1. **GRANTEE:** Quality Containment Company
   Owensboro, KY

2. **PURPOSE AND LIMITATIONS:**
   
   a. This exemption authorizes the manufacture, marking and
   sale of a non-DOT specification full opening head, steel
   salvage cylinder to be used as an overpack for the
   transportation in commerce of damaged or leaking sulfur
   dioxide or chlorine cylinders. This exemption provides no
   relief from any Hazardous Materials Regulation 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 § 173.301(f) in
   that the salvage cylinder does not have a pressure relief
   device and 173.304a(a)(2) and 180.205(c) in that a non-DOT
   specification cylinder is not authorized for sulfur dioxide
   or chlorine, excepted as specified herein.

5. **BASIS:** This exemption is based on the application of
   Quality Containment Company, dated November 12 and 13, 2002,
   submitted in accordance with § 107.105 and public proceeding
   thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Hazardous materials description -- proper shipping name</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>2.3</td>
<td>UN1017</td>
<td>Hazard Zone B</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>2.3</td>
<td>UN1079</td>
<td>Hazard Zone C</td>
</tr>
</tbody>
</table>

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification full opening head, steel salvage cylinder of welded construction, with provisions for securely positioning the damaged cylinder contained within. The salvage cylinder must conform with the Chlorine Institute's drawing 188 dated March 19, 1987 on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) except that for use with sulphur dioxide an O-ring constructed of EPDM is used in place of the standard Viton O-ring. The salvage cylinder must be designed, constructed and stamped in accordance with Section VIII of the ASME Code for a working pressure of 250 psig at 300°F and as follows:

Volume: ........................................ 31 gallon water capacity (nominal).
Material: ........................................ ASTM A 283, A 53 Gr. B, or equivalent carbon steel.

Outside diameter: .......................... 12 inches, nominal.
Length: ........................................ 64 inches, nominal.
Sidewall thickness: .......................... 0.250 inch, nominal (.230 inch, min.)

Design Service pressure (MAWP) ............ 250 psig at 70°F
Test Pressure: ................................ 375 psig
Openings - Sidewall: ........................ 3/4 inch threaded outlet inside a valve protective cap.
Openings - head: ............................. Full opening head, hinged to cylinder sidewall.
Pressure relief devices..............None.
Welded attachments....................2-lifting rails
                                        2-supports

b. TESTING AND INSPECTION - Each salvage cylinder must be visually inspected (internally and externally) and hydrostatically retested once every 2 years at a test pressure of at least 375 psig. [The visual inspections must be in accordance with the Compressed Gas Association's Pamphlet C-6.] The retest and inspection must be made by an employee that is familiar with the salvage cylinder and is trained and experienced in the use of the inspection and testing equipment. Records of retest must be made available to a DOT representative upon request.

c. OPERATIONAL CONTROLS -

(1) The O-ring used in the salvage cylinder must be compatible with the hazardous material in the leaking or damage cylinder.

(2) Each salvage cylinder must be cleaned and purged after each use.

(3) Drivers and other persons who load/unload or transport the salvage cylinder must be trained in the handling, loading and unloading of the salvage cylinder. The loaded salvage cylinder must be delivered to the consignor or the consignee as soon as practicable.

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 a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

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. **MARKING** - Each salvage cylinder must be plainly marked on the cylinder sidewall, 180 degrees apart, in letters and numbers at least 2 inches high on a contrasting background, "DOT-E 11459" and "SALVAGE CYLINDER".

g. Each salvage cylinder must be labeled as prescribed for a chlorine cylinder or as prescribed for a sulphur dioxide cylinder.

h. Salvage cylinders are authorized for overpacking leaking 100 and 150 pound capacity DOT 3A480, DOT 3AA480 or DOT 4BA300 as appropriate for chlorine or sulfur dioxide cylinders.

i. Transportation of Division 2.3 (gases which are poisonous by inhalation) are not authorized aboard cargo vessel unless specifically authorized in the Hazardous materials Table (§ 172.101)

9. **MODES OF TRANSPORTATION AUTHORIZED:** Cargo vessel and motor vehicle.

10. **MODAL REQUIREMENTS:**

   a. A current copy of this exemption must be carried aboard each cargo vessel and motor vehicle used to transport packages covered by this exemption.

   b. Each salvage cylinder must be secured to the motor vehicle by a securement system that conforms with the requirements contained in §§ 393.100 through 393.106.

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: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (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.

Issued in Washington, D.C.

Robert A. McGuire
Associate Administrator
for Hazardous Materials Safety

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.
Continuation DOT-E 11459 (5th Rev.)

PO: db