



**Veterans  
Administration**

August 11, 1989

In Reply Refer To: 654/115

United States Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Dear Sir:

We have received your notice of violation (Docket No. 30-08714/89-01 License No. 27-15192-01) addressing an inspection of our facility by Mr. Paul R. Zurakowski, on July 11-12, 1989. This communication is our response to this notice.

1. REFERENCE ITEM A: As indicated in the cover letter signed by Robert J. Pate, it is not necessary to reply to this item because it has already been appropriately corrected.

2. REFERENCE ITEM B: Although it is our recollection that an inservice session on radiation safety was given to housekeeping during calendar year 1988, unfortunately no records were kept. We accept this deficiency and will correct this problem. Mr. Billy Fu, our in-hospital "Safety Officer" (non-radiation) has set up an inservice training session with housekeeping on September 8, 1989. The discussion leader will be responsible for maintaining records of those persons attending. Those members of the housekeeping staff with responsibilities in the Nuclear Medicine area will be identified and steps will be taken to ensure that these individuals will receive the radiation safety materials prepared. This inservice for housekeeping personnel will be held, in the future, during the fourth week of August every year (see enclosed calendar [Attachment C] and memo to Mr. Fu [Attachment A]).

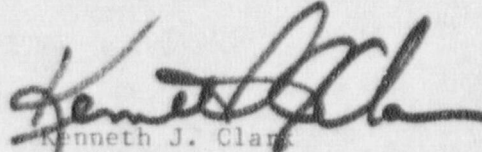
3. REFERENCE ITEM C: As indicated in the cover letter, this item has already been appropriately corrected.

4. REFERENCE ITEM D: We accept the fact that we are in noncompliance with respect to maintaining a file of complete documentation of tests and an engineering evaluation showing that the DOT 55 gallon drums used for waste storage and disposal are acceptable. We have obtained necessary documentation on containers and have requested future such documentation upon acceptance of containers (Attachments B and D).

TE07  
11

If you have any questions concerning these matters please feel free to contact Lee B. Darrah, M.D., VA Radiation Safety Officer at (702) 786-7200 extension 346.

Sincerely yours,

  
Kenneth J. Clark  
Director

Enclosures: 4

cc: United States Nuclear Regulatory Commission  
Regional Administrator, Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, CA 94596

ATTACHMENT A

Date: 9 August 1989

To: Mr. Billy Fu  
VAMC Safety Officer

cc: Lee Darrah, M.D.

From: E. Carl Chamberlain  
Consultant Physicist

SUBJ: Radiation Safety Inservice for Housekeeping Staff

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Could you please arrange:

1) An inservice session on the subject of Radiation Safety for all housekeeping personnel during the fourth week of August. It would be best for me about 3 to 4 p.m. on Monday, Tuesday, or Friday. I will keep my own record of attendance and report it to Lee Darrah, M.D., the radiation safety officer.

2) Obtain a list of those specific housekeeping personnel with responsibilities in the Nuclear Medicine area and report the names of these individuals to me prior to the inservice session. Thanks.

3) To have on the calendar (a copy of which is attached) this inservice session along with the other indicated inservices.

If you have any problems with this please contact me.



ATTACHMENT B

9 August 1989

To: Kathleen Schagg, Ph.D.  
VAMC Research

From: Lee Darrah, M.D.  
Radiation Safety Officer  
VAMC

Subject: NRC Notice of Violation  
Lack of Container Documentation

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Would you please take the appropriate steps as soon as possible to:

1) Obtain from your vendor the documentation necessary to prove the containers you presently have on site are safe to transport radioactive waste. This can most likely be accomplished easily by calling your vendor and requesting the information be sent as soon as possible. We need this information on site prior to 15 Sept 1989.

2) In the future, at the time of acceptance of containers for storage and shipment, request of the vendor the necessary documentation and maintain a file of this information.

If you have any question please call.



ATTACHMENT C

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\* VAMC HOUSEKEEPING INSERVICE \*  
\*\*\*\*\*

