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U.S. Department of Energy
Hanford Site

OCT 07 2009

09-ESQ-346

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EDMC

Mr. Jack Boller (OCE-127)
U.S. Environmental Protection Agency
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

Dear Mr. Boller:

U.S. DEPARTMENT OF ENERGY (DOE) RESPONSE TO NOTICE OF VIOLATION (NOV)
REGARDING UNIVERSAL WASTE PRACTICES

- References:
1. EPA letter from E. J. Kowalski to S. J. Olinger, ORP, "Notice of Violation United States Department of Energy, EPA/Ecology ID Number WA7 89000 8967," dated March 3, 2009.
 2. Hanford letter from S. J. Olinger, ORP, and D. A. Brockman, RL, to J. Boller, EPA, "Notice of Violation (NOV) Regarding Universal Waste Practices," 09-ESQ-156, dated March 8, 2009.

This letter transmits the draft Revision 3 of Management Plan for Recycle Materials Administered by Hanford's Centralized Consolidation/Recycling Center (CCRC) (HNF-EP-0863) for the U.S. Environmental Protection Agency (EPA) concurrence as committed in Reference 2.

On March 3, 2009, EPA issued an NOV to the DOE (Reference 1) alleging violations of Washington Administrative Code (WAC):

- WAC 173-303-573(21)(d), Failure to properly label universal waste lamps;
- WAC 173-303-573(22)(c), Failure to properly date universal waste lamps;
- WAC 173-303-573(21)(a), Failure to properly label universal waste batteries; and
- WAC 173-303-573(22)(c), Failure to properly date universal waste batteries.

The approach to resolve the NOV was developed in a meeting held on April 15, 2009, with the support of both the EPA and the Washington State Department of Ecology (Ecology) as committed in Reference 2. Workshops were conducted with participation from EPA, Ecology, DOE, and the prime Hanford Site Contractors to identify revisions to HNF-EP-0863 that address the deficiencies identified in the NOV.

Mr. Jack Boller
09-ESQ-346

-2-

OCT 07 2009

As committed in Reference 2, a draft revision to the HNF-EP-0863 has been prepared for EPA review (Attachment). The draft revision addresses the concerns identified in the NOV and agreements reached during the revision process, including:

- Universal waste will be dated and labeled at each field generating facility;
- Universal waste may be accumulated up to one year in the field prior to transfer to CCRC;
- Universal waste will be labeled with a new accumulation start date upon receipt at the CCRC;
- Universal waste may be accumulated up to one year at the CCRC prior to shipment offsite; and
- Dangerous waste lamps may be crushed in satellite accumulation areas.

HNF-EP-0863 has been separately transmitted to Ecology for approval.

Within 180 days of EPA and Ecology concurrence of the Management Plan, DOE and its contractors will implement the changes to the plan through changes in procedure, training, and practices.

I would like to thank you for your assistance in assuring the HNF-EP-0863 will be compliant with requirements, while still encouraging recycling of universal waste at the Hanford Site. We look forward to your response and closing this NOV.

If you have any questions, please contact Lori A. Huffman, Director, ORP's Environmental Compliance Division, (509) 376-0104, or Stephen R. Weil, Director, RL's Environmental Management Division, (509) 372-0879.


Shirley J. Olinger, Manager
Office of River Protection


David A. Brockman, Manager
Richland Operations Office

ESQ:LAH

Attachment

cc: See page 3

Attachment
09-ESQ-346

Management Plan for Recyclable Materials Administered by
Hanford's CCRC, HNF-EP-0863, Revision 3

HNF-EP-0863
Revision 3
Release 3
Copy No. ___

Management Plan for Recyclable Materials Administered by Hanford's Centralized Consolidation/Recycling Center

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

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Richland, Washington

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HNF-EP-0863
Revision 3
Release 3

Copy No. ___

Management Plan for Recyclable Materials Administered by Hanford's Centralized Consolidation/Recycling Center

C. E. Marple
Mission Support Alliance

Date Published
September 2009

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

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HNF-EP-0863

Revision 3

Copy No. ___

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TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	SCOPE	5
2.1	UNIVERSAL WASTE	5
2.2	ELEMENTAL MERCURY	5
2.3	CRUSHED FLUORESCENT LAMPS	5
2.4	AEROSOL PRODUCTS	6
2.5	LEAD-ACID BATTERIES	6
2.6	ELECTRIC BALLASTS OR CAPACITORS	7
2.7	USED SHOP TOWELS	7
2.8	USED OIL	7
2.9	SPENT ANTIFREEZE	7
2.10	ELECTRONIC EQUIPMENT	7
3.0	STANDARDS FOR MANAGEMENT OF RECYCLABLE MATERIALS AT FACILITIES PRIOR TO CONSOLIDATION AT CCRC	9
3.1	STANDARDS FOR ALL ACCUMULATION AREAS	9
3.1.1	Standards for Recycle Accumulation Areas	9
3.1.2	Standards for Crushing Dangerous Waste Lamps in Satellite Accumulation Areas	10
3.1.3	Standards for Universal Waste Accumulation Areas	10
3.1.4	Standards for Accumulating Elemental Mercury	11
3.2	ACCEPTANCE CRITERIA FOR RECEIPT AT THE CCRC	11
3.3	TRANSPORTATION STANDARDS	12
4.0	STANDARDS FOR MANAGEMENT OF RECYCLABLE MATERIAL AT CCRC	13
4.1	AEROSOL PRODUCTS	13
4.2	ELEMENTAL MERCURY	13
4.3	UNIVERSAL WASTE LAMPS (OTHER THAN CRUSHED), BATTERIES (OTHER THAN LEAD-ACID), AND MERCURY-CONTAINING EQUIPMENT	14
4.4	CRUSHED FLUORESCENT LAMPS	14
4.5	LEAD-ACID BATTERIES	14
4.6	ELECTRICAL BALLASTS OR CAPACITORS	15
5.0	STANDARDS FOR MANAGEMENT OF OTHER RECYCLABLE MATERIALS	17
5.1	USED SHOP TOWELS	17
5.2	USED OIL	18
5.3	SPENT ANTIFREEZE	19
5.4	ELECTRONICS	19
5.4.1	Assumptions	19
5.4.2	Standards for Initial Accumulation of Non-Working CRT's	20
5.4.3	Standards for Initial Accumulation of Non-Working Electronics Other than CRTs	20

