

From: Amy Snyder
To: A. Nardi
Date: 11/17/05 2:40PM
Subject: Re: Response to NRC questions on return of waste materials

Joe,

We have evaluated the current Materials License No. SNM-00033 and your responses to our questions regarding the return of Hematite waste materials to the Hematite Site. After OGC reviewed the above information, they stated that WEC has addressed all of OGC's concerns. OGC has determined that Westinghouse's receipt back of materials that originated at the Hematite site after volume reduction of those materials or after the materials are removed from recyclable metals in order to be disposed at a licensed disposal site is an authorized activity under the current license.

I asked Region III to review your responses to our questions from a technical standpoint and had one concern regarding the possibility of concentrating HEU material. I spoke with Gordon Vytlačil and Hank Sepp yesterday, November 16, 2005 about this concern. They told me that ... "the recycling process does not concentrate HEU material because no HEU material is present in that waste." Furthermore, they said that the recycled waste will be treated the same as any intermodal being received at the site. Also, they said that the same waste management and radiological survey procedures will be applied to this waste as those that were applied to the waste when it originally left the site. Gordon stated that if Region III has any more questions, WEC will be more than willing to address them and suggested that during the next NRC inspection (November 28-30, 2005), that if Region III wanted to examine WEC's waste management plan and associated radiological survey procedures, they would have them ready upon their arrival.

Based on the above, I will suggest to Region III that they consider, through the inspection process, verifying that this waste is covered under your waste management plan and radiological control procedures.

If you have any questions, please contact me directly.

Sincerely,

>>> "Nardi, A. Joseph" <nardiai@westinghouse.com> 11/10/05 7:07 PM >>>

Amy,

In response to your email dated October 21, 2005 I am providing the following responses to the questions you asked. As noted in my original email dated September 22, 2005, Westinghouse has concluded that the receipt back of materials that originated at the Hematite site after volume reduction of those materials or after the materials are removed from recyclable metals in order to be disposed at a licensed disposal site is an authorized activity appropriate to the continued decommissioning of the Hematite site. Westinghouse plans to continue with this course of action. As explained below, the material to be received is not additional material, it is material which is or was currently in Westinghouse's possession and for which it is authorized under SNM-33. Our understanding also is consistent with the authority given to nuclear power plants pursuant to 10 CFR 50.54(ee).

Background: The disposal facility, Envirocare, will not accept our volume reduced material if that material is shipped from Duratek after volume reduction or compaction. Therefore, Westinghouse must ship the volume reduced or compacted material from its licensed sites.

In addition, pursuant to an export license, Westinghouse is sending recyclable metals to the MM&A facility in Canada to be recycled. However,

although the equipment was cleaned when removed, residual amounts of contamination remained on the equipment. This equipment was packaged and shipped to MM&A to be recycled. Once received at MM&A, these items are placed in an acid bath to remove contaminants. The resulting liquids are precipitated and run through a filter press to remove the liquids. Also as a part of this, some of the items are shot-peened to remove the lock-down agent used to fix the contamination. Therefore, the residual waste from the decontamination of the metal is in the form of filter cake and/or shot-peening residue. The most cost effective option for handling of the resulting material is to return the material to the Hematite site for further evaluation to determine whether the uranium content is high enough to warrant the processing of the materials to recover usable uranium or whether the material should be disposed.

1. Does WEC have any other options regarding sending the proposed waste directly to another waste processing facility instead of sending it back to the site and then shipping it out to a waste processor? If not, why not?

Response: Westinghouse is seeking to reduce the volume of radioactive materials disposed. In order to do so, materials will either be volume reduced or cleaned. However, as noted above, the disposal facility will not accept our volume reduced or compacted material from the intermediate processor, it must be shipped from our site.

With respect to disposal at Envirocare, MM&A cannot ship to Envirocare.

2. Approximately, how long does WEC plan on having the proposed waste remain on the site before it is shipped off to another waste processing facility?

Response: Once received back at the Westinghouse site, it is Westinghouse's intent to arrange for disposal at Envirocare as soon as reasonable. Because of contract issues with Envirocare, Westinghouse cannot provide a specific response as to how long the material will remain at the Westinghouse site. However it is not the intent of Westinghouse to deliberately hold the waste for an extended period.

3. Describe how WEC staged or temporarily located the waste on site before it was initially shipped out. How does WEC propose to stage or temporarily locate the waste onsite if it is sent back to the site? Describe the controls that will be put in place or what procedures will be followed to ensure adequate radiation protection of the public and the environment?

