *	--	--	--
*applicable when special provision 130 is met. [1]			

Impact of special Provision 130 on the battery recycling industry

It appears that the HMR does not expressly take into account the low risk associated with spent dry cell alkaline batteries collected for recycling and disposal. Spent dry cell alkaline batteries are by definition used and inherently contain low electrical energy density (even when fully charged). Our observations and experience is that spent alkaline batteries contain only low voltages if measurable at all.

[1] *It is worth noting that by insulating any one terminal of any single battery cell you effectively eliminate the possibility of a circuit since at least three batteries oriented in series (positive to negative) are necessary to create a circuit.*

P 714.738.8516

The requirements of SP 130 are significantly problematic for interim handlers and processors of end of life spent alkaline batteries being sent for disposal or recycling. Excessive tape, plastic bags, and coatings commonly applied to these types of cells often require removal of the insulation to identify the chemistry during the receiving and sortation process. Once batteries are un-insulated, identified and sorted; and material is to be prepared for transport to a destination recycling/disposal facility the batteries must be insulated once again for transportation. During sorting large format or multiple cell batteries and other chemistries are removed and segregated from the dry cell alkaline batteries. This ensures the segregated material is appropriate for the specific processors and that the material being shipped will not contain any of the battery chemistries that represent a potential transportation risk.

Upon receipt at the final recycling facility the processing facility may be required remove the insulation from each battery cell prior to introduction to a furnace or a chemical process since the added tape, plastic and coating may not conform to pollution control requirements or end-process tolerances at the destination facility.

Supporting Data

On March 24th, 2009 KBI technicians conducted experiments mimicking a worst case scenario of a short circuit of dry cell alkaline batteries during transportation. Using common dry cell alkaline batteries a circuit was created in an attempt to determine if dry cell alkaline batteries are capable of generating a dangerous amount of heat during transportation. It was determined that this type of battery, when subjected to conditions incidental to transportation without insulation of the cell terminals is not capable of creating a dangerous evolution of heat.

Our tests were conducted using 12 new D cell batteries fastened end-to-end (positive to negative) on an adhesive strip and placed in-series. A ten gauge insulated copper wire (see figs 1and 2 below), was then affixed to the positive side of the battery chain, and the negative side of the battery chain. Additional tests using randomly selected spent batteries were also conducted yielding equivalent results (though expectedly producing less voltage and no measurable heat increase). As the data indicate neither test group produced significant voltage nor generated enough heat to pose a risk during transportation.

Fig1. New, fully charged batteries

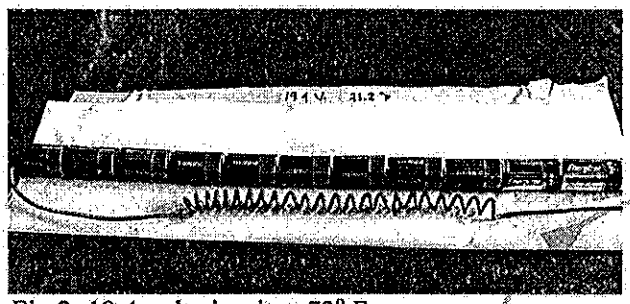

Fig 2. 19.4 volt circuit at 73° F.

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During the tests the voltages were periodically measured using a standard hand held electricians volt meter; the temperature was monitored throughout the experiment using a hand-held Raytek Ryanger thermal-meter. The tests were conducted on a steel table and voltage and temperature were monitored for a period of 80 minutes.

Once the batteries were aligned in series and the 10guage wire was connected the voltage of circuit immediately decreased from 19.4 to .6v and the temperature of the cells began to slowly increase. This is recorded in Table 1 below. The temperature of the cells increased, peaking 19 minutes into the experiment, until reaching a maximum temperature at cell numbers 5, 6 and 8 of 229 degrees F at which point continued thermal reading indicated a steady declination of the cell temperatures until the conclusion of the test 61 minutes later.

Table 1

12 new D cell alkaline batteries ambient temperature 73 degree Fahrenheit 19.4 volt circuit at start												
Time	10:21	10:24	10:26	10:30	10:35	10:40	10:45	10:50	11:05	11:22	11:30	11:41
Circuit Voltage	0.6v	0.5v	0.2v	0.2v	0.2v	0.2v	0.2v	0.2v	0.2v	0.2v	0.2v	0.2v
Temp cell 1	79	104	124	165	202	207	170	144	126	97	90	90
Temp cell 2	82	109	131	175	195	180	178	120	133	106	99	98
Temp cell 3	83	107	127	173	189	170	107	151	135	109	101	101
Temp cell 4	84	109	127	168	208	208	185	160	160	104	106	88
Temp cell 5	85	109	120	174	209	229	155	130	160	106	100	91
Temp cell 6	84	109	125	170	209	229	150	132	130	101	96	89
Temp cell 7	84	103	125	170	205	216	135	150	137	106	96	90
Temp cell 8	87	109	130	175	210	229	150	149	131	104	96	88
Temp cell 9	85	109	130	177	207	220	135	130	122	98	91	88
Temp cell 10	88	109	126	180	213	225	198	178	122	108	99	90
Temp cell 11	88	111	131	176	203	210	178	160	124	105	99	90
Temp cell 12	90	103	125	171	203	200	185	154	114	93	90	85

An additional experiment was conducted using spent dry cell batteries randomly selected from the containers received at KBI (see fig 3 below). The test was conducted under identical parameters however, the circuit created by the used batteries had an initial voltage of 0.0v and remained constant throughout the experiment.

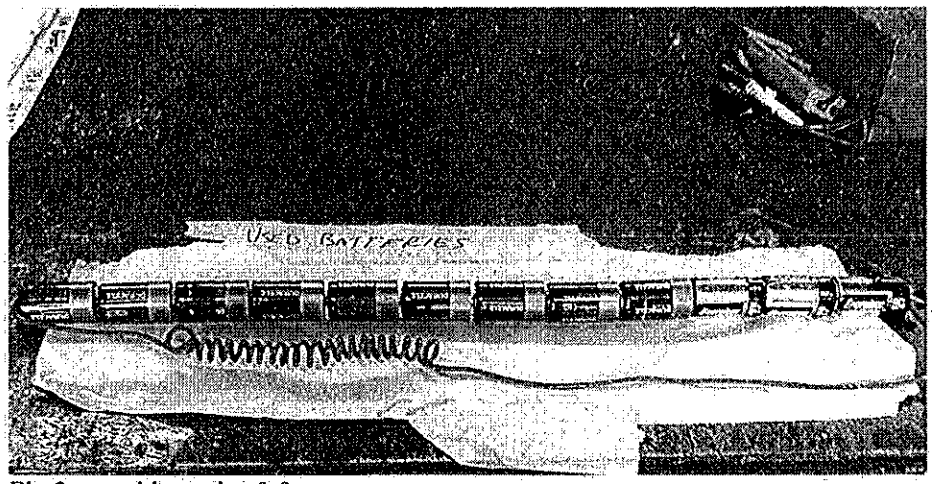

Fig 3. used batteries 0.0 v.

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Used cells displayed an individual voltage ranging from 0.0 to 1.5 volts. Test 2 was conducted later in the day when the ambient temperature measured approximately 80° F. During this phase of the experiment the used cells had a cell surface temperature ranging from 73 and 75 degrees and showed only negligible indications of increasing through out the duration of the tests (some of which can be attributed to the rising ambient temperature). Since no significant increase in temperature was observed the test was concluded after 13 minutes. See table 2.