APPENDIX

A ECOLOGY APPROVAL LETTERA-i

1.0 INTRODUCTION

In January 1995, a proposal for alternative management of aerosol products, batteries, and light ballasts with dioctyl phthalate (DOP) capacitors was transmitted to the State of Washington, Department of Ecology (Ecology) for approval. The proposal's intent was to encourage recycling by consolidating these materials at a central location in order to make recycling economically feasible. The central location under this plan was called the Centralized Consolidation/Recycling Center (CCRC).

Under the proposal, the CCRC was considered the point of generation where the waste would initially be accumulated. Recyclable material would not be considered to be solid waste until after it was received at the CCRC and the determination had been made concerning the material's disposition. Since this interpretation differed from prior practices, Ecology (as the designated lead regulatory agency) was asked to provide concurrence for the proposal. The proposal described how recyclable material would be managed at facilities and at the CCRC to ensure the protection of human health and the environment. Ecology's concurrence with the proposal was received in April 1995. The letter providing the concurrence noted that the proposal was, "in the spirit of resource conservation and recovery," and encouraged an expanding effort for waste reduction and recycling of commonly generated "nuisance" hazardous waste at the Hanford Site. The letter further noted that regulatory pathways for recycling of commonly generated hazardous wastes could be determined.

The CCRC was established in the 400 Area of the Hanford Site shortly after obtaining Ecology's concurrence. After demonstrating that the three initial recyclable materials could be successfully recycled, Ecology was asked to approve additional recyclable materials. Concurrence to add sodium vapor, mercury vapor, and incandescent lamps was received in October 1996. Concurrence to add mercury and mercury-containing equipment was obtained in January 1998. Several of these recyclable materials are included in the provisions for "universal waste" that were adopted subsequent to receiving Ecology concurrence for the CCRC approach. Revision 2 of the Management Plan updated the original proposal by incorporating universal waste and other regulatory standards and by including information about the approach for managing additional recyclable materials.

A regulatory inspection conducted by the U.S. Environmental Protection Agency (EPA) Region 10 in September 2008 noted deficiencies in field management of universal waste at the Hanford Site. As a result of the inspection, the Management Plan revisions were determined to be necessary to address the deficiencies (i.e., Revision 3). Included in the revision was a change to the Universal Waste (UW) point-of-generation (POG) location. Rather than being at the CCRC, the UW POG location was changed to be at the facilities and/or work areas where UW is accumulated, prior to and/or in preparation for delivery to the CCRC. Per EPA and Ecology agreement, the CCRC will continue to be used for consolidating UW and other recyclable materials, thereby facilitating economy-of-scale efficiencies for Hanford Site recycling activities. Upon Ecology concurrence, this Management Plan supersedes the following documents:

- WHC-EP-0863, *Centralized Consolidation/Recycling Center*. This document was sent to Ecology in January 1995. It contained the initial proposal for management of aerosol

products, batteries, and DOP ballasts as recyclable materials. The proposal was implemented in May 1995 after receiving Ecology concurrence.

- Letter, David L. Lundstrom, State of Washington, Department of Ecology (Ecology), to James Rasmussen, RL, et al., "Comments to January 1995, Proposed Centralized Consolidation/Recycling Center on the Hanford Site," dated April 18, 1995. This letter conveys Ecology's concurrence with the U.S. Department of Energy, Richland Operations Office (DOE-RL) January 1995 proposal.
- Letter, Michael Wilson, Ecology, to James E. Rasmussen, RL, "Additional Waste Streams Proposed for Management at the Consolidation Center," dated October 21, 1996. This letter confirmed Ecology's concurrence with the addition of mercury, sodium, and incandescent light bulbs for management at the CCRC.
- Letter, Michael A. Wilson, Ecology, to James E. Rasmussen, RL, "Re: 97-EAP-779," dated January 30, 1998. This letter confirmed Ecology's concurrence for the addition of mercury and mercury-containing equipment for management at the CCRC.
- Letter, Edward J. Kowalski, U.S. Environmental Protection Agency Region 10, to Shirley J. Olinger, ORP, "Notice of Violation," dated March 3, 2009. This Notice of Violation cited a failure to label and indicate the date of generation of universal waste lamps and batteries at the 616 building prior to shipment to the CCRC.

This Management Plan represents one aspect of the overall Hanford Pollution Prevention and Waste Minimization Program. Additional recyclable materials will be evaluated for inclusion to this plan based on evidence of the material's recyclability (a market for the material and a recycler with demonstrated ability to recycle the material). For management practices requiring a regulatory determination, revisions to this plan will be submitted to Ecology for concurrence. It should be noted that other materials may be managed by the CCRC provided that such activity is in accordance with applicable regulatory requirements.

