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September 9, 2005
E&L -075-2005

Document Control Desk
Director, Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
US Nuclear Regulatory Commission
Washington, DC 20555-001

Ref: (1) Letter E&L-044-2005 from PL Paquin, Duratek, to Director, SFPO, US NRC, Dated June 9, 2005
(2) Letter E&L-055-2005 from PL Paquin, Duratek, to Director, SFPO, US NRC, Dated June 30, 2005

Dear Sirs:

SUBJ: APPLICATION FOR "-96" DESIGNATION FOR UX-30 PACKAGE CERTIFICATE NO. 9196, 2ND SUPPLEMENTAL SUBMITTAL

This is the second supplemental submittal for an application for the "-96" designation for the UX-30 overpack. The previous two submittals are References 1 and 2.

The SARs in the "-96" application dated June 9th mistakenly included references to "Transportation Index" and "TI" on pages 2.10.5-2 and 2.10.5-3. These references have been changed to the correct terminology for the current version of 10CFR71, "Criticality Safety Index" and "CSI", and the replacement pages are being submitted. The following table is a directory of the changes that we request you make to the SARs enclosed with our June 9th application:

Remove These Pages from June 9th Submittal	Insert These pages from This Submittal
Appendix 4 Proprietary Version of SAR	
2.10.5-2 and 2.10.5-3	2.10.5 –2 and 2.10.5-3
Appendix 5 Non-Proprietary Version of SAR	
2.10.5-2 and 2.10.5-3	2.10.5 –2 and 2.10.5-3

The new pages referenced in the above table that are to be inserted in the SARs are included with this supplemental submittal as "Attachment 4" and "Attachment 5" to correspond to the same Attachment numbers used in our June 9th submittal.

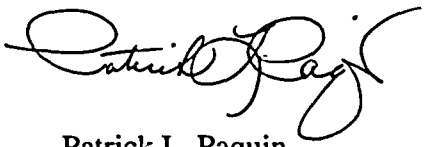
The information included in Attachment 4 of this supplemental submittal is intended to be placed in the Attachment 4 of our June 9th submittal, which is the proprietary version of the UX-30

NMSS01

SAR. The proprietary version of the SAR contains information proprietary to Duratek as attested in the affidavit in Attachment 3 of our June 9th submittal. Consequently, the information in the Attachment 4 of this submittal is also proprietary to Duratek

If there are any questions on this application, please contact Charles Witt at (803)758-1890.

Sincerely,



Patrick L. Paquin
General Manger, Licensing and Engineering

Attachments (3 copies each):

4. Corrected Pages for Proprietary Version, "Safety Analysis Report for Model UX-30 Package" Rev. 0, May 2005
5. Corrected Pages for Non-Proprietary Version, "Safety Analysis Report for Model UX-30 Package" Rev. 0, May 2005