Table 2

12 D cell spent alkaline batteries ambient temperature 79 degree Fahrenheit 0.0 volt circuit at start			
Time	11:17	11:23	11:30
Circuit Voltage	0.0v	0.0v	0.0v
Temp cell 1	75	75	75
Temp cell 2	74	77	77
Temp cell 3	75	75	75
Temp cell 4	74	75	75
Temp cell 5	74	74	74
Temp cell 6	74	75	75
Temp cell 7	74	74	74
Temp cell 8	74	74	74
Temp cell 9	74	74	74
Temp cell 10	73	74	74
Temp cell 11	74	74	74
Temp cell 12	75	77	77

Further tests using a mixture of new and used batteries were conducted on April 8th during a demonstration for transportation inspectors and similar; if not identical results to test number two were obtained. That is to say that a mixture of new and used dry cell alkaline batteries did not result in a significant increase in temperature and did not generate any measurable voltage after the initial measurement of the circuit.

Conclusions

1) The above battery test shows that if a long chain of spent battery cells were to align positive to negative, as demonstrated in our experiment, the resulting circuit does not result in the dangerous evolution of heat. Furthermore, as the results of these experiments and the assembled data contained herein indicate, even brand new batteries purposely wired in such a circuit do not produce enough heat to ignite any of the constituents of dry cell alkaline batteries or any plastic or paper packaging that may be associated with the container.

2) Based on the experiences of receiving, handling and shipping millions of pounds of spent dry cell alkaline batteries over the past 20 years; we strongly believe that alkaline batteries do not represent a safety risk during transportation. Typically, spent batteries are offered for over the road transportation in containers ranging from 5 to 55 gallons in volume. During conditions incidental to transportation these containers are certainly subjected to vibrations and jostling within the transport vehicle. This movement makes it implausible that an adequate number of battery cells could link together end-to-end during the random orientation of cells within a container to create a similar, or larger, circuit as the one demonstrated in our experiments. During the handling of spent dry cell alkaline batteries within the facility KBI stores the cells in large cubic yard tote bins prior to insulation and packaging for off-site shipment.

P 714.738.8516

KBI has monitored these bins with the same hand held thermal meter used in our experiments and even when thoroughly agitated by dumping or shoveling the batteries, there is no measurable increase in temperature.

3) The transportation of dry cell batteries being shipped for recycling or disposal are subject to wide variations of temperatures in the mode of transportation. Dry cell batteries are commonly stored in steel drums and in direct sunlight. In certain geographic areas high ambient temperatures can surpass 120 degrees F. It is reasonable that a 55 gallon steel drum of dry cell batteries being stored or transported in temperatures of 120 degrees or greater can have an internal temperature closer to 200 degrees. Even If the internal temperature of a container exceeds 100 degrees F, it has exceeded the temperature of the spent test batteries used in this test.

Request for Concurrence

KBI seeks the department's concurrence that based on the above testing, and the design and chemical composition of spent dry cell alkaline batteries that spent batteries, by design are incapable of generating a dangerous evolution of heat, when being transported for disposal and or recycling.

As shown by the test data, if you concur, then our interpretation of 49 CFR 173.21(c) and Special Provision 130 allow for the shipment of spent dry cell alkaline batteries without further preventative measures as spent dry cell alkaline batteries do not represent a risk of the dangerous evolution of heat during transportation and that adequate safety measures as prescribed by 49 CFR 173.21(c) and Special Provision 130 are met by the inherent design characteristics of these spent batteries.

Please contact my office with any comments or questions.

Sincerely,

Paul D. Johnson
Director of Environmental Affairs
Kinsbursky Brothers Supply Inc.

P 714.738.8516

U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

JUN 23 2009

Mr. Josh Lynch
Pinellas County Utilities
2990 110th Ave. North
St. Petersburg, FL 33716

Ref. No.: 09-0135

Dear Mr. Lynch:

This is in response to your May 21, 2009 letter concerning the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to shipments of 1.5-volt (AA, AAA, C, D) and 9-volt dry cell alkaline batteries collected for transportation through a county recycling program. You currently package the batteries for transportation as follows:

1. The non-rechargeable batteries (AA, AAA, C, D and 9-volt) are placed positive face up in a box to ensure that no movement occurs during the shipment that would lead to a short circuit or possible chemical leakage.

2. The boxes are closed, sealed, and securely stacked inside a plastic lined 55-gallon sealable metal drum.

You ask if the batteries that are prepared for transportation as described would satisfy the requirement of the HMR to protect them against: (1) a dangerous evolution of heat; (2) short circuits; and (3) damage to the battery terminals during transportation.

The answer is yes. Special Provision 130 excepts dry batteries not specifically covered by another entry in the Hazardous Materials Table from regulation under the HMR when they are securely packaged and offered for transportation in a manner that prevents a dangerous evolution of heat and protects against short circuits. The measures you describe satisfy these requirements.

Spent 1.5-volt alkaline dry cell batteries are not likely to generate a dangerous quantity of heat nor are they likely to short circuit or create sparks when they are transported in a packaging with no other battery types or chemistries present. You should be aware, therefore, that it is the opinion of this Office that, when transported by highway or rail

and separated from other types of batteries of different sizes or chemistries, spent 1.5-volt alkaline batteries do not pose an unreasonable risk in transportation and are not subject to regulation under the HMR.

I trust this satisfies your inquiry. If we can be of further assistance, please contact us.

Sincerely,

Charles E. Betts
Chief, Standards Development
Office of Hazardous Materials Standards

Eichenlaub
§ 173.159
§ 172.101
Batteries
09-0135

Pinellas County UTILITIES

05/21/09

Re: Battery Recycling Advisory Letter

Attn: PHH–10
U.S. DOT
PHMSA Office of Hazardous Materials Standards
East Building
1200 New Jersey Avenue, SE.
Washington, DC 20590–0001

To whom it may concern at the U.S. DOT,

My name is Josh Lynch and I'm writing in regards to the DOT PHMSA battery recycling advisory letter that was sent out on April 3rd of this year. I work for a household hazardous waste (HHW) facility in Pinellas County that currently collects batteries from the public. I am currently their Utilities Chemist.

I have been in contact with Daniel Derwey, your senior hazardous materials investigator, and he has instructed me to send a formal letter and pictures of how we intend to transport our alkaline batteries. I have already received positive vocal affirmation for this but need something in writing stating approval. Our contractor also has shown their consent.