September 1989

-----  
8 Friday  
VAMC HOUSEKEEPING RAD SAFE  
INSERVICE

August 1990

-----  
28 Tuesday  
VAMC HOUSEKEEPING RAD SAFE  
INSERVICE

August 1991

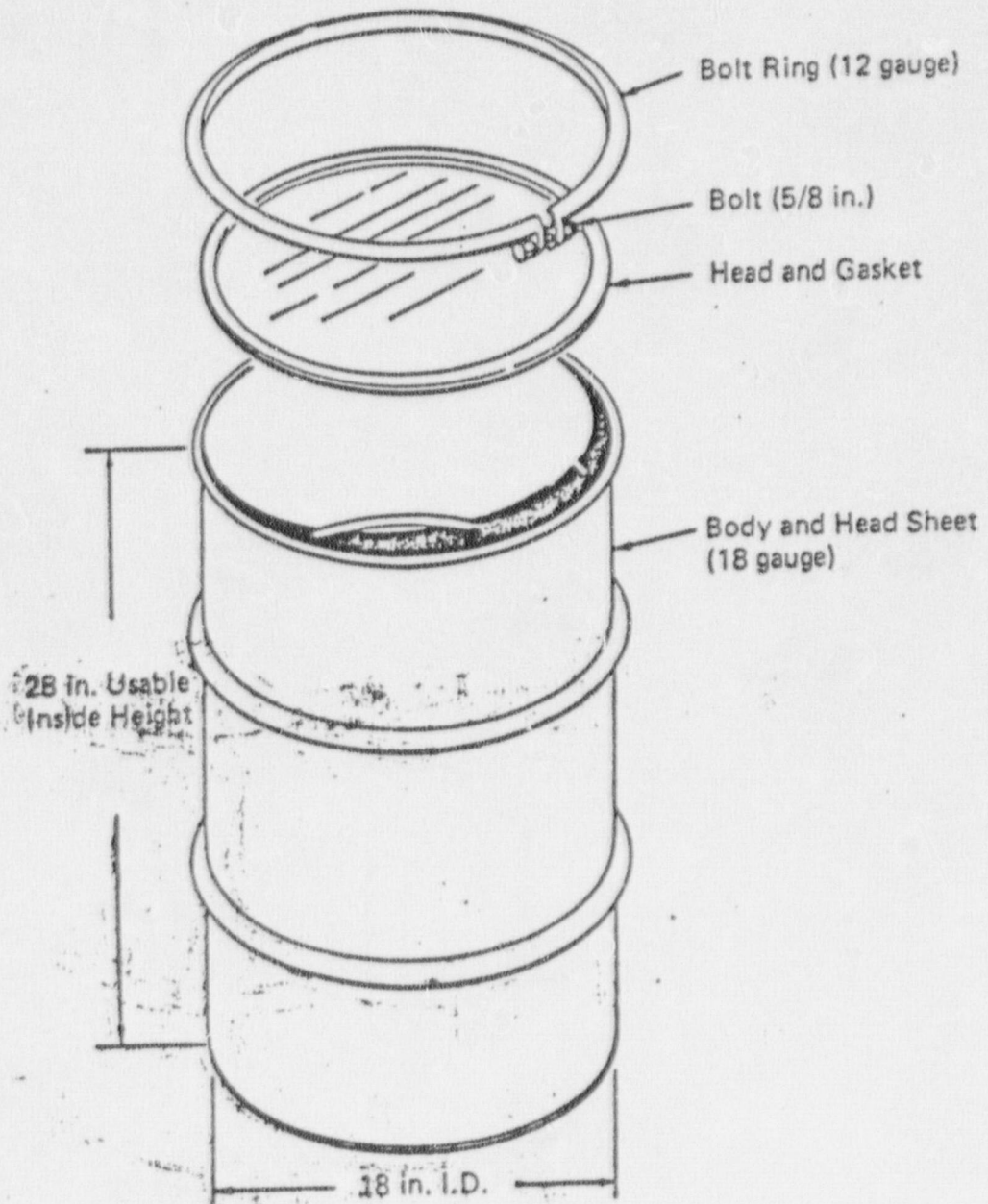
-----  
27 Tuesday  
VAMC HOUSEKEEPING RAD SAFE  
INSERVICE

August 1992

-----  
25 Tuesday  
VAMC HOUSEKEEPING RAD SAFE  
INSERVICE

ATTACHMENT D

DOT 7A Type A  
49CFR 178.350  
Steel Drum (30 gallon) - 17H  
49CFR § 178.118



1. PACKAGE DESCRIPTION

COMMON NAME: DOT Spec 17H Steel Drum (30 gal)

DIMENSIONS:    Height(in.)            Diameter(in.)

Interior	28	18
Exterior	29-1/2	20

MATERIALS/METHODS OF CONSTRUCTION:

Body and Head Sheet - 18 gauge  
Ring - 12 gauge  
Bolt - 5/8 inch  
Gasket Required

2. AUTHORIZED CONTENTS

FORM: The three forms are certified - each shipper must determine determine the most appropriate form for this particular contents and comply with any special requirements (i.e. RTV, inner bag, etc.)

- . Material Form No. 1: Solids - any particle size
- . Material Form No. 2: Solids - large particle size only (i.e. sand, concrete, debris, soil, etc.)
- . Material Form No. 3: Solids - objects with no significant dispersible or removable contamination\*

MAXIMUM GROSS WEIGHT:

Form No. 1: 400 lb.  
Form No. 2 and 3: 500 lb.

RESTRICTIONS/SPECIFICATIONS

- . For Form No. 1 Contents - RTV sealant or equivalent must be applied to the surface of the gasket in contact with the drum body.
- . For Form No. 2 and No. 3 Contents - No packaging component requirements other than as described in Paragraph 1 are specified.

\*For definition see 173.433 Contamination Control



### RESTRICTIONS/SPECIFICATIONS (continued)

- . Bolt closure tightened to 40 ft-lb with tapping of ring during tightening.
- . Gasket material must have operating range of -40°F to +158°F.
- . A dent of approximately 2 3/4 inches resulted from the 4-ft drop on the bottom chime. Each shipper must ensure that the radiation level at the surface of the package will not increase by more than 20%.
- . For heavy, bulky materials (i.e., concrete chunks, motors, pumps), equipment or materials with sharp corners or protrusions, or for material/containment geometries which could result in highly localized forces, the shipper must assure that the contents are securely fastened, positioned within the package.
- . The shipper must determine that the actual contents are closely simulated by the test contents. If this is not true, testing/analysis must be conducted and documented to demonstrate Spec 7A compliance with the actual contents.

