

# US ECOLOGY, INC. TASK PROCEDURES

## OPERATING, INSPECTION, AND MAINTENANCE PROCEDURE FOR THE SUPER TIGER PROTECTIVE OVERPACK

### PURPOSE

The purpose of this procedure is to provide operating, inspection and maintenance instructions for the US Ecology Model 6400 (Certificate of Compliance No. 6400) Super Tiger Protective Overpack.

### SCOPE

This procedure addresses user responsibilities and instructions relating to the following activities:

- o Inner container/bin inspection, loading and maintenance
- o Super Tiger Overpack Operational Inspection
- o Overpack loading and unloading
- o Overpack installation on trailer
- o Overpack removal from trailer.

### RESPONSIBILITIES

1.0 Prior to use or operation of the Model 6400 protective overpack, each registered user shall ensure that:

- o A Certificate of Compliance (C of C) for the Model 6400 and all the documents referenced by the C of C which relate to the use and maintenance of the overpack shall be on file.
- o Documented inspections verifying compliance with the terms and conditions of the C of C are performed under a quality assurance program.

TITLE OPERAT., INSPECT. & MAINT. OF 6400		APPROVED <i>Richard C. Shaw</i>	DATE 3-18-92
PREPARED BY MARK S. CADE	DATE MARCH 17, 1992	QUALITY ASSURANCE MANAGER <i>John R. Erick</i>	DATE 3-18-92
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- o Overpack loading, closure and maintenance is performed in accordance with this procedure or a procedure which includes all provisions of this procedure.
- o The shipment package meets all of the applicable requirements established by the Department of Transportation (DOT), Nuclear Regulatory Commission (NRC), Certificate of Compliance No. 6400 and applicable burial site disposal criteria and licenses.
- o All inspection, decontamination and other overpack related documentation is maintained or forwarded to the US Ecology Quality Assurance Department.

## PROCEDURE

### [A] INNER CONTAINER INSPECTION

- 1.0 Ensure that the inner container is packaged and secured in full compliance with NRC Certificate of Compliance No. 6400 (see User Manual Section 2).
- 2.0 Container inspection results shall be documented in Part "A" of the Super Tiger Operational Inspection Form #CSK-003-A (see Attachment 1).

### [B] OVERPACK OPERATIONAL INSPECTION

- 1.0 Prior to each use, the following overpack inspections shall be performed and documented on Form #CSK-003-A, Part "B" (see Attachment 1).

#### **Gasket Condition**

A silicone rubber gasket is glued to the main inner shell. A visual inspection for damage shall be performed each time the door is opened.

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Any defects, other than regluing separated areas, shall require replacement. Gasket material shall be silicone ZZR765-2A with a durometer measuring 60 and purchased from I.B. Moore Corporation, Lexington, Kentucky, 606/255-5501. Gasket material shall be replaced on an annual basis.

## Filter Condition

A 3x3x3 filter (99.97% efficiency) is attached to the inner door. A visual inspection for damage shall be performed each time the door is opened. Any defects in this filter shall require replacement. Filters shall be Model H0303Z or equivalent and purchased from Hefco, Lancaster, Pennsylvania, 800/433-2605. Filters shall be replaced on an annual basis.

## Door Closure

The outer door is held in place by two hinges and ten bolts. The inner door with three hinges and 36 bolts. Each hinge shall be inspected to ensure that they swing freely and do not bend. The bolts in the door shall be inspected for cracks, damaged threads and excessive rust. Each time the bolts are inspected they should be cleaned and lubricated. Any bolt which must be replaced shall be replaced with a bolt which meets certification requirements (Figure 1).

## Nameplate

Ensure that the nameplate is legible and in place on the container.

## Door Condition

Inspect the door for damage or signs of metal-to-metal contact.

## Internal and External Conditions

The overpack shall be inspected prior to release. Any tears or holes must be repaired prior to release. Also, the overpack shall be inspected for water or debris accumulation in the internal cavity. If any defects are identified, US Ecology will be notified prior to repair and release.