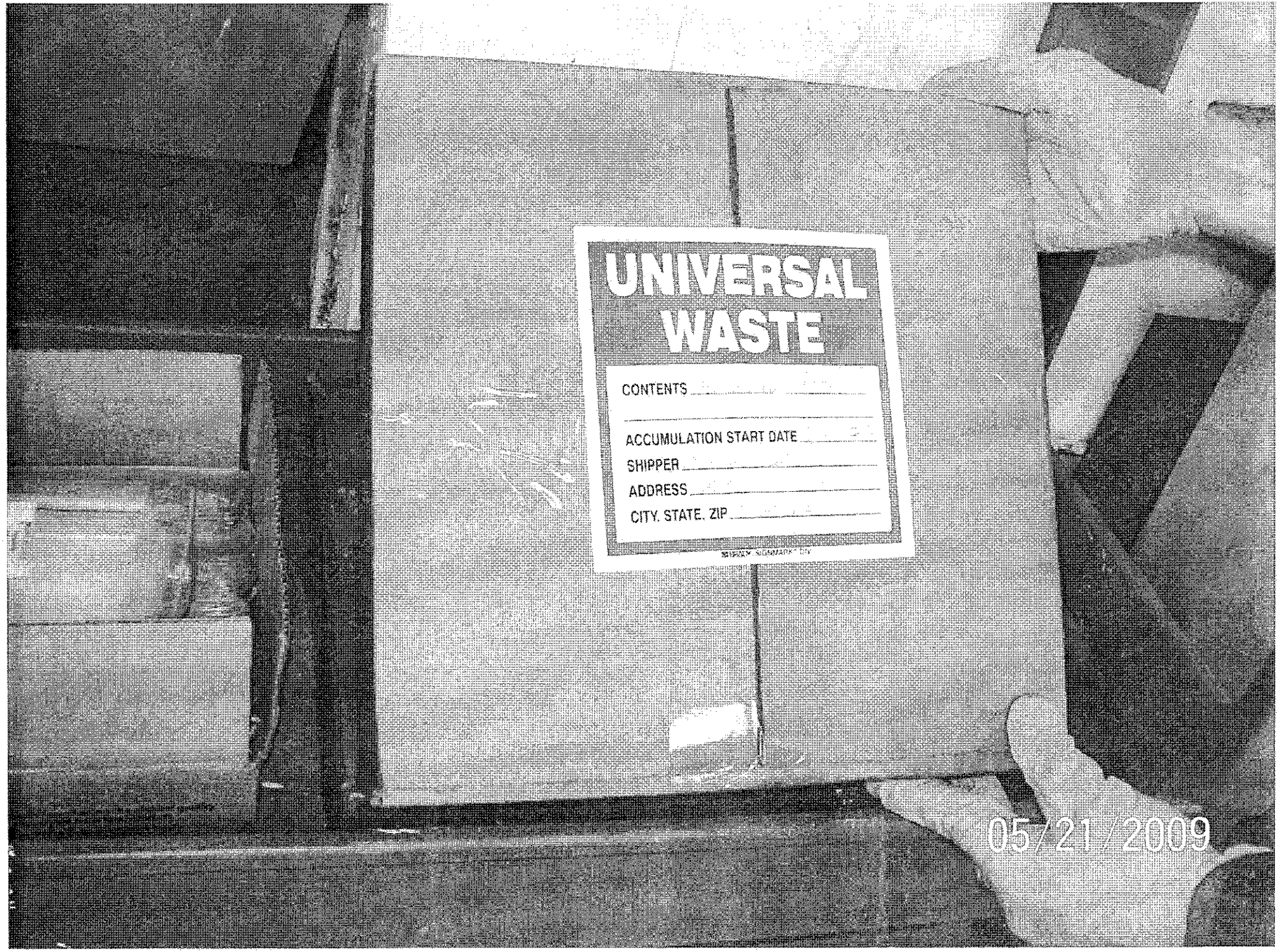
For our non-rechargeable batteries (AA, AAA, C, D, and 9-volt) we will be placing them compactly, positive face up in a box to ensure that no movement occurs during shipment which could lead to a short circuit or possible chemical leakage (see picture). From there we will be closing and sealing said boxes. From there we will proceed one of two ways:

1) Once they are properly sealed we will then proceed to stack them in a lined (plastic lining) 55 gallon sealable metal drum. The boxes are uniform and large enough that each corner of the box will touch the side of the plastic lined drum – each diagonal of the box will equal the diameter of the drums width to ensure a compact fit (see picture), or

2) After they are boxed and sealed we will palletize and shrink wrap these 12" x 12" x 2" boxes about 3 to 4 stacks high. This lower height stack will ensure that the batteries weight wont become too much of a factor.

As stated I just need written confirmation that this packing process complies with DOT standards for shipping alkaline batteries and was given this address. If you could respond in a timely manner it would be greatly appreciated. You can e-mail me at jlynch@pinellascounty.org or mail me back at:

