



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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May 7, 2012

12-NWP-074

Matthew McCormick, Manager
Richland Operations Office
United States Department of Energy
P.O. Box 550 MSIN: A7-50
Richland, Washington 99352

Re: Department of Ecology's (Ecology) comments and approval to proceed on the CHPRC Engineering Structural Assessment Proposal for Box 231-Z-DR-11

Dear Mr. McCormick:

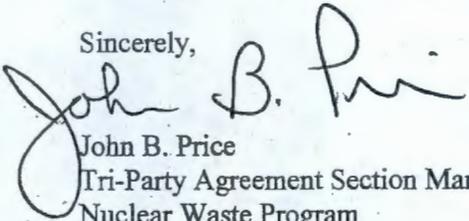
Ecology's comments on the CHPRC Engineering Structural Assessment Proposal for Box 231-Z-DR-11 are enclosed. Ecology approves proceeding with the engineering structural assessment upon confirmation from you that CHPRC will incorporate Ecology comments into the Proposal. Please provide a final copy of the revised plan for Ecology's records along with a draft schedule for implementation.

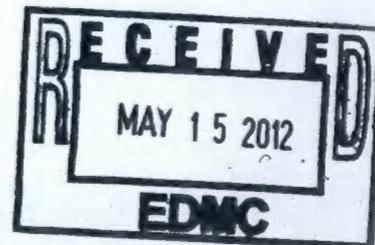
A primary concern is that the assessment is not going to provide, with certainty, the source of contamination around the box. For instance, whether the box leaked or if exterior contamination on the box caused a release. This shortfall limits the usefulness of the assessment. Data from the exterior of the box would provide more options for the management of the box, for example, allowing it to be opened and repackaged at an off-site treatment facility. A sampling and analysis plan (SAP) must be developed to provide data on the exterior of the box. The objective of sampling would be to supplement the information from the engineering assessment.

Ecology believes this is critical information. We are unable to approve a proposal to move the box off-site without this type of data. It is also critical information for the United States Department of Energy and CHPRC to support the option of moving the box into storage on-site due to the potential safety concerns posed by a leaking box. We request that you submit a draft SAP for the exterior of the box as soon as possible for Ecology review.

If you have any questions please contact me at 509-372-7921.

Sincerely,


John B. Price
Tri-Party Agreement Section Manager
Nuclear Waste Program



Enclosure
cc w/enc:

Dennis Faulk, EPA
Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Russell Jim, YN
Susan Leckband, HAB

Ken Niles, ODOE
Administrative Record: CWC
Environmental Portal
USDOE-RL Correspondence Control

M E M O R A N D U M

May 3, 2011

TO: John Price, Section Manager
Nuclear Waste Program

FROM: Kerry Graber, Hazardous Waste Inspector **KAG**
Hazardous Waste and Toxics Reduction Program

SUBJECT: CHPRC Engineering Structural Assessment Proposal for Box 231-Z-DR-11
Technical Review and Comments

The purpose of this memo is to provide comments on the above-referenced proposal that was submitted in compliance with your immediate action letter dated March 22, 2012. The USDOE was required to submit an engineering assessment proposal to Ecology for review and approval in order to be able to plan further action for the box.

Implementation of the assessment as proposed will not definitively resolve the difference of opinion between Ecology and USDOE over whether the box has leaked to the environment. This assessment is focused on the structural integrity of the box for the purpose of lifting and moving it to another location. As a consequence the assessment as implemented will not adequately resolve enough of Ecology's concerns to approve the transportation of the box to an off-site TSD.

The inspection of the box should be as close as safely possible to be able to observe stress cracks and assess the risk from physical vibrations, jostling, or other movement that may not be entirely mitigated by the lifting platform. This type of evaluation must be part of the assessment.

With that understanding, the following detailed comments are offered:

1. The assessment plan provides a number of assumptions, the first is that the waste in the box is evenly distributed throughout the container. There is no supporting documentation offered to provide confidence about this assumption, unless there are records from 2009 (when the box was moved) that would be helpful. I suggest CHPRC and USDOE check records from the movement of the box when it was taken from the burial grounds to CWC.
2. Item 3 of the plan, the paragraph is not specific but it talks about shipment. Movement of the container must include containment in case further leaks happen during transportation to the new storage location. This is mentioned in the text of the cover letter to the plan, but not specific in the plan itself. How to provide adequate containment during transportation to the new storage site should be a part of the engineering report recommendations.
3. In the applicable codes section, there are a number of additional standards that should be consulted and/or referenced by the engineer when performing the assessment. These include the following:

- DOT – 49 CFR Part 173.24 and 173.410 (STC) and 173.411(a) and (b)(1)[IP-1]
- American Society of testing Materials (ASTM) A569
- American Welding Society (AWS) D1.1 "AWS Structural Welding Code"
- AWS D1.3, "AWS Sheet Metal Welding Code"
- American Society of Mechanical Engineers (ASME) Section IX, "Welding and Brazing Qualifications"
- American Society for Nondestructive Testing, Recommended Practice SNT-TC-1A, Dec. 1988
- AWS, Specification for Qualification and Certification of Welding Inspectors, 1988 Edition.
- Title 49: Transportation; Part 173; Specifically Subsection 173.411 Industrial packagings and subsection 173.410 General design requirements. Under 173.411(b)(4)(ii), the standards prescribed in Chapter 6.7 of the United Nations Recommendations on the Transport of Dangerous Goods,..."Requirements for the Design, Construction, Inspection and Testing of Portable Tanks and Multiple-Element Gas Containers (MEGCs)."

If USDOE and CHPRC address these comments and agree to incorporate them into the assessment Ecology should move forward with approving the assessment plan.

Please let me know if you have any questions.

Kag

cc: Joannette Biebesheimer