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## Tiedown System Condition

All components of the overpack tiedown system shall be inspected to ensure that no damage or wear is present which would degrade its operation. Lugs and shackles on the overpack and trailer shall be inspected for cracks and wear. Tiedown ratchets and other hardware shall be inspected for proper working condition. All cables are to be inspected to assure they are not crimped, frayed or damaged.

## [C] SUPER TIGER OVERPACK LOADING

### "PRECAUTIONS"

- o Transportation trailer must be located on level ground during loading operations.
  
- 1.0 Unbolt the outer door and remove the ten bolts. Swing the door open and secure (Figure 1).
  
- 2.0 Unbolt the inner door and remove the 36 bolts. Swing the door open and secure (Figure 1).
  
- 3.0 Load the material into the overpack ensuring that the containers do not damage the overpack inner surfaces and that the center of gravity of the content is substantially the same as the center of gravity of the empty container. At no time shall a forklift enter the overpack to load drums due to excessive floor loading concerns.
  
- 4.0 Close and bolt the respective overpack doors.
  
- 5.0 Insert a lead wire security seal through one of the outer door closure bolts and security seal.

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6.0 Section B of the Super Tiger Operational Inspection Form shall be completed prior to loading and any deficiency noted shall be reported to the US Ecology Quality Assurance Department. Deficiencies shall be documented and dispositioned in accordance with QAP 15.01.

## [D] SUPER TIGER OVERPACK UNLOADING

- 1.0 Ensure that the transportation trailer is on level ground prior to unloading the container.
- 2.0 Remove the security seal and perform steps 1.0 and 2.0 of procedure Section C.
- 3.0 Unload the material from the overpack ensuring that the containers do not damage the overpack inner surface. At no time shall a forklift enter the overpack to unload drums due to excessive floor loading conditions.
- 4.0 Section B of the Super Tiger operational inspection form shall be completed following unloading and any deficiency noted shall be reported to US Ecology's Quality Assurance Department. Deficiencies shall be documented and dispositioned in accordance with QAP 15.01.

## [E] INSTALLATION ON TRANSPORT TRAILER

### "PRECAUTIONS"

- o To ensure proper adjustment of overpack tiedown assemblies, the trailer the overpack is loaded onto must be level.
- o At no time shall the overpack be lifted if they are loaded with radioactive material.

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- o The connections located on the body of the overpack in the corners shall be used for lifting.
  - o All lifting hardware and equipment shall be capable of lifting at least 15,000 pounds (empty Super Tiger only).
- 1.0 Attach (or use a lifting beam) each end of a four-part sling with slope angles no greater than 60 degrees to each of the four-tiedown/I.S.O. connections.
  - 2.0 Attach the sling to the crane block and slowly lift the overpack.
  - 3.0 While suspended, inspect the overpack's bottom for any debris that may have adhered to it. If any is noted, it must be removed.
  - 4.0 Lower the overpack onto the transport trailer. The overpack should be positioned such that it is centered side to side on the trailer.
  - 5.0 The overpack will be secured with tiedown devices. Each tiedown shall be inspected to ensure there are no frays, cuts or other damage that would impair its performance. Acceptable tiedown arrangements are shown in Figure 2.
  - 6.0 Each tiedown will be tightened so that there is one-half inch of movement in the cable. This will ensure that the overpacks will remain secure during transit and not be damaged due to trailer flexing.

## [F] REMOVAL FROM TRANSPORT TRAILER

### "PRECAUTIONS"

- o At no time shall the overpack be lifted if they are loaded with radioactive material.

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o All lifting hardware and equipment shall be capable of lifting at least 15,000 pounds (empty Super Tiger only).

- 1.0 Loosen and remove the tiedown assemblies from the cask tiedown/lifting system and trailer.
- 2.0 Attach each end of a four-part sling to each of the containers corner connections.
- 3.0 Attach the sling to the crane block and slowly lift the overpack.
- 4.0 Lower the overpack onto blocks set on the ground. At no time should the overpack be stored in direct contact with the ground.