Attachment 5

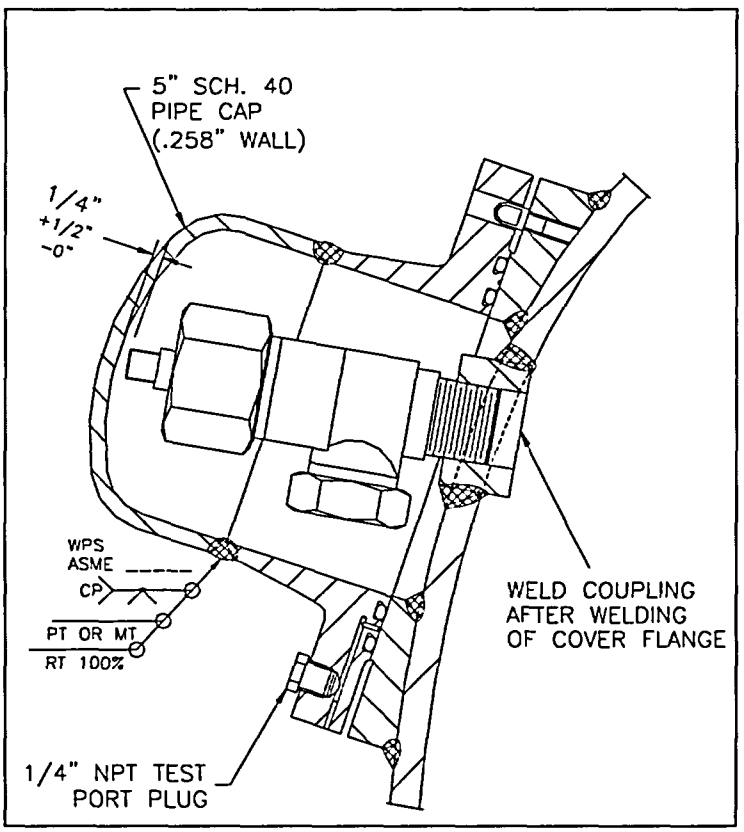
Glossary of Acronyms and Terms

CBC	The Columbiana Boiler Company
CBC Watertight™	A trademark for metal containers for the shipment and storage of chemical materials, including UF_6
CBC Watertight™ Cylinder	A 30B cylinder fitted with a VPC and having 100% verified welds (equivalent to the standard 30C cylinder)
CSI	Criticality Safety Index
ESP	Eco-Pak Specialty Packaging, a wholly-owned Division of CBC
ESP 30X	Type B Package with a filled UF_6 cylinder (USA/9284/BF-85)
HAC	Hypothetical Accident Conditions as defined by 10CFR71
NOC	Normal Conditions of Transport as defined by 10CFR71
NRC	The U.S. Nuclear Regulatory Commission
Standard 30B cylinder	A standard 2-1/2 ton UF_6 cylinder, as defined in USEC-651, Rev. 8
UF_6	Uranium Hexafluoride
UX-30	Type A Package with a filled UF_6 cylinder (USA/9196/AF-85)
VPC	Valve Protection Cover, designed to provide a water-tight enclosure around the cylinder valve, effectively excluding water from the cylinder valve for the immersion depth required by 10CFR71 for fissile packages.

Executive Summary

CBC's 30C Cylinder features a Valve Protective Cover (VPC) to augment the 30B UF_6 cylinder shipped in UX-30s. The objective of the VPC is to provide enhanced assurance that the UF_6 cylinder shipped in the UX-30 remains free of water inleakage during transport, thus allowing the assignment of a reduced CSI for criticality consistent with recent evaluations. Specifications for the 30C are in Addendum 2-2004 for ANSI N14.1.

Extensive qualification testing has been completed for the Standard 30B cylinder in the UX-30 without the VPC in place. The results of these tests demonstrate that the UX-30 maintains the cylinder's containment boundary in a leak-free condition during and following NOC and HAC. There was no deformation reported for the Standard 30B cylinder in the UX-30 at the valve or chime locations. Fire testing of a Standard 30B cylinder in a UX-30 indicates that the average maximum temperature of the Standard 30B cylinder does not exceed 200°F at any time for the regulatory specified fire conditions.



Valve Protective Cover

The 30C Cylinder is nearly identical to the Standard 30B cylinder. The tare weight of the 30C Cylinder is well within the allowable for the Standard 30B cylinder; both the Standard 30B cylinder and the 30C Cylinder are within the gross weight limitation of the UX-30 (USA/9196/AF-85). The VPC fits within the envelope of the cylinder chime; thus, it does not encroach upon the nominal clearance between the cylinder and the UX-30 inner shell. The dimensional envelope of the 30C Cylinder is the same as that of a Standard 30B cylinder. Additionally, the O-rings utilized in the VPC are serviceable to 400°F; thus, the O-ring seal will not degrade at the temperatures reported for a HAC fire. Thus, the free drop and fire test results for the Standard 30B cylinder in a UX-30 are also applicable to the 30C Cylinder in the UX-30.

However, in order to verify the performance of the 30C Cylinder under the NOC and HAC drop events proscribed by 10CFR71, a series of drop tests were completed using a full-scale 30C Cylinder prototype in a UX-30. The results demonstrated that the VPC is capable of maintaining a water-tight seal around the cylinder valve during NOC and HAC. The cylinder valve did not contact any other component of the packaging during or following the test sequence, and the VPC O-rings remained leak-free prior to and following the test sequence. Additionally, the