At a site as large as Hanford, some adaptation and discretion is necessary to encourage maximum participation in recycling programs. As with earlier proposals, Ecology concurrence is required for the management strategy identified in this Plan. The strategy identified in this revision was developed and concurred to by Ecology, the U.S. Department of Energy, Office of River Protection (DOE-ORP), DOE-RL and representatives from each of the Hanford Site prime contractors, with verbal concurrence by EPA Region 10.

Significant changes from Revision 2 of the CCRC Plan include the following:

- Included in the revision was a change to the UW POG location. Rather than being at the CCRC, the UW POG location was changed to be at the facilities and/or work areas where UW is accumulated, prior to and/or in preparation for delivery to the CCRC.

- DOE will ensure that UW is appropriately labeled at each field generating facility per Washington Administrative Code (WAC) 173-303-573(22). EPA and Ecology agree that each field generating facility must label UW with the accumulation start date, and is allowed to accumulate universal waste up to a year in the field prior to transfer to the CCRC.
- UW will be labeled with a new accumulation start date upon receipt at the CCRC. EPA and Ecology agree that UW may be accumulated for up to an additional year prior to being shipped to an off-site destination facility. If additional time is needed beyond the one year accumulation period, the CCRC must be able to demonstrate to Ecology that the additional time is required to facilitate consolidation of sufficient material to make an off-site shipment feasible (WAC 173-303-573(22)(b)).
- Ecology and EPA agree that dangerous waste (DW) lamps may be crushed in satellite accumulation areas (SAAs), i.e., treatment by generator (TBG) may be performed at SAAs.
- Elemental mercury will be accumulated as commercial chemical product, and stored at the CCRC until a permanent national repository for mercury generated at Federal facilities is established per Public Law 110-4114, The Mercury Export Ban Act of 2008.
- Mercury-containing equipment will be managed as universal waste.

The regulatory interpretation is valid only as long as the materials are managed in accordance with the protocols established in this plan. This plan pertains only to recyclable materials collected at the CCRC prior to shipment to an off-site recycler.

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2.0 SCOPE

The following recyclable materials are included within the scope of this Management Plan:

2.1 UNIVERSAL WASTE

Universal Waste, as defined in WAC 173-303-040, includes:

- Universal Waste Lamps
 - Intact or unintentionally broken universal waste lamps including but not limited to neon, fluorescent, incandescent, mercury (high and low pressure), and sodium (high and low pressure) lamps.
- Universal Waste Batteries
 - Batteries, including but not limited to alkaline, carbon-zinc/zinc-chloride, nickel cadmium, mercury/mercury oxide, lithium, magnesium, zinc-silver, and Polaroid Polapulse batteries.
 - No leaking batteries shall be accepted.
- Universal Waste Mercury-Containing Equipment
 - Mercury-containing thermostats managed and shipped to CCRC separately from other mercury-containing equipment.
 - Field generating facility personnel shall consult with CCRC personnel to confirm whether equipment contains readily recoverable mercury prior to shipping equipment to the CCRC.

2.2 ELEMENTAL MERCURY

- Elemental mercury is packaged and shipped to the CCRC for storage pending the identification of a permanent repository for mercury generated by Federal facilities, as required by Public Law 110-4114, The Mercury Export Ban Act of 2008.
- Includes ampules and small closed containers of mercury removed from mercury-containing equipment.

2.3 CRUSHED FLUORESCENT LAMPS

- Crushed lamps designated as non-dangerous waste will be received at the CCRC.

- Crushed lamps designated as dangerous waste will be received at the CCRC provided that shipment from the CCRC occurs within three days of receipt.
- Filters from crushers are excluded from management at CCRC (managed by generators as a separate waste stream).

2.4 AEROSOL PRODUCTS

The following aerosol products are excluded:

- Pesticides
- Herbicides
- Expanding foam sealants
- Cold galvanizing compounds (containing white metal or zinc)
- Corrosives (pH <2 or >12.5)
- >10% Ether (methyl, ethyl, diisopropyl) products
- Aerosol cans without caps
- Jumbo aerosol cans (greater than 3-inches in diameter).

2.5 LEAD-ACID BATTERIES

The following battery types are excluded:

- Drained battery carcasses
- Leaking or cracked batteries containing liquid electrolytic solution
- Oil filled batteries
- Missile, aluminum, or absolyte batteries
- Field facility personnel shall consult with CCRC personnel to confirm whether glass-cased batteries will be accepted. Glass-cased batteries are accepted on a case-by-case basis.

2.6 ELECTRIC BALLASTS OR CAPACITORS

The following are excluded:

- PCB-containing ballasts or capacitors
- Ballasts or capacitors that are defined as dangerous waste
- Electrical ballasts or capacitors that contain batteries shall be managed separately as Universal Waste Batteries.

2.7 USED SHOP TOWELS

Used shop towels are accumulated at the generator location and picked-up by an off-site vendor for laundering. The CCRC manages the contract for the Hanford Site. The recycling vendor will collect the used shop towels from the generator locations on a periodic basis to ensure they are not accumulated for longer than 180 days, per Ecology regulations. Standards for management of used shop towels are found in Section 5.1.