Response: The waste materials include dry active waste (DAW) such as contaminated plastics, clothing, etc. In addition, materials resulting from site activities include equipment formerly used to process SNM and in the future will include metal from building demolition. Prior to sending the waste and recyclable metals to the processing or recycling facility, they are or will be stored in accordance with SNM-33 license in radioactive material storage areas. WEC packages the materials in accordance with our SNM-33 license, Site policies, Procedures and Transportation regulations. All of our containers and packaging meet storage requirements, markings and labeling licensing criteria of SNM-33 and the WEC Hematite policies and procedures.

The material received back from Duratek and MM&A will also be packaged in

containers that comply with our SNM-33 license, NRC requirements and DOT requirements. They will be stored in radioactive material storage areas in accordance with existing procedures. WEC has in place approved policies, procedures and licensing commitments to mitigate both public and environmental impacts. WEC does not expect the need to develop any new procedures to handle the waste materials when returned from Duratek or MM&A.

4. How will this proposed action of sending waste back to the site impact current and proposed decommissioning activities?

Response: It will not impact current and proposed decommissioning activities.

5. What form will the waste be in if shipped back to the site? Will it have changed in anyway since it was shipped offsite? What volume of waste will be involved?

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Response: DAW that is returned from a processor, such as Duratek , would be returned in the form of either incinerator ash or compacted material. In the latter case, the waste would be in the same form as shipped but the volume would be reduced. The volume reduced material will be returned from Duratek in DOT approved containers, such as Sealand or Intermodal containers.

With respect to the material resulting from the decontamination of recyclable metal, the material will be in a different form. As noted above, whereas the contamination once was on equipment or building structures, it will now be in the physical form of a sludge or shot-peening residue contained in a drum. However, the recyclable materials were exported from the Hematite site as Uranium compounds, which will not change, and they will be imported as Uranium compounds. The resulting sludge or shoot peening residue will be returned to the Hematite site in drums, which will be placed in DOT approved containers, Sealand, Intermodal, etc. and the shipment will meet transportation regulations for US and Canada.

With respect to the recyclable metals, WEC estimates of the amount of material to be returned to be 3406 cubic feet, based on the amount produced to date. It is estimated that MM&A generates approximately 3 - 4 drums of filter cake acid residue per shipping container at a weight of 400-500 lbs per drum. Shot peening activities generate an additional 2 - 3 drums of material at a weight of approximately 1100 pounds per drum for the same volume of recyclable metal.

6. What is WEC's plans for receiving the waste? Specifically, will be it shipped back in one shipment or multiple shipments? What period of time does WEC anticipate it will take to ship the waste back to the site? ... to ship the waste out again to another waste processor?

Response: WEC plans to receive the material in fissile excepted packaging and in multiple shipments. The timing for return of the waste material to the Hematite site will depend on considerations at the processor site such as accumulation of sufficient volume to constitute a reasonable shipment load. Once returned to the Hematite site, Westinghouse does not anticipate a significant delay in shipment of the material to another waste processor or to the disposal site.

7. If WEC decides to delay its decommissioning activities, how will WEC proceed with addressing this waste if it is shipped back to the site?

Response: A delay to the specific steps in the decommissioning activities is not expected to impact the return to and forwarding of the waste from the Hematite site. DAW will be sent to Duratek for processing as it generated. Westinghouse plans to ship volume reduced DAW to disposal within a reasonable time after receipt back at the Hematite site, it does not plan to delay disposal if decommissioning activities are not being conducted. The same is true with respect to the recyclable metals.

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Subject: Re: Response to NRC questions on return of waste materials
Creation Date: 11/17/05 2:40PM
From: Amy Snyder

Created By: AMS3@nrc.gov

Recipients	Action	Date & Time
nrc.gov ch_po.CH_DO GAB1 CC (Eugenio Bonano) GMM CC (George McCann) JLC CC (Jamnes Cameron) PJL2 CC (Peter J Lee)	Delivered	11/17/05 2:41 PM
nrc.gov TWGWPO02.HQGWDO01 MMT CC (Meghan Thorpe-Kavanaugh)	Delivered	11/17/05 2:41 PM
nrc.gov owf5_po.OWFN_DO BGS CC (Brooke Smith)	Delivered	11/17/05 2:41 PM
nrc.gov twf4_po.TWFN_DO AMS3 CC (Amy Snyder) BAW1 CC (Bruce Watson) DCM CC (Dennis Morey) KAG1 CC (Kimberly Gruss)	Delivered Opened	11/17/05 2:41 PM 11/17/05 2:41 PM
westinghouse.com nardiaj (A. Nardi) vytlacgm CC (Gordon M. Vytlacil)		
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