Josh Lynch
2990 110th Ave. North
St. Petersburg, FL 33716
Phone: (727) 464-7735
jlynch@pinellascounty.org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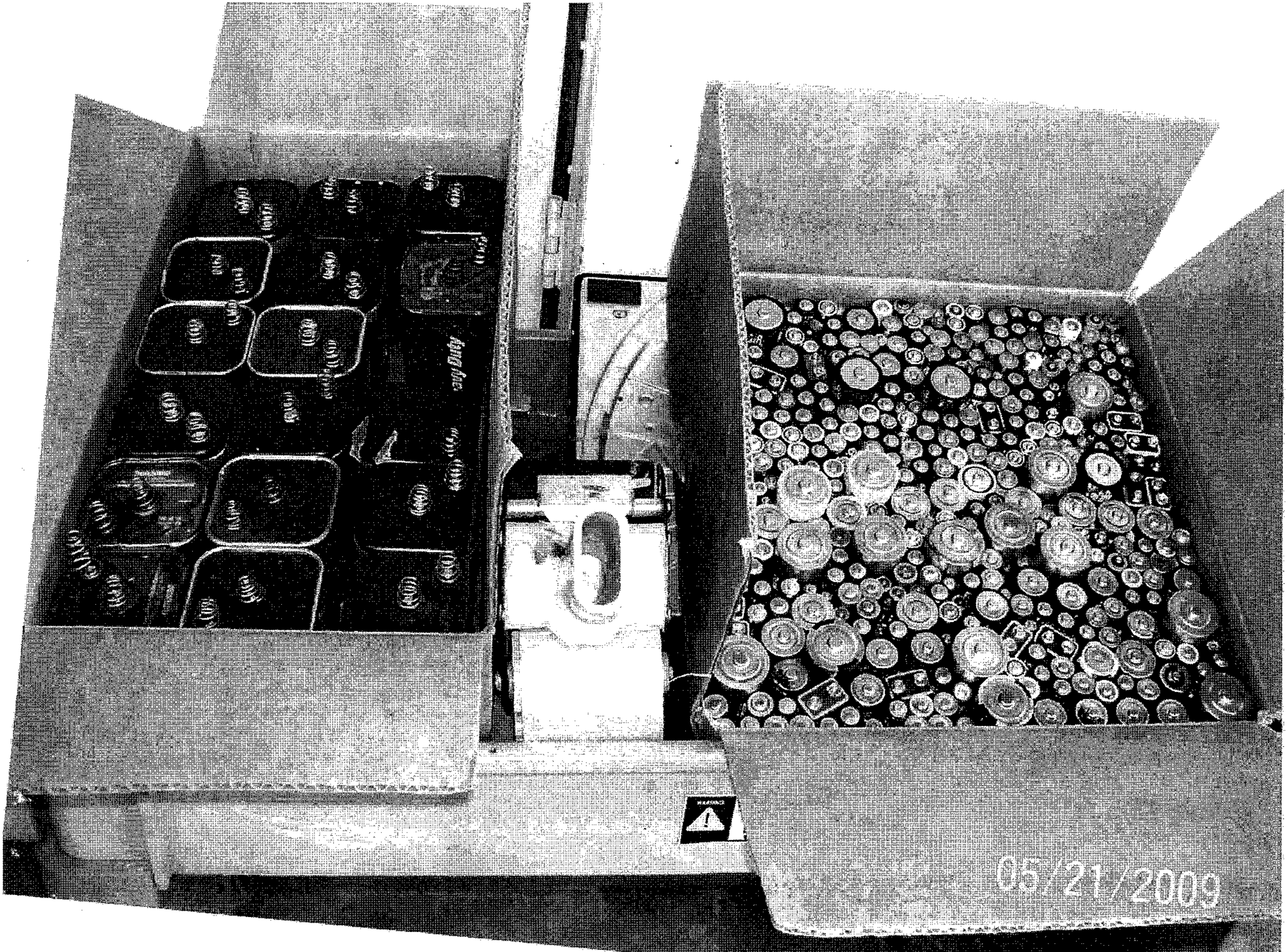
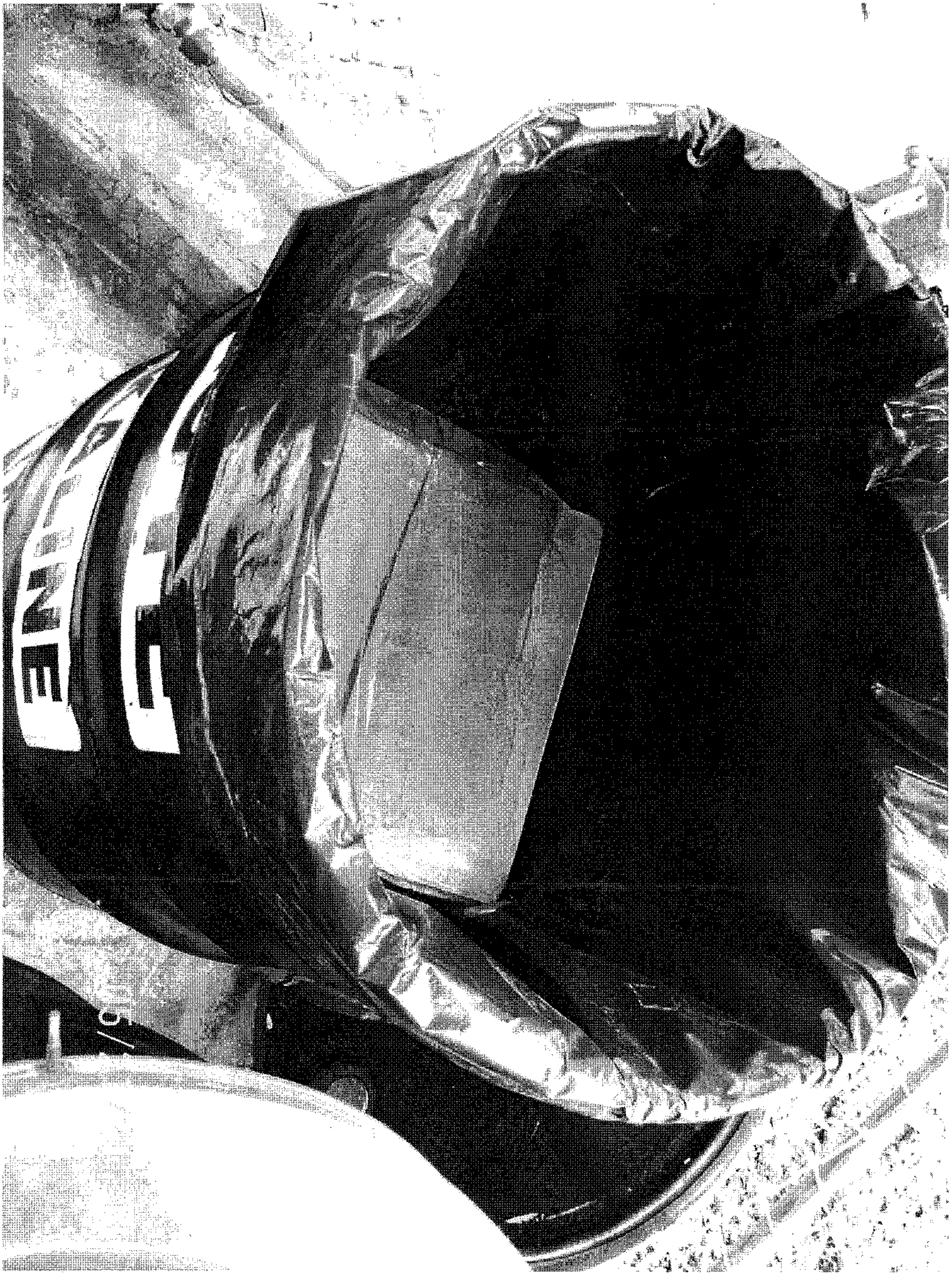
CONTENTS
ACCUMULATION START DATE
SHIPPER
ADDRESS
CITY, STATE, ZIP
05/21/2009


05/21/2009



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave., SE
Washington, DC 20590

JUN 23 2009

Mr. George Kerchner
Wiley Rein LLP
1776 K Street NW
Washington, DC 20006

Ref. No.: 09-0112

Dear Mr. Kerchner:

This is in response to your May 6, 2009 letter concerning the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to shipments of spent batteries collected though a county recycling program. Your questions are paraphrased and answered below:

Q1. Are shipments of spent batteries transported in county vehicles operated by contract employees considered "in commerce" and thus subject to the HMR?

A1. As specified in § 171.1, the HMR govern the safe transportation of hazardous materials in commerce. A state agency or local jurisdiction that transports hazardous materials for governmental purposes using its own personnel is not engaged in transportation in commerce and, therefore, is not subject to the HMR. However, if the state agency or local jurisdiction transports hazardous materials for a commercial purpose, utilizes contract personnel to transport the materials, or offers a hazardous material for transportation to a commercial carrier, then the HMR apply.

Q2. Would spent 1.5-volt alkaline batteries sorted from other battery chemistries and placed into a plastic lined 55-gallon drum meet the requirements of § 172.102(c), Special Provision (SP) 130 to prevent a dangerous evolution of heat and short circuits?

A2. Special Provision 130 excepts dry batteries not specifically covered by another entry in the Hazardous Materials Table from regulation under the HMR when they are securely packaged and offered for transportation in a manner that prevents a dangerous evolution of heat and protects against short circuits. Spent 1.5-volt alkaline dry cell batteries are not likely to generate a dangerous quantity of heat nor are they likely to short circuit or create sparks when they are transported in a packaging with no other battery types or chemistries present. Therefore, it is the opinion of this Office that, when transported by highway or rail

and separated from other types of batteries of different sizes or chemistries, spent 1.5-volt alkaline batteries do not pose an unreasonable risk in transportation and are not subject to regulation under the HMR.

I trust this satisfies your inquiry. If we can be of further assistance, please contact us.

Sincerely,

Charles E. Betts
Chief, Standards Development
Office of Hazardous Materials Standards

Leary
§172.102 SP 189
Batteries
09-0112

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May 6, 2009

George Kerchner
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Ms. Susan Gorsky
Pipeline and Hazardous Materials Safety Administration
United States Department of Transportation
1200 New Jersey Avenue SE, second floor
Washington, D.C. 20590-0001

Re: Request for Interpretation on Shipping Spent Batteries for Recycling

Dear Ms. Gorsky:

I am writing to request the U.S. Department of Transportation's (DOT) interpretation on the requirements of 49 CFR §172.102, Special Provisions 130, 188 and 189 as they apply to shipments of spent (used) "dry cell" batteries (e.g., alkaline) and lithium/lithium ion batteries that are being transported for recycling.