2.8 USED OIL

Used oil is collected at the generator location and recycled at an off-site facility. The CCRC manages the contract for the Hanford Site. The CCRC will coordinate the pick-up of used oil by the recycling vendor on an as-needed basis. Standards for management of used oil are found in Section 5.2.

2.9 SPENT ANTIFREEZE

Spent antifreeze is collected at the generator location and recycled at an off-site facility. The CCRC manages the contract for the Hanford Site. The CCRC will coordinate the pick-up of spent antifreeze by the recycling vendor on an as-needed basis. Standards for management of spent antifreeze are found in Section 5.3.

2.10 ELECTRONIC EQUIPMENT

Electronic equipment is not managed by the CCRC. Contact company Environmental and/or Property Management representative(s) for company specific policies and procedures for disposition of electronic equipment. Standards for management of electronics are found in Section 5.4.

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3.0 STANDARDS FOR MANAGEMENT OF RECYCLABLE MATERIALS AT FACILITIES PRIOR TO CONSOLIDATION AT CCRC

Generating locations that accumulate recyclable materials included in the scope of this management plan must manage them in accordance with the following standards to qualify for coverage under this plan. The standards identify practices that will help ensure these materials are managed in a safe and environmentally protective manner.

3.1 STANDARDS FOR ALL ACCUMULATION AREAS

- Recyclable materials shall be accumulated in a manner and location that maintains container integrity.
- Recyclable materials shall be accumulated in a manner that prevents releases or spills.
- Recyclable materials shall be accumulated in a manner that avoids reaction of incompatible materials.
- Containers used to accumulate recyclable materials shall be closed unless material is being added or removed.
- Only non-radioactive recyclable materials shall be accumulated under this plan.
- As a best management practice, utilize good housekeeping practices in recycle and universal waste accumulation areas.

3.1.1 Standards for Recycle Accumulation Areas

- Personnel who set up, maintain, dismantle, or add material to accumulation areas shall receive a briefing provided by the responsible generating organization on the accumulation standards for generators that describes how each type of recyclable material under their purview shall be managed.
- Accumulation containers shall be labeled with "Recycle Accumulation Area for (insert the name of the material, e.g., Aerosol Products)." The label (or an example label format) shall be obtained from or approved by CCRC personnel.
- Flammables shall be stored in accordance with standards established by Hanford Site contractor procedures.
- In regards to electrical ballasts or capacitors, only electrical ballasts or capacitors that do not contain polychlorinated biphenyls (PCBs) and do not designate as a dangerous waste shall be accumulated under this plan. The facilities will maintain documentation based on process and/or analytical data that the electrical ballasts or capacitors do not designate as dangerous waste.

3.1.2 Standards for Crushing Dangerous Waste Lamps in Satellite Accumulation Areas

- Prior to crushing, lamps can be managed under the universal waste standards in Section 3.1.3. Once crushed, the 12-month universal waste clock no longer applies.
- Ecology and EPA agree that DW lamps may be crushed in SAAs, i.e., TBG may be performed at SAAs. Satellite accumulation of crushed lamps designating as DW shall be conducted in accordance with WAC 173-303-200(2). The TBG-generated waste will be managed to SAA requirements and will not include time limits, dangerous waste training plan or contingency plan.
- Training for staff operating the crushing equipment will be provided by the generating organization to ensure proper controls are maintained to prevent the escape of emissions from the crushing operations.
- Lamp crushing may also occur in a 90-day accumulation area or a TSD unit at the Hanford Site.
- Information on drums of crushed DW fluorescent lamps shall be entered into the database used for Annual Dangerous Waste reporting with all applicable fields completed.
- Within one month of the off-site shipment date, the generator will supply copies of the following information to the CCRC: Uniform Hazardous Waste Manifest, waste designation, radiological release form, and container closure instruction.
- CCRC will notify generators two weeks prior to the scheduled off-site shipment date.
- The generators will be responsible for arranging transportation of drums to the CCRC to arrive three days before the scheduled off-site shipment date.

3.1.3 Standards for Universal Waste Accumulation Areas

- Universal Wastes accumulated in the field shall be appropriately labeled with the Universal Waste label indicating the type of waste and the accumulation start date, including all of the requirements identified in WAC 173-303-573(22)(c).
- Universal Wastes shall be shipped to the CCRC within 12 months of initial accumulation date.
- Personnel who set up, maintain, dismantle, or add waste to Universal Waste accumulation areas shall receive training provided by the responsible generating organization on Universal Waste management standards as required by WAC 173-303-573(23).
- When accumulating Universal Waste, measures shall be taken to prevent and mitigate potential releases of Universal Waste.

- When accumulating batteries, the battery contacts shall be protected as described below to avoid being short-circuited. Masking tape is not to be used on battery contacts as it is unsuitable to prevent short-circuiting.
 - Battery contacts shall be taped with electrical tape (preferred) or duct tape (alternative).
 - Lithium battery contacts shall be taped with electrical tape (preferred), duct tape (alternative), or individually placed in a closed plastic bag.
 - All liquid-filled batteries shall have caps, plugs, or covers over the opening to prevent spills or releases.
 - Prior to shipment to the CCRC, batteries must be segregated and packaged by battery type (e.g., alkaline, lithium).
- When accumulating lamps, measures shall be taken to minimize breakage of intact lamps.
- Prior to shipment to the CCRC, lamps must be segregated and packaged by lamp type (e.g., intact fluorescent, intact incandescent, mercury vapor).
- Mercury ampules (or other small closed containers) may be removed from mercury-containing equipment (per WAC 173-303-573(20)(b)(ii)) and stored as elemental mercury.