## [G] RECORDS

- 1.0 Each Super Tiger protective overpack user shall maintain records providing documented evidence of overpack inspections, decontamination surveys and when applicable, material certificates of compliance.
- 2.0 Documentation which support overpack repair and/or maintenance shall be forwarded to the US Ecology Quality Assurance Department.

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**OPERATIONAL INSPECTION FORM**

Super Tiger Unit No(s). \_\_\_\_\_

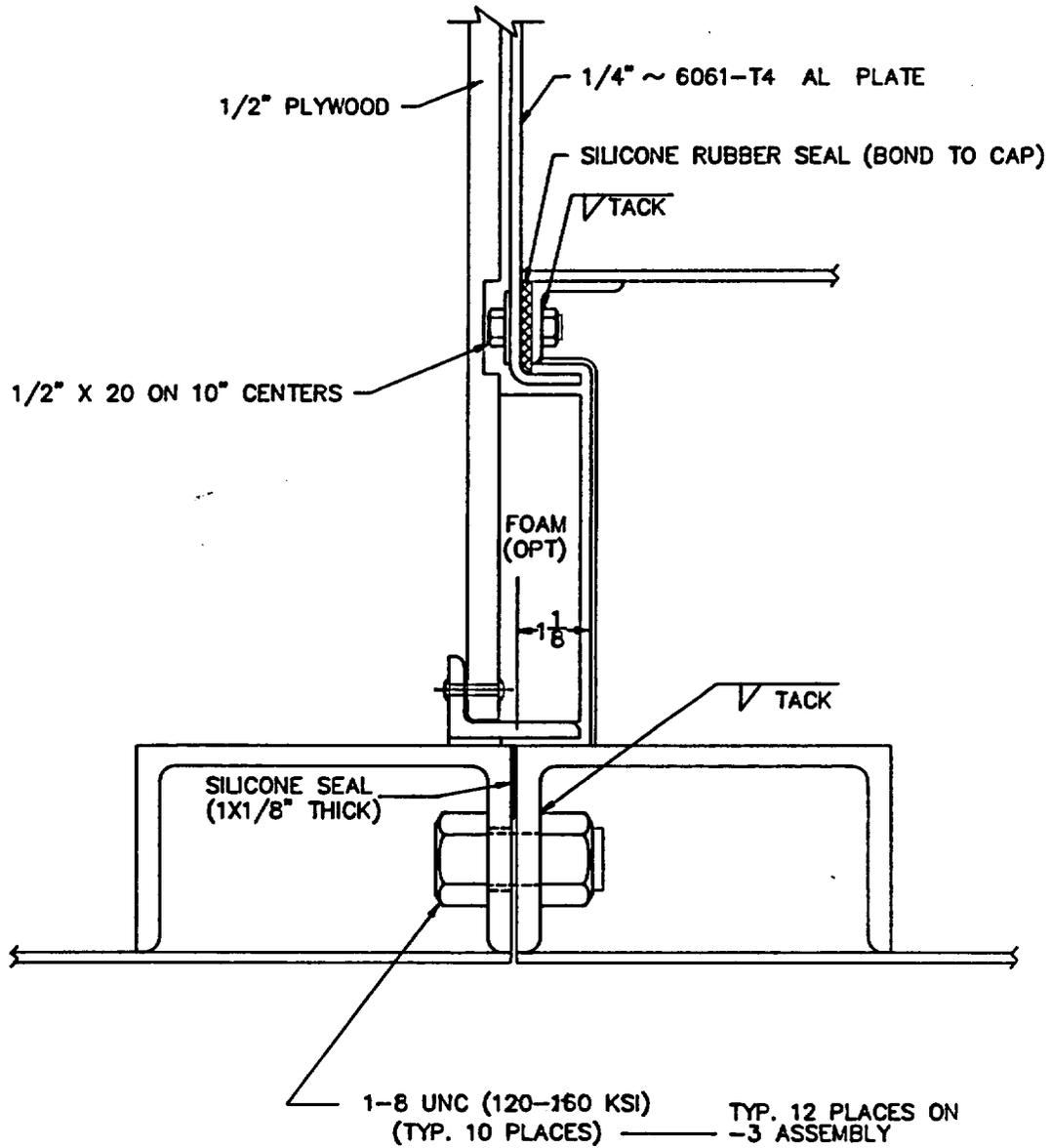
	<u>Satisfactory</u>	<u>Unsatisfactory</u>	<u>NCR No.</u>
<b>PART A, <u>INNER CONTAINER</u></b>			
1.0 Contents in Accordance With C of C 6400 Requirements	_____	_____	_____
2.0 Contents Packed Full or Securely Braced	_____	_____	_____
<b>PART B, <u>SUPER TIGER OVERPACK</u></b>			
1.0 Door Closure			
o Outer Hinges			
o Inner Hinges			
o Outer Door Bolts			
o Inner Door Bolts			
o Outer Door Alignment			
o Inner Door Alignment			
o Outer Door Bolt Holes			
o Inner Door Bolt Holes			
o Outer Door Gasket Condition			
o Inner Door Gasket Condition	_____	_____	_____
2.0 Name Plate Legible and Secure	_____	_____	_____
3.0 Container Condition (Internal and External)	_____	_____	_____
4.0 Contamination Survey (When Required)	_____	_____	_____
5.0 Tiedown System Condition	_____	_____	_____