Background

We are aware of several counties that operate spent battery collection and recycling programs, some of which have been operating for nearly twenty years. One particular county has collected 4.8 million pounds of batteries since 1990 from about 130 host sites dispersed throughout the County. This particular program has not had a transportation incident where batteries caused a fire, violent rupture, explosion or dangerous evolution of heat.

Many of these counties have the same logistics arrangements. For example, host sites include such places as public libraries, retail stores and city halls where people drop off used batteries of all types into large plastic containers. When containers are nearly full, the county's contractor picks up the batteries using a county vehicle, and transports them within the same day to the contractor's sorting and packaging facility. The containers of mixed batteries can weigh about 150-200 pounds each.

After the batteries arrive at a contractor's facility, the contractor sorts the batteries by chemistry and packages them for transport. The purpose of sorting and packaging is three-fold: first to consolidate the batteries into fewer shipments; second to meet the specifications of the recycling or disposal facilities; and third to prevent the dangerous evolution of heat. Specifically, the terminals of lithium and lithium-ion batteries are taped then placed into plastic-lined, sealed drums. Other batteries are sorted by type and placed directly into plastic-lined, sealed steel drums.

When a truckload of batteries has accumulated at a contractor's facility, the county arranges for ground shipment of the drums by a hazardous waste transporter to recycling, metal recovery, or other management facilities.

For reference, the table below lists the weight, in pounds of batteries shipped to disposal facilities in one particular county in 2008. As noted, over 80% of the batteries collected are alkaline and zinc carbon.

Battery Chemistry	Year 2008	Percent
Alkaline	186,177	72%
Zn/Carbon	28,941	11%
Lead Acid Gel Cells	20,774	8%
NiCad	14,635	6%
Ni Metal Hydride	3,098	1%
Lithium Ion	2,657	1%
Lithium	2,178	1%
Mixed Button	556	0%
Mercury	-	0%
Total (in pounds)	259,016	100%

The attached Exhibit A provides additional data on the types and weights (in pounds) of batteries collected by one county from1999 to 2007

Request for Interpretation

There are several issues that require clarification from DOT that may significantly impact county battery collection programs.

First, in the situation described above, a county contracts with a company to have its employees drive County vehicles to pick up and transport containers of spent batteries from public facilities and retail stores. We do not believe these shipments are "in commerce" and subject to the U.S. hazardous materials regulations (HMR) because they are being transported in county vehicles for noncommercial, local government purposes. Therefore, we would like confirmation from your office that these shipments are not subject to the HMR.

Second, as noted above, over 80% of the spent batteries collected by counties are alkaline and zinc carbon. When new, these batteries have a low voltage (no more

than 1.5 V) and present a very low risk in transportation. When spent, these batteries have very little electrical potential and therefore present even less of a risk in transportation. We believe that when spent alkaline and zinc carbon batteries are sorted from other battery chemistries and placed into plastic-lined, sealed 55-gallon drums, it meets the requirement of Special Provision 130. That is, the sorted spent batteries have been prepared and packaged for transport in a manner to prevent a dangerous evolution of heat and short circuits. Therefore, we would like confirmation from your office that this sorting and packaging procedure for spent alkaline batteries meets the requirements of Special Provision 130.

* * * * *

We would appreciate your immediate attention to this request for interpretation since it has significant implications on many county-operated battery collection and recycling programs throughout the U.S.

Thank you for your assistance.

Sincerely,

George A. Kerchner

George A. Kerchner

EXHIBIT A

Battery Type	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alkaline	191,297	205,095	212,761	218,016	213,196	187,599	190,440	150,699	186,186
Zn/Carbon	60,423	56,286	53,105	52,523	45,400	36,813	35,797	27,388	32,621
NiCad	12,970	21,665	12,656	14,361	9,390	16,533	12,115	10,154	15,740
Mixed Button	-	-	1,822	798	-	1,840	-	-	691
Mercury	-	-	-	1,619	-	-	-	62	-
Lithium	2,000	2,842	3,007	2,779	1,959	4,205	5,141	2,934	1,503
Lithium Ion	-	-	-	372	-	1,878	-	-	2,749
Lead Acid Gel Cells	14,884	14,891	11,647	13,877	17,558	17,398	14,000	14,000	12,000
Nickel Metal Hydride	-	449	3,988	1,914	2,394	2,398	2,872	1,717	3,701
Total	281,573	301,228	298,985	306,259	289,896	268,664	260,365	206,954	255,191

Legislative and Regulatory Issues Affecting Management of Municipal Solid Waste
September 2009

Table of Contents

I.	The American Clean Energy and Security Act	1
II.	Senate Climate Change Legislation	1
III.	EPA Issues Final Reporting Rule	2
IV.	IRS Ruling on the Tax Exempt Status of Recycling Facilities	3
V.	EPA to Release Endangerment Finding in the Next Few Months	3
VI.	Revisions to Landfill New Source Performance Standards	4
VII.	AP-42 Updates Under Way	4
VIII.	Treasury Department Accepting Applications for Energy Grants	4

I. The American Clean Energy and Security Act

On Friday June 26, 2009 the U.S. House of Representatives passed the American Clean Energy and Security Act of 2009, HR 2454 (the Waxman-Markey bill) by a vote of 219 to 212. The provisions in this bill affecting solid waste are similar to those in prior drafts.

Landfills would not be included under the cap and energy from landfill gas (LFG) recovery would be eligible for renewable energy credits in a federal renewable portfolio standard. The renewable portfolio standard would include "qualified waste-to-energy" as an eligible renewable source. It would be subject to a number of stipulations and only the non-fossil biogenic portion of the waste would qualify for the renewable energy credits. Like landfills, waste-to-energy operations would not be regulated under the cap if they generate 95% or more of their energy from municipal solid waste.

The biggest source of uncertainty in this bill is the offsets program. EPA is directed to develop the criteria for a climate-credit offset program and nothing specifically in the language would bar LFG projects from qualifying for selling offsets. In fact, the House Energy and Commerce Committee report includes "reducing emissions of methane from solid waste landfills" as an example of an offset project and states its expects EPA to evaluate methane collection and flaring from landfills as potential offsets projects. However, Section 811 of the bill directs EPA to regulate through NSPS rulemakings, uncapped sources that individually exceed 10,000 tons of CO2e and that in aggregate were responsible for emitting at least 20% of the uncapped GHG emissions. If EPA were to issue revised NSPS standards for landfills, both landfills now subject to existing NSPS requirements and landfills not currently subject to NSPS, might not be eligible to sell offsets credits, since the reductions would not be voluntary or "additional. "

Credits from the destruction of landfill methane are very valuable to the offsets markets. In fact, EPA estimates that allowing landfill and coal mine methane (which would also be excluded by additional NSPS) as offsets projects instead of covering them under NSPS would increase domestic offset usage by 45% and decrease allowance prices by 9%.

Either eliminating the expanded NSPS provisions providing a phase in period for them would provide credit for voluntary, early reduction of greenhouse gas emissions through landfill gas collection and would increase the availability of offsets, and reduce the near-term costs of compliance for industries that will be subject to the new emissions cap requirements. SWANA intends to advocate these types in the Senate Bill (see below).