3.1.4 Standards for Accumulating Elemental Mercury

- Elemental mercury will be stored in an area for commercial chemical products. Elemental mercury will not be managed as Universal Waste. (See additional information in Section 4.2.)
- Mercury-containing ampules (or other small closed containers) removed from mercury-containing equipment shall be managed as elemental mercury.

3.2 ACCEPTANCE CRITERIA FOR RECEIPT AT THE CCRC

- Records shall be retained at the field generating facility for a minimum of three years. A copy of the following completed forms shall accompany the shipment to the CCRC:
 - CCRC Form for the recyclable material being accumulated under this plan
 - Radiological Release Certification Form or equivalent
 - Scrap Metal for Recycling Form or equivalent (if applicable).
- Transportation documentation must accompany the shipment to the CCRC as required by Section 3.3. Applicable standards identified in Sections 3.1 and 3.2 must have been met.

3.3 TRANSPORTATION STANDARDS

- Recyclable materials that meet the definition of a U.S. Department of Transportation (DOT) Hazardous Material shall be shipped to the CCRC in compliance with applicable provisions of DOT's Hazardous Materials Regulations (49 CFR 171-180).
- For additional information on crushed fluorescent light tubes, see Section 4.4.

4.0 STANDARDS FOR MANAGEMENT OF RECYCLABLE MATERIAL AT CCRC

Upon receipt at CCRC, the incoming recyclable material is staged for evaluation to determine the disposition pathway for the material. Based on the disposition strategy identified, the material is managed in accordance with applicable regulatory requirements. The following information is provided as an overview of the process for each type of material received at the CCRC.

4.1 AEROSOL PRODUCTS

- Aerosol cans are stored as product until the determination is made regarding the potential for re-use.
- Usable aerosol products are stored according to compatibility group.
- Usable aerosol products that are not re-deployed to other Hanford Site users will be excessed, punctured, or otherwise dispositioned on an annual basis.
- Non-usable aerosol products are punctured and the contents are drained into SSA drums containing compatible materials. These waste liquids are managed according to the requirements of WAC-173-303 with final disposition at a permitted Treatment, Storage, and Disposal (TSD) Facility.
- Per Ecology Focus Sheet 07-04-005 and per Ecology and EPA agreement, puncturing and emptying aerosol cans that are to be recycled is part of the scrap metal recycling process, and is not considered a treatment by generator activity. Empty aerosol product cans will be recycled as scrap metal, according to requirements of WAC 173-303-120(2).

4.2 ELEMENTAL MERCURY

- Upon receipt at CCRC, elemental mercury will be stored in an area for commercial chemical product pending the identification of a permanent national repository for mercury accumulated at Federal facilities.
- Mercury-containing ampules (or other small closed containers) removed from mercury-containing equipment shall be managed as elemental mercury.
- Elemental mercury will be transferred to the national repository (when established) as required by Public Law 110-4114, the Mercury Export Ban Act of 2008.

4.3 UNIVERSAL WASTE LAMPS (OTHER THAN CRUSHED), BATTERIES (OTHER THAN LEAD-ACID), AND MERCURY-CONTAINING EQUIPMENT

- Lamps, batteries, and mercury-containing equipment are managed as UW upon receipt at the CCRC in accordance with the large quantity handler provisions contained in WAC 173-303-573. Mercury-containing equipment is managed as UW pending further DOE guidance under the Mercury Export Ban Act.
- The accumulation start date will be marked on the container and will be assigned based on the date the shipment of UW is received at the CCRC.
- Universal waste will be shipped from the CCRC within one year of the CCRC accumulation start date. Should a longer accumulation period be necessary to facilitate proper recovery, treatment, or disposal, the justification must be documented per WAC 173-303-573(22)(b).
- Universal wastes are shipped off-site to a destination facility in accordance with WAC 173-303-573(25).

4.4 CRUSHED FLUORESCENT LAMPS

- Waste designation documentation for each drum must be provided to the CCRC.
- Crushed fluorescent lamps will be staged at the CCRC prior to being sent off-site for recycling. Crushed fluorescent light tubes designated as DW will not be staged longer than three days from receipt at the CCRC, regardless of the generating location (i.e., SAA, 90-day accumulation area, TSD unit).
- During the 3-day staging period at the CCRC, EPA and Ecology agreed (at a meeting on 7/16/09) that DW lamps would not need to be managed at a 90-day DW accumulation area nor at a RCRA permitted TSD unit.
- In the event the three days is anticipated to be exceeded, the CCRC will notify Ecology.

4.5 LEAD-ACID BATTERIES

- Lead-acid batteries consolidated at the CCRC will be managed in accordance with WAC 173-303-520, "Special Requirements for Reclaiming Spent Lead-Acid Battery Waste."
- All lead-acid batteries will be shipped to a battery reclaiming facility when sufficient quantity has aggregated for a cost effective shipment.
- A one-time Land Disposal Restriction (LDR) notification is made to the recycling vendor for CCRC-managed lead acid batteries.

4.6 ELECTRICAL BALLASTS OR CAPACITORS

- Electrical ballasts or capacitors will be managed as non-DW at the CCRC.
- Electrical ballasts or capacitors are accumulated at the CCRC until it is cost-effective to ship them off-site to a recycler.
- The generator will maintain documentation based on process and/or analytical data that the electrical ballasts or capacitors do not designate as DW. (Ballasts or capacitors designated as DW will not be managed at the CCRC.)
- Electrical ballasts or capacitors that contain batteries will be managed in accordance with Section 4.3 of this plan.