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

NCR - Nonconformance Report

# SUPER TIGER PROTECTIVE OVERPACK DOOR BOLTING ASSEMBLY INNER/ OUTER



NO SCALE

FIGURE 1

# SUPER TIGER PROTECTIVE OVERPACK TIE DOWN

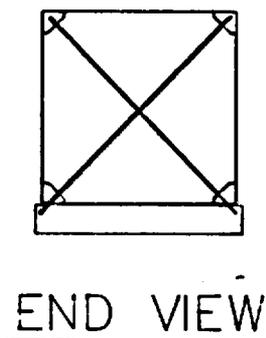
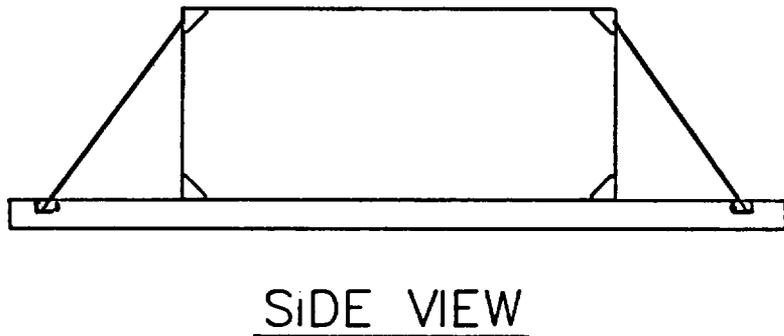
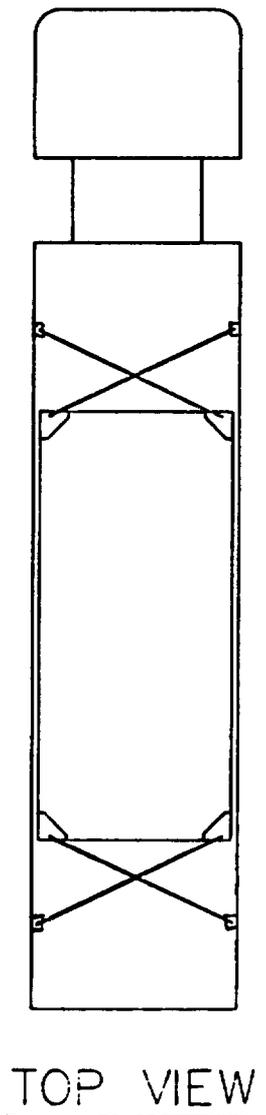


FIGURE 2