II. Status of Senate Climate Change Legislation

On September 30, 2009, Senators Boxer and Kerry revealed their long awaited climate change legislation draft. This draft

seeks to set emission reduction targets for greenhouse gases and meet them using market incentives. Several of the provisions would have direct impact on solid waste operations.

It is important to note that it is still very early in the process and as committee reviews this draft some of the language may change.

The draft sets more stringent reduction targets than those of the House bill (HR 2454) passed in June. It aims to reduce emissions to 20% below 2005 levels by 2020 and 80% below 2005 levels by 2050. According to the bill summary this number was chosen as it is agreed upon by scientists as the minimum level at which the catastrophic effects of climate change can be avoided. The House bill would have reduced emissions to 17% below 2050 levels by 2020.

This legislation does not include a renewable portfolio standard. The Energy and Natural Resources Committee has jurisdiction on that issue and already passed their legislation this summer. Their legislation would include landfill gas and "qualified waste-to-energy" as eligible sources of renewable energy.

Pollution Reduction and Investment (PRI)

In statements Boxer has emphasized that this bill is not a command-and-control approach. Instead the bill refers to its mechanism for reducing greenhouse gases as "Pollution Reduction and Investment". According to the bill summary, PRI is a "mechanism that sets pollution reduction targets, then uses market incentives to find the most affordable paths to achieve them".

This approach would still require covered sources to hold one carbon credit for each ton of CO2e they emit. The amount of carbon credits that are available each year would decrease over time. The distribution of these allowances has yet to be determined and will most likely be the source of debate in the markups. The investment aspect of this approach is that this system would create incentives for companies to reduce their emissions instead of purchasing allowances.

Neither landfills nor waste-to-energy facilities would be covered sources, as this bill adopts the same language as the House bill that excludes them.

State Grants Programs

Section 154 of the draft is a grants program for state recycling programs. This program aims to improve the efficiency of collection and processing of recyclables as well as the manufacturing of products made from recyclable materials.

This program would have a direct benefit on county and municipal recycling programs. The localities that qualify under the eligibility requirements set forth by the draft would receive one-third of the grants to improve their programs whether through better public education initiatives or implementing pay-as-you-throw programs.

Section 161 of the draft would provide grants to states to help them achieve their renewable portfolio standards. Both waste-to-energy and landfill gas are qualified renewables under this provision.

Treatment of Landfill Methane Destruction Projects

Like the House bill, this draft provides the framework for an offsets program but leaves the specific details out. Section 733 lists landfill methane destruction projects as eligible project types. In contrast to the House bill, this draft would not initially directly impose additional performance standards on landfill methane emissions. Instead Section 811 states that the administrator shall not promulgate new source performance standards on sources that are eligible as offsets under Section 737 (such as landfills) before January 1, 2020.

Future of the Draft

Chairman Boxer has scheduled hearing on this bill for the week of October 19th with markups scheduled for the following week. Despite this schedule, it is unlikely there will be a floor vote this year on the legislation. Many of the key committees which share jurisdiction are heavily focused on health care legislation at this point.

III. EPA Issues Final Version of Mandatory Reporting Rule

On September 22, 2009 the EPA Administrator signed the final rule for mandatory reporting of greenhouse gases (GHG). SWANA previously commented on this ruling during the spring comment period, but many of our concerns went

unaddressed. Both landfills and waste-to-energy facilities would be required to report their GHG emissions if above 25,000 tons of CO2e annually.

This ruling would cover all the waste-to-energy facilities in the country. If they process over 250 tons per day they would have to have continuous emissions monitoring equipment installed to calculate their GHG emissions. For facilities processing less than 250 tons per day, emissions factors would be used to calculate the GHG emissions. SWANA had requested that all WTE facilities be allowed to use emissions factors, but this comment was not incorporated. In addition WTE facilities would need to do quarterly testing to determine the amount of anthropogenic emissions versus biogenic emissions they create.

Landfills that generate more than 25,000 tons of CO2e of methane would be required to report their GHG emissions, regardless of whether or not the methane is destroyed. Landfills must calculate their generation rate as well as emission and destruction rate. Landfills with CEMS installed may use this equipment to estimate their emissions.

All reporting facilities would have to begin monitoring January 1, 2010 in order to report in March of 2011. The EPA did allow a ninety day grace period in which sectors of the reporting population may use "best available information" to estimate their emissions.

We will continue to review this ruling and will provide members with more information as we attain it.

IV. IRS Ruling on the Tax Exempt Status of Recycling Facilities

On September 15, 2009 the Treasury Department issued proposed regulations regarding the issuance of tax-exempt bond financing for recycling facilities. The proposed regulations represent a vast improvement over the previous version introduced in 2004.

Some of the specific issues addressed are:

- No Value Standard – In 1999, the IRS imposed a "no value" test for discarded materials. In order to be eligible, applicants had to show that the discarded materials they used had no value in the recycling process. This administrative hurdle was nearly impossible to meet and its removal is a vast improvement.
- Definition of recycling process – Industry had requested that the recycling process covered include the reconstitution of material that can be sold as comparable material produced from virgin material. The current regulation moves towards that goal by defining the eligible recycling process as beginning at the first application of recycling activity and ending at the point of completion of the "first useful product" from the solid waste.
- Elective retroactive application of the final regulations – Because of the uncertainty caused by the "no value" test, industry has requested that the regulations be retroactive electively.

Comments are due on December 15 and a hearing is scheduled for early January 2010. SWANA intends to participate with an industry coalition to submit comments on our recommended changes.

V. EPA to Release Endangerment Finding in the Next Few Months

On August 31, 2009, the Environmental Protection Agency sent a draft rule to the White House Office of Management and Budget regarding the regulation of greenhouse gases. The same day, EPA Administrator Lisa Jackson was quoted as saying EPA intended to declare greenhouse gases as a dangerous pollutants and a threat to public health. She has not indicated an exact date that EPA would make the ruling but said it would be in the next few months.

If EPA moves forward with this ruling then greenhouse gases would be regulated under the Clean Air Act. This could result in many provisions of the Clean Air Act being used to control greenhouse gases (e.g. NSPS, PSD, MACT, mobile source controls etc.). Landfills, WTE plants, waste collection operations and many other solid waste management operations could be subject to controls.

EPA and the Administration have both indicated they would prefer to see greenhouse gases controlled via legislative approaches and hope that Congress will move forward with the cap-and-trade legislation currently under consideration.

VI. Revisions to Landfill New Source Performance Standards

On August 18, 2009 EPA conducted the first of what looks to be many stakeholder meetings regarding landfills. The main topic of conversation was revisions to the New Source Performance Standards (NSPS) for landfills. SWANA was present at this meeting as were other landfill industry representatives.

Also attending was the Environmental Defense Fund, who in the fall of 2008 announced their intentions to sue the Environmental Protection Agency for failure to update the NSPS for landfills. According to Section 111(b)(1)(B) of the Clean Air Act the EPA must review its new source performance standards every eight years. The last time these standards were updated was in 1996. Section 111 of the Clean Air Act requires EPA to set a best demonstrated technology standard for controlling emissions. EDF's position is that technology has advanced significantly over the past decade and the new standards should reflect these changes. In 1996, methane emitted from landfills was mostly controlled by flaring. Today, much of this methane can be captured to create energy. They did indicate in their Notice of Intent that they would like to resolve this without legal action and these meetings may be a first step to resolve this.