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5.0 STANDARDS FOR MANAGEMENT OF OTHER RECYCLABLE MATERIALS

5.1 USED SHOP TOWELS

In July 1992, Ecology issued a Focus sheet with guidance to generators of shop towels. The management of used shop towels will be conducted in accordance with the best management practices identified within this Focus sheet. However, there is one exception to these best management practices regarding the marking of containers as "contaminated shop towels." Hanford workers often associate the term "contaminated" with radioactive contamination. To avoid confusion, the term "used shop towels" will be used at Hanford. The following standards apply for management of used shop towels:

- Recycle containers shall be marked with the words "Recycle Accumulation Area for Used Shop Towels."
- Containers for used shop towels contaminated with hazardous substances must be compatible with the substances present and must be closed except when adding or removing shop towels. Contact your company Waste Management organization with questions regarding compatibility. Shop towels contaminated with combustible hazardous substances must be accumulated in a covered metal receptacle.
- Accumulation/storage areas for used shop towels that are contaminated with combustible materials must be managed according to Hanford Site contractor procedures, in compliance with 40 CFR 262.34(c)(i) and 29 CFR 1910.106(e)(9)(iii). "No Smoking" signs shall be legible and placed at all accumulation areas.
- Used shop towels may NOT be accumulated for longer than 180 days before being recycled. The generating facility/location is responsible for demonstrating compliance with this accumulation requirement. (Contracts with the vendor providing laundering services will be maintained to collect used shop towels on a frequency meeting or exceeding this requirement.)
- The amount of hazardous substance on used shop towels should be minimized. All free liquids must be removed before placing used shop towels into the accumulation container. Liquids must not be poured into containers of used shop towels. Free liquids must be reused or evaluated for designation and management as DW.
- No radioactive or PCB contaminated shop towels shall be returned to the commercial laundry service provider.
- The CCRC will manage the Used Shop Towel program for the Hanford Site. This includes establishing contracts, maintaining a list of participating facilities, and assuring that the off-site recycling facility is meeting local sewer discharge limits and other applicable environmental regulations.

5.2 USED OIL

Used oil recycling services will be available through the CCRC for Hanford Site projects and contractors. The CCRC will manage a contract for recycling of "on-specification" or "off-specification" used oil (including water/fuel mixtures) destined for recycling, provided that the used oil is not required to be managed as a DW. It is Hanford's intent that used oil be managed in accordance with all applicable provisions of WAC 173-303-515. The following sections are provided to assist generators and are not intended to be a comprehensive list of regulatory requirements:

- Recycle containers and above ground tanks must be labeled or clearly marked with the words "Used Oil."
- Storage of used oil in underground storage tanks will be in accordance with WAC 173-360 as applicable.
- Storage of used oil in locations and quantities subject to 40 CFR Part 112 shall be in accordance with Spill Prevention, Control and Countermeasures Plan requirements.
- Containers and above ground tanks used to store used oil at generator facilities will be in good condition with no visible leaks.
- Response to a release of used oil to the environment will be in accordance with 40 CFR 279.22.
- Containers will be closed except when adding or removing used oil. Containers and tanks will not be opened, handled, managed, or stored in a manner that may cause the container or tank to leak or rupture.
- Collection of used oil by an authorized used oil transporter will be performed as needed. The CCRC will coordinate such shipments.
- A CCRC Form for Used Oil will be completed by the generator and submitted to the CCRC prior to scheduling off-site vendor.
- A completed Radiological Release Certification Form shall accompany each shipment.
- Used oil recycling services will be available through the CCRC for Hanford Site projects and contractors.
- The CCRC will maintain recycle records for three years.
- Used oil will be processed or re-refined by a contracted vendor.

5.3 SPENT ANTIFREEZE

Spent antifreeze recycling services will be available through the CCRC for Hanford Site projects and contractors. The CCRC will manage a contract for spent antifreeze recycling, provided that the spent antifreeze is not required to be managed as a DW. Spent antifreeze includes both ethylene glycol and propylene glycol based antifreeze solutions. It is Hanford's intent that spent antifreeze be managed in accordance with applicable provisions of WAC 173-303-522. The following bullets are provided to assist generators and are not intended to be a comprehensive list of regulatory requirements:

- Recycle containers shall be labeled "Spent Antifreeze."
- During accumulation, spent antifreeze will be stored in a manner to prevent releases to the environment. This includes, but is not limited to, storing wastes in compatible containers, on impermeable surfaces, or in secondary containment structures.
- Collection of spent antifreeze will be performed as needed. The CCRC will coordinate such shipments.
- A CCRC Form for spent antifreeze will be completed by the generator and submitted to the CCRC prior to scheduling off-site vendor.
- A completed Radiological Release Certification Form shall accompany each shipment.
- Spent antifreeze recycling services will be available through the CCRC for Hanford Site projects and contractors.
- Proof of reclamation/recycling will be maintained by the CCRC for at least five years from the date of reclamation/recycling.
- Spent antifreeze will be sent to an off-site reclamation/recycling facility.

5.4 ELECTRONICS

Electronics are to be managed in accordance with applicable provisions of WAC 173-303. The following sections are provided to assist users of electronics and are not intended to be a comprehensive list of regulatory requirements.

5.4.1 Assumptions

- Materials that can be reused (working or repairable) are **NOT** electronic waste (e-waste) and are **NOT** subject to the dangerous waste regulations.

