U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

JUN 2 4 2003

DOT-E 11347
(TENTH REVISION)

EXPIRATION DATE: May 31, 2005

1. GRANTEE: Columbiana Hi Tech Front End, LLC
Columbiana, Ohio
(Former grantee: Eco-Pak Specialty Packaging (Eco-Pak), a Division of Columbiana Boiler Company)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the manufacture, mark, sale and use of DOT Specification 21PF-1A and 21PF-1B overpacks that do not conform to § 178.358 for the transportation in commerce of uranium hexafluoride, fissile. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 178.358 in that an alternative design feature for certain DOT Specification 21PF-1B is authorized as specified herein, and the design weight of the specification is exceeded for DOT Specification 21PF-1A and 1B overpacks, as specified herein.

5. BASIS: This exemption is based on the application of Columbiana Hi Tech Front End, LLC, dated June 10, 2003, submitted in accordance with the provisions in § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi- fication Number**	**Packing Group**
Uranium hexafluoride, fissile *(containing more than 1% U-234)*	7	UN2977	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING -

(1) Prescribed packagings are DOT Specification 21PF-1A and 21PF-1B overpacks conforming to § 178.358. DOT Specification 21PF-1B overpacks manufactured by Nuclear Containers, Inc. (NCI) with high chloride foam prior to November 30, 1991 are not authorized for transport.

(2) DOT Specification 21PF-1B overpacks manufactured by Eco-Pak and NCI after November 30, 1991 are authorized for transportation with the following variations from § 178.358:

(i) The phenolic resin used to make the phenolic foam must be the Schenectady Chemical Company HRJ-11825 resin. The other ingredients used to make the phenolic foam must be those described in NCI's October 27, 1994 letter. No substitutions are authorized unless approved in writing by the Associate Administrator for Hazardous Materials Safety (AAHMS).

(ii) 0.75" stainless steel shackles with a weight limitation of 4,475 pounds, with a safety factor of five.

(iii) Continuous welding of bottom forklift angles rather than intermittent welds.

(iv) Continuous welding on reinforcement angles rather than intermittent welds.

(v) Attachment of nameplates via use of pop rivets. The nameplates must be sealed with RTV caulking.

(vi) Either red or white oak for the wooden inner structure is authorized provided the moisture content of the oak is 15% or less.

(vii) The weight of the foam in each half is not to be less than 100 pounds nor more than 150 pounds.

(viii) The use of a 0.625" thick gasket rather than 0.5" thick gasket.

(ix) Lug material for the closure bolts may be 2.25" x 2.25" which must be cut from 2.5" x 2.5" material rather than 2.0" x 2.0" material.

(x) The requirement on drawing E-S-31536-J, Rev. P to stencil the tare weight on each half of the overpack is waived since the tare weight is marked on the nameplates.

(xi) Stenciling the serial number on the end(s) of the overpack is permitted.

(xii) Painting of the foam side of both the inner and outer shell with an epoxy primer or equivalent coating which eliminates foam contact with the stainless steel shell. Painting of the outside surfaces of the overpack is authorized provided the markings on the overpacks are clearly legible on a contrasting background.

(xiii) Corner wood rail joints - full lap of the side rails onto the end blocks with vertical dowel rods.

(xiv) Rail caps may be constructed by the use of cap board laminated to a solid side rail base. Also, support blocks may be laminated.

(xv) The requirement in the specification for the support block chamfer to be 1.0" x 1.0" x 45° is waived.

(xvi) The requirement in the specification for the foam retention wood ring on the end block is waived.

(xvii) The end corner reinforcement may be a 3.0" x 0.25" flat bar on the side and a 2.0" x 0.25" flat bar on the end.

(xviii) The outside shell may be fabricated using either one or two sheets of stainless steel.

(xix) Inside reinforcement angles with dimensions of 2" x 2" x 0.25" may be used instead of 2.0" x 2.0" x 0.188" reinforcement angles.

(xx) The requirement in the specification to place wet rags around welding points over wood or foam is waived.

(xxi) Owens Corning fiberglass roving component No. 405-14C 4 mm may be substituted for Owens Corning fiberglass component No. 405 1/4".

b. OPERATIONAL CONTROLS -

(1) Cylinder contained in overpack must be fitted with USEC valve protection device model no. USEC-VPD-1996. Valve protection device must be manufactured, operated and maintained in accordance with the latest procedures detailed United States Enrichment Corporation Report No. USEC-651.

(2) In addition to the requirements of the HMR, each overpack offered for transportation must be handled and operated in accordance with the procedures and packaging criteria identified in latest edition of United States Enrichment Corporation Report No. USEC-651, Revision 8 and American National Standards Institute (ANSI) Standard N14.1-1995.

(3) When using a valve protection device, the authorized maximum gross weight of the overpacks, cylinders, and valve protection, when prepared for transport under the provisions of 49 CFR Part 173, may exceed the value of 3818 kilograms (8400 pounds) but may not exceed 4000 kilograms (8800 pounds).

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption must be marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

f. All overpacks manufactured or transported under this exemption must be plainly and durably marked "DOT-E 11347" in letters and numerals at least 2" high.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo only aircraft.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel, aircraft, or motor vehicle used to transport packages covered by this exemption. The shipper must furnish a current copy of this exemption to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.

- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS:

a. The carrier is required to report any incident involving loss of packaging contents or packaging failure to the AAHMS as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

b. The shipper is required to report to the AAHMS as soon as practicable, but no longer than three days, of an overpack that has shown signs of corrosion, pitting, cracking, or pinholes. The report must include the shippers name, address, telephone number (voice and/or telefax), the name of responsible individual, the overpack serial number designated for the owner, the overpack date of manufacture, and the extent of the corrosion, pitting, etc.

Issued in Washington, D.C.

Ann Mazzullo

for Robert A. McGuire
Associate Administrator
for Hazardous Materials Safety

JUN 24 2003
(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/exemptions Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: sln