In 2002 and again in 2006 SWANA offered comments on updates to the NSPS. In our comments we emphasized the following points: clarify third party owner issues, refine definition of treatment and removal of GCCS requirement for closed landfills. Clarifying third party issues would encourage more landfill gas recovery projects. Under the current regulation there is ambiguity regarding compliance obligations among multiple owners. In addition to addressing these concerns EPA has offered a number of potential revisions to the NSPS to help address the concerns of EDF and encourage more energy recovery. The suggestions range from earlier installation of controls to using triggers different from waste in place or Non-methane organic compound emissions. We look forward to working with EPA to improve these standards.

VII. AP-42 Updates Under Way

On August 19, 2009 EPA conducted a meeting with the landfill industry to discuss potential revisions to the landfill Chapter of AP-42. In May, SWANA and NSWMA submitted comments to EPA regarding our concerns with proposed emissions factors. In order to help EPA improve these factors SWANA members and others in the industry submitted source tests to show a more accurate representation of emissions factors in the country. In all industry submitted nearly 300 source tests. Because of the plethora of new information available to EPA, it is taking longer to address comments than originally anticipated. These factors are important because they affect federal, state and local air quality permits. We will keep members apprised of EPA's progress addressing our concerns.

VIII. Treasury Department Accepting Applications for Energy Grants

On July 31, 2009 the Treasury Department began accepting applications for grants in lieu of tax credits for specified energy projects. As part of the American Recovery and Reinvestment Act of 2009, Section 1603, operations that qualified for Section 45 and 48 tax credits may elect to receive grant payments worth up to 30% the capital cost of the facility. WTE and LFG operations would both qualify if owned by a tax-payer and placed in service either in 2009 or 2010. Additionally, projects that are placed in service after 2010 but began construction in 2009 or 2010 would qualify. It is expected that the Section 1603 program will temporarily fill the gap created by the diminished investor demand for tax credits.

The amount currently available for the program is $3 billion dollars and the Energy and Treasury Departments believe this will support an estimated 5000 new renewable projects.

Applicants may apply at the following website http://www.treas.gov/recovery/1603.shtml. Applications must be received by October 1, 2011. Decisions will be made by the Treasury Department within 60 days of receiving an application. More information is available in the guidance document attached.

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

AUG 13 2009

Mr. George Kerchner
Wiley Rein LLP
1776 K Street NW
Washington, DC 20006

Ref. No.: 09-0150

Dear Mr. Kerchner:

This letter serves as a follow-up to the May 23, 2009 letter you received from this office concerning the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to shipments of spent batteries collected though a county recycling program. You provide additional test data to demonstrate that used 6-volt zinc carbon batteries and 9-volt alkaline batteries contain very little, if any, energy content and that they are not capable of producing a dangerous evolution of heat even when short circuited.

Based on the test data provided with your letter, it is the opinion of this Office that used 6-volt zinc carbon batteries and 9-volt alkaline batteries are not likely to generate a dangerous quantity of heat nor are they likely to short circuit or create sparks when they are transported in a packaging with no other battery chemistries present. Therefore, when transported by highway or rail and separated from other types batteries of different chemistries, used alkaline and zinc carbon batteries do not pose an unreasonable risk in transportation and are not subject to regulation under the HMR.

I trust this satisfies your inquiry. If we can be of further assistance, please contact us.

Sincerely,

Charles E. Betts
Chief, Standards Development
Office of Hazardous Materials Standards

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May 6, 2009

George Kerchner
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Ms. Susan Gorsky
Pipeline and Hazardous Materials Safety Administration
United States Department of Transportation
1200 New Jersey Avenue SE, second floor
Washington, D.C. 20590-0001

Re: Request for Interpretation on Shipping Spent Batteries for Recycling

Dear Ms. Gorsky:

I am writing to request the U.S. Department of Transportation's (DOT) interpretation on the requirements of 49 CFR §172.102, Special Provisions 130, 188 and 189 as they apply to shipments of spent (used) "dry cell" batteries (e.g., alkaline) and lithium/lithium ion batteries that are being transported for recycling.

Background

We are aware of several counties that operate spent battery collection and recycling programs, some of which have been operating for nearly twenty years. One particular county has collected 4.8 million pounds of batteries since 1990 from about 130 host sites dispersed throughout the County. This particular program has not had a transportation incident where batteries caused a fire, violent rupture, explosion or dangerous evolution of heat.

Many of these counties have the same logistics arrangements. For example, host sites include such places as public libraries, retail stores and city halls where people drop off used batteries of all types into large plastic containers. When containers are nearly full, the county's contractor picks up the batteries using a county vehicle, and transports them within the same day to the contractor's sorting and packaging facility. The containers of mixed batteries can weigh about 150-200 pounds each.

After the batteries arrive at a contractor's facility, the contractor sorts the batteries by chemistry and packages them for transport. The purpose of sorting and packaging is three-fold: first to consolidate the batteries into fewer shipments; second to meet the specifications of the recycling or disposal facilities; and third to prevent the dangerous evolution of heat. Specifically, the terminals of lithium and lithium-ion batteries are taped then placed into plastic-lined, sealed drums. Other batteries are sorted by type and placed directly into plastic-lined, sealed steel drums.

When a truckload of batteries has accumulated at a contractor's facility, the county arranges for ground shipment of the drums by a hazardous waste transporter to recycling, metal recovery, or other management facilities.

For reference, the table below lists the weight, in pounds of batteries shipped to disposal facilities in one particular county in 2008. As noted, over 80% of the batteries collected are alkaline and zinc carbon.

Battery Chemistry	Year 2008	Percent
Alkaline	186,177	72%
Zn/Carbon	28,941	11%
Lead Acid Gel Cells	20,774	8%
NiCad	14,635	6%
Ni Metal Hydride	3,098	1%
Lithium Ion	2,657	1%
Lithium	2,178	1%
Mixed Button	556	0%
Mercury	-	0%
Total (in pounds)	259,016	100%

The attached Exhibit A provides additional data on the types and weights (in pounds) of batteries collected by one county from1999 to 2007

Request for Interpretation

There are several issues that require clarification from DOT that may significantly impact county battery collection programs.

First, in the situation described above, a county contracts with a company to have its employees drive County vehicles to pick up and transport containers of spent batteries from public facilities and retail stores. We do not believe these shipments are "in commerce" and subject to the U.S. hazardous materials regulations (HMR) because they are being transported in county vehicles for noncommercial, local government purposes. Therefore, we would like confirmation from your office that these shipments are not subject to the HMR.

Second, as noted above, over 80% of the spent batteries collected by counties are alkaline and zinc carbon. When new, these batteries have a low voltage (no more

than 1.5 V) and present a very low risk in transportation. When spent, these batteries have very little electrical potential and therefore present even less of a risk in transportation. We believe that when spent alkaline and zinc carbon batteries are sorted from other battery chemistries and placed into plastic-lined, sealed 55-gallon drums, it meets the requirement of Special Provision 130. That is, the sorted spent batteries have been prepared and packaged for transport in a manner to prevent a dangerous evolution of heat and short circuits. Therefore, we would like confirmation from your office that this sorting and packaging procedure for spent alkaline batteries meets the requirements of Special Provision 130.

* * * * *

We would appreciate your immediate attention to this request for interpretation since it has significant implications on many county-operated battery collection and recycling programs throughout the U.S.

Thank you for your assistance.