- Materials that **ARE** deemed to be e-waste are divided into two categories:
 1. Non-working CRTs and equipment containing a CRT (e.g., monitors and TVs); and
 2. Non-working electronic equipment that does not have a CRT.
- Materials deemed to be e-waste are generally destined for recycling. If not destined for recycling, they are subject to all applicable regulations.

5.4.2 Standards for Initial Accumulation of Non-Working CRT's

- CRTs must be stored in a building with a roof, floor, and walls **OR**, if not stored in a building, be placed in a container (package or vehicle) that is constructed, filled, and closed to minimize releases to the environment of CRT glass (including fine solid materials).
- Any accumulation container used to store CRTs must be marked or labeled with "Leaded glass from televisions or computers" and "Do not mix with other glass materials" signage.

5.4.3 Standards for Initial Accumulation of Non-Working Electronics Other than CRTs

- E-waste should be placed in an accumulation container marked with "Recycle accumulation area for electronic devices" and the chasing arrows recycle logo.
- The accumulation container must be constructed, located, and managed such that the e-waste is protected and potential for spills is minimized.
- Incompatible materials should be stored in a manner that avoids reaction.
- If the e-waste is a DOT hazardous material, it should be transported in accordance with DOT rules and site procedures.
- E-waste can only be accumulated for 180 days before being dispositioned per the Interim Enforcement Policy for electronic waste.

NOTE: Spent printed circuit boards that have been removed from equipment are considered to be processed scrap metal and may be managed under the scrap metal exemption (WAC 173-303-071(3)(ff)). If circuit boards are shredded, they are subject to WAC 173-303-071(3)(gg).

APPENDIX A
ECOLOGY APPROVAL LETTER

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

MAR 3 - 2009

OFFICE OF
COMPLIANCE AND ENFORCEMENT

Reply to: OCE-127

CERTIFIED MAIL NUMBER 7008 1830 0004 3067 6241
RETURN RECEIPT REQUESTED

Shirley J. Olinger, Manager
Office of River Protection
United States Department of Energy
P. O. Box 450, MSIN H6-60
Richland, Washington 99352

Re: **NOTICE OF VIOLATION**
United States Department of Energy
EPA/Ecology ID Number WA7 89000 8967

Dear Ms. Olinger:

This Notice of Violation (NOV) is to inform the United States Department of Energy (DOE) of violations of the Resource Conservation and Recovery Act, as amended (RCRA), as implemented through the Washington State federally authorized hazardous waste program found in the Washington Administrative Code (WAC) 173-303. Based on inspections conducted on September 24 & 25, 2008, EPA has identified the following violations:

Violation Number 1 – Failure to Properly Label Universal Waste Lamps

For lamps that are managed as universal waste the regulations at WAC 173-303-573(21)(d) require that each individual lamp or a container in which the lamps are accumulated, must be labeled or clearly marked with any one of the following phrases: "Universal Waste Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)."

At the time of the inspection, EPA inspectors observed at the 616 building several boxes containing used lamps. According to facility personnel, these lamps were awaiting shipment to Hanford's central recycling center where they would be accumulated and sent offsite as universal waste lamps. The boxes were labeled with the words "held for recycling" and did not have any of the labels required under the universal waste rules.

DOE failed to provide labeling as required by WAC 173-303-573(21)(d).

RECEIVED

Violation Number 2 – Failure to Properly Date Universal Waste Lamps

MAR 09 2009

For lamps that are managed as universal waste the regulations at WAC 173-303-573(22)(c) require that a universal waste handler must be able to demonstrate the length of time that each universal waste has been accumulated from the day it becomes a waste.

DOE-ORP/ORPCC

At the time of the inspection, EPA inspectors observed at the 616 building several boxes containing used lamps. According to facility personnel, these lamps were awaiting shipment to Hanford's central recycling center where they would be accumulated and sent offsite as universal waste lamps. There were no dates on any of the boxes and there was no documentation provided that established the date the oldest lamp became a waste.

DOE failed to provide the date of generation documentation as required by WAC 173-303-573(22)(c).

Violation Number 3 – Failure to Properly Label Universal Waste Batteries

For batteries that are managed as universal waste, the regulations at WAC 173-303-573(21)(a) require that each individual battery or a container in which the batteries are accumulated, must be labeled or clearly marked with any one of the following phrases: "Universal Waste Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)."

At the time of the inspection, EPA inspectors observed at the 616 building several containers of used batteries. According to facility personnel, these batteries were awaiting shipment to Hanford's central recycling center where they would be accumulated and sent offsite as universal waste batteries. The containers were labeled with the words "held for recycling" and did not have any of the labels required under the universal waste rules.

Since used batteries are clearly waste and are destined to be managed as universal waste they are required to have the proper universal waste labeling at the time they are removed from service. DOE failed to provide labeling as required by WAC 173-303-573(21)(a).

Violation Number 4 – Failure to Properly Date Universal Waste Batteries

For batteries that are managed as universal waste the regulations at WAC 173-303-573(22)(c) require that a universal waste handler must be able to demonstrate the length of time that each universal waste has been accumulated from the day it becomes a waste.

At the time of the inspection, EPA inspectors observed at the 616 building several containers of used batteries. According to facility personnel, these batteries were awaiting shipment to Hanford's central recycling center where they would be accumulated and sent offsite as universal waste batteries. There were no dates on any of the containers and there was no documentation provided that established the date the oldest battery became a waste.