Sincerely,

George A. Kerchner

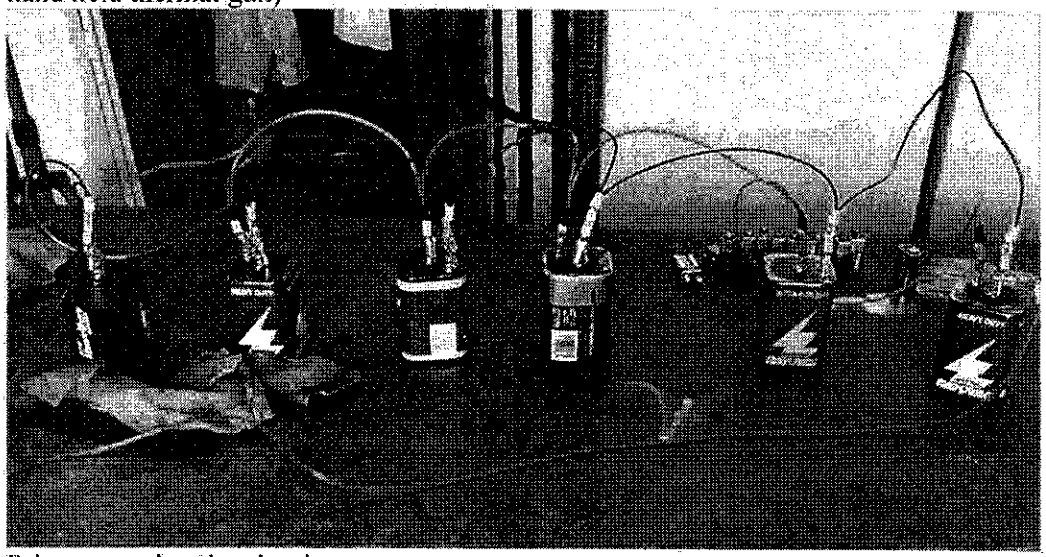
George A. Kerchner

Table 3

6 used 6 volt lantern batteries: ambient temp76 degree Fahrenheit 6.2 volt circuit at the beginning of the test

Cell Voltage	Time	11:20	11:24	11:28	11:33	11:35
6.3	Temp cell 1	74	75	77	77	76
0.3	Temp cell 2	75	76	77	78	77
0.9	Temp cell 3	75	75	76	78	77
1.8	Temp cell 4	76	75	78	77	78
6.2	Temp cell 5	75	78	77	78	77
2.4	Temp cell 6	75	79	78	78	78

Experiment terminated due to lack of result after 15. Min. (Temp variations are within the accuracy of the hand held thermal gun)



Prior to starting the circuit

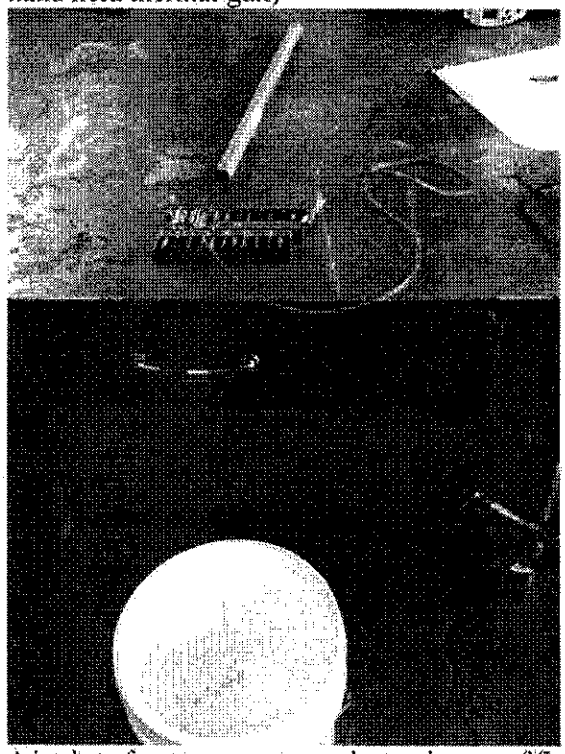
Closed circuit

Table 4

12 used 9 volt batteries: ambient temp77 degree Fahrenheit 39.5 volt circuit at the beginning of the test

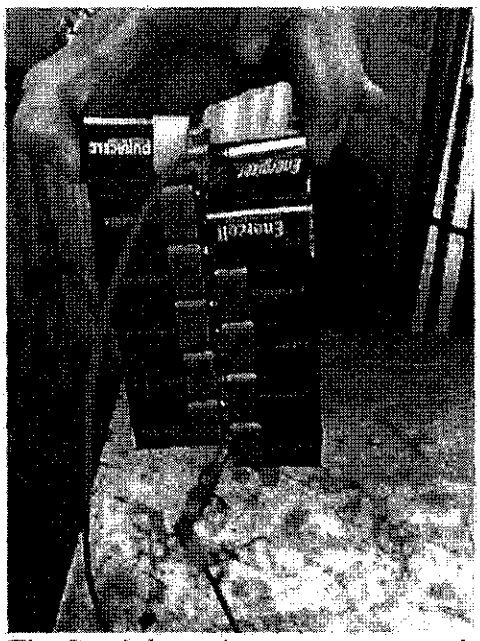
Cell Voltage	Time	11:39	11:41	11:45	11:49	11:54
8.2	Temp cell 1	75	83	80	77	77
8.2	Temp cell 2	76	77	78	77	77
7.0	Temp cell 3	77	76	76	77	78
5.0	Temp cell 4	77	77	77	78	78
2.5	Temp cell 5	76	78	78	77	76
2.6	Temp cell 6	78	80	78	75	75
1.0	Temp cell 7	78	78	77	76	77
0.1	Temp cell 8	75	77	78	77	77
1.2	Temp cell 9	76	77	77	78	76
0.5	Temp cell 10	77	78	76	76	75
1.2	Temp cell 11	75	76	77	76	77
0.2	Temp cell 12	78	78	77	77	77

Experiment terminated due to lack of result after 15. Min. (Temp variations are within the accuracy of the hand held thermal gun)



A bucket of water was set near the test in case of fire

Hand held thermal gun used to monitor temp.



The 9 volt batteries were connected positive to negative. Even with a 39.5 volt circuit the batteries were not noticeable warm to the touch even when securely locked into each other.


Enercell
ALKALINE BATTERY
Energizer
DURACELL
DURACELL
DURACELL

EXHIBIT A

Battery Type	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alkaline	191,297	205,095	212,761	218,016	213,196	187,599	190,440	150,699	186,186
Zn/Carbon	60,423	56,286	53,105	52,523	45,400	36,813	35,797	27,388	32,621
NiCad	12,970	21,665	12,656	14,361	9,390	16,533	12,115	10,154	15,740
Mixed Button	-	-	1,822	798	-	1,840	-	-	691
Mercury	-	-	-	1,619	-	-	-	62	-
Lithium	2,000	2,842	3,007	2,779	1,959	4,205	5,141	2,934	1,503
Lithium Ion	-	-	-	372	-	1,878	-	-	2,749
Lead Acid Gel Cells	14,884	14,891	11,647	13,877	17,558	17,398	14,000	14,000	12,000
Nickel Metal Hydride	-	449	3,988	1,914	2,394	2,398	2,872	1,717	3,701
Total	281,573	301,228	298,985	306,259	289,896	268,664	260,365	206,954	255,191