DOE failed to provide the required date of generation documentation as required by WAC 173-303-573(22)(c).

Required Action

The above violations may subject DOE to enforcement action under Section 3008 of RCRA, 42 U.S.C. 6928, including assessment of civil penalties. Within fifteen (15) days of receipt of this NOV, EPA requests that DOE submit a written response that identifies all actions that DOE has taken or will take to correct the violation and the time frame for completing such action.

Please send all material submitted in response to this NOV to:

Jack Boller (OCE-127)
U. S. Environmental Protection Agency
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

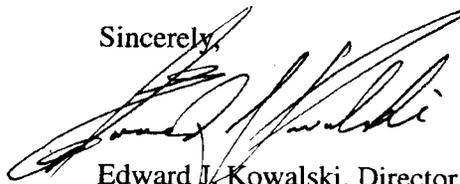
EPA Reservation of Rights

Notwithstanding this NOV or DOE's response, EPA reserves the right to take any action pursuant to RCRA or any other applicable legal authority, including without limitation, the right to seek injunctive relief, implementation or response actions or corrective measures, cost recovery, monetary penalties, and punitive damages. DOE's response to this NOV does not constitute compliance with RCRA.

Nothing in this NOV or DOE's response shall affect DOE's duties, obligations, or responsibilities with respect to the facility under local, state, or federal law or regulation.

Thank you for your prompt attention to this important matter. If you have any questions regarding this matter, please contact Jack Boller of my staff at (206) 553-2953.

Sincerely,



Edward J. Kowalski, Director
Office of Compliance and Enforcement

cc: Jane Hedges, Ecology



**U.S. Department of Energy
Hanford Site**

MAY 08 2009

09-ESQ-156

Mr. Jack Boller (OCE-127)
U.S. Environmental Protection Agency
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

Dear Mr. Boller:

NOTICE OF VIOLATION (NOV) REGARDING UNIVERSAL WASTE PRACTICES

- References:
1. EPA letter from E. J. Kowalski to S. J. Olinger, ORP, "**Notice of Violation** United States Department of Energy EPA/Ecology ID Number WA7890008967," dated March 3, 2009.
 2. ORP letter from S. J. Olinger to J. Boller, EPA, "Request for Additional Clarification of the Notice of Violation (NOV) U.S. Environmental Protection Agency (EPA)/Washington State Department of Ecology (Ecology) ID Number WA7890008967, Dated March 3, 2009 (OCE-127)," 09-ESQ-094, dated March 24, 2009.

This letter provides proposed corrective actions to Reference 1. The approach to resolve the NOV was developed in a meeting held on April 15, 2009, with the support of both the U.S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology). We appreciate your assistance in clarifying your expectations and developing a path forward for the resolution.

To resolve the NOV, a draft revision to the Management Plan for Recycle Materials Administered by Hanford's Centralized Consolidation/Recycling Center (CCRC) (HNF-EP-0863) will be prepared for EPA concurrence by October 12, 2009. The draft revision will address the concerns identified in the NOV regarding labeling and dating of universal waste. In addition, the draft will be accompanied by a proposal for implementing the changes identified in the revision, once agreed to by EPA and Ecology. A working group has been formed comprised of personnel from the U.S. Department of Energy (DOE), Office of River Protection, DOE Richland Operations Office, EPA, Ecology, and Hanford contractors to develop the draft revision to the management plan.

As you are aware, the recycling management plan is implemented on a sitewide basis. We understand that EPA is interested in continuing recycling at Hanford. As discussed at the meeting on April 15, 2009, Hanford contractors are continuing to comply with the existing management plan until a revision is in effect and implemented. DOE therefore requests that EPA exercise its enforcement discretion regarding recycling practices until the corrective actions are agreed to and implemented at Hanford.

Mr. Jack Boller
09-ESQ-156

-2-

MAY 08 2009

At the meeting on April 15, 2009, inventory sheets were provided to you from the containers identified in the September 2008 EPA inspection at the Hanford 616 Facility. The inventory sheets identify the dates the materials were delivered to the 616 Facility and added to the containers. In addition, the inventory sheets identify the originating facility and weights for each item added to the container that was being managed for recycle through the Hanford CCRC.

If you have any questions, please contact Lori A. Huffman, Director, ORP's Environmental Compliance Division, (509) 376-0104, or Stephen R. Weil, Director, RL's Environmental Management Division, (509) 372-0879.


Shirley J. Olinger, Manager
Office of River Protection


David A. Brockman, Manager
Richland Operations Office

ESQ:LAH

cc: C. D. McCurley, BNI
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R. T. Hynes, WCH
R. J. Landon, WCH
R. C. Robinson, WCH
P. T. Day, WRPS
J. A. Nielsen, WRPS
J. A. Voogd, WRPS

Mr. Jack Boller
09-ESQ-346

-3-

cc w/attach:

D. M. Busche, BNI
K. L. Chapin, BNI
B. G. Erlandson, BNI
C. H. Smith, BNI
A. E. Cawrse, CHPRC
A. G. Miskho, CHPRC
J. A. Hedges, Ecology
D. G. Singleton, Ecology
S. A. Szendre, Ecology
D. A. Faulk, EPA (Richland)
L. M. Dittmer, Northwind
C. E. Marple, MSA
J. K. Perry, MSA
K. A. Peterson, MSA
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S. R. Weil, RL
W. F. Johnson, WCH
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Environmental Portal, LMSI
WRPS Correspondence