### 3. 49 CFR 178.350 REGULATORY REQUIREMENTS

	<u>Testing/Analysis Results</u>
A) 49 CFR 173.24 Standard Requirements for All Packages	Meets Applicable Requirements See MLM - 3245 Add. 1
B) 49 CFR 173.411 General Design Requirements	Meets Applicable Requirements See MLM - 3245 Add. 1
C) 49 CFR 173.412 Additional Requirements for Type A Packages	Meets Applicable Requirements See MLM - 3245 Add. 1
	Note: This packaging failed the reduced pressure test without the RTV or equivalent.
D) 49 CFR 173.465 Type A Packaging Tests	Meets Applicable Requirements See MLM - 3245 Add. 1
. Water Spray Test	<u>Pass</u> Test not conducted; however this test would not adversely affect the ability of this packaging to meet the Type A test requirements.

RESTRICTIONS/SPECIFICATIONS (continued)

- . Bolt closure tightened to 40 ft-lb with tapping of ring during tightening.
- . Gasket material must have operating range of -40°F to +158°F.
- . A dent of approximately 2 3/4 inches resulted from the 4-ft drop on the bottom chime. Each shipper must ensure that the radiation level at the surface of the package will not increase by more than 20%.
- . For heavy, bulky materials (i.e., concrete chunks, motors, pumps), equipment or materials with sharp corners or protrusions, or for material/containment geometries which could result in highly localized forces, the shipper must assure that the contents are securely fastened, positioned within the package.
- . The shipper must determine that the actual contents are closely simulated by the test contents. If this is not true, testing/analysis must be conducted and documented to demonstrate Spec 7A compliance with the actual contents.

3. 49 CFR 178.350 REGULATORY REQUIREMENTS

	<u>Testing/Analysis Results</u>
A) 49 CFR 173.24 Standard Requirements for All Packages	Meets Applicable Requirements See MLM - 3245 Add. 1
B) 49 CFR 173.411 General Design Requirements	Meets Applicable Requirements See MLM - 3245 Add. 1
C) 49 CFR 173.412 Additional Requirements for Type A Packages	Meets Applicable Requirements See MLM - 3245 Add. 1
	Note: This packaging failed the reduced pressure test without the RTV or equivalent.
D) 49 CFR 173.465 Type A Packaging Tests	Meets Applicable Requirements See MLM - 3245 Add. 1
. Water Spray Test	<u>Pass</u> Test not conducted; however this test would not adversely affect the ability of this packaging to meet the Type A test requirements.

3. 49 CFR 178.350 REGULATORY REQUIREMENTS (continued)

Testing/Analysis Results

. Free Drop Test

Pass

4 foot drop test conducted on:

Top - approximately 45° on  
bolt

Bottom - approximately 45°

Side - Flat on bolt

Top - Flat

Bottom - Flat

See MLM - 3245, Add. 1

- Corner drop  
(not required)

. Compression Test

Pass

This test was conducted at  
greater than 5 times the gross  
weight for 24 hours. No  
detectable effect on the  
packaging was observed. See  
MLM - 3245, Add. 1.

. Penetration Test

Pass

This test was not conducted.  
Conclusion based on successful  
testing of comparable 17H 55  
gallon drum.



## 4) QUALITY CONTROL

PACKAGING/ACCEPTANCE/USE CRITERIA

PROCUREMENT ATTRIBUTES		ACCEPTANCE/PRE-USE/INSPECTION
CRITICAL	MAJOR	CRITERIA
Lid/body inter- face •Sealing surface	Vendor qualifi- cations & exper- ience	Functional: •Ease of lid/closure ring application •Bolt closure ring--bolt size •Gasket, adhesive, as specified •Geometry as specified  <u>Acceptable Conditions:</u> •Lack of dents, deformation of sealing surfaces •Dimensions as specified  •Gasket size, materials, geometry  •Continuous welds, no sharp edges
Gasket		
Weld areas		
Body and chime •Air leak tests	Metal thickness •Bolt size	<u>Lot Tests By Shipper As Appropriate and/or Vendor Data Certification:</u> •Marking •Test data •Type A Certification Document provided as appropriate •Air leak tests
	Protective coat- ing application	<u>Visual:</u> •Surface/coating as specified •Lack of imperfections in application •Lack of rust, dents, nicks

5. ADDITIONAL INFORMATION

PRIMARY USER(S):  
 Martin Marietta Energy Systems, Inc.  
 P.O. Box Y  
 Oak Ridge, Y-12 Plant  
 Oak Ridge, Tn. 37830  
 Contact: H. E. Crowder  
 FTS 624-2689  
 Comm. 615-574-2689

For additional information:

Don A. Edling  
 Mound - MRC  
 FTS 774-3919  
 Comm (513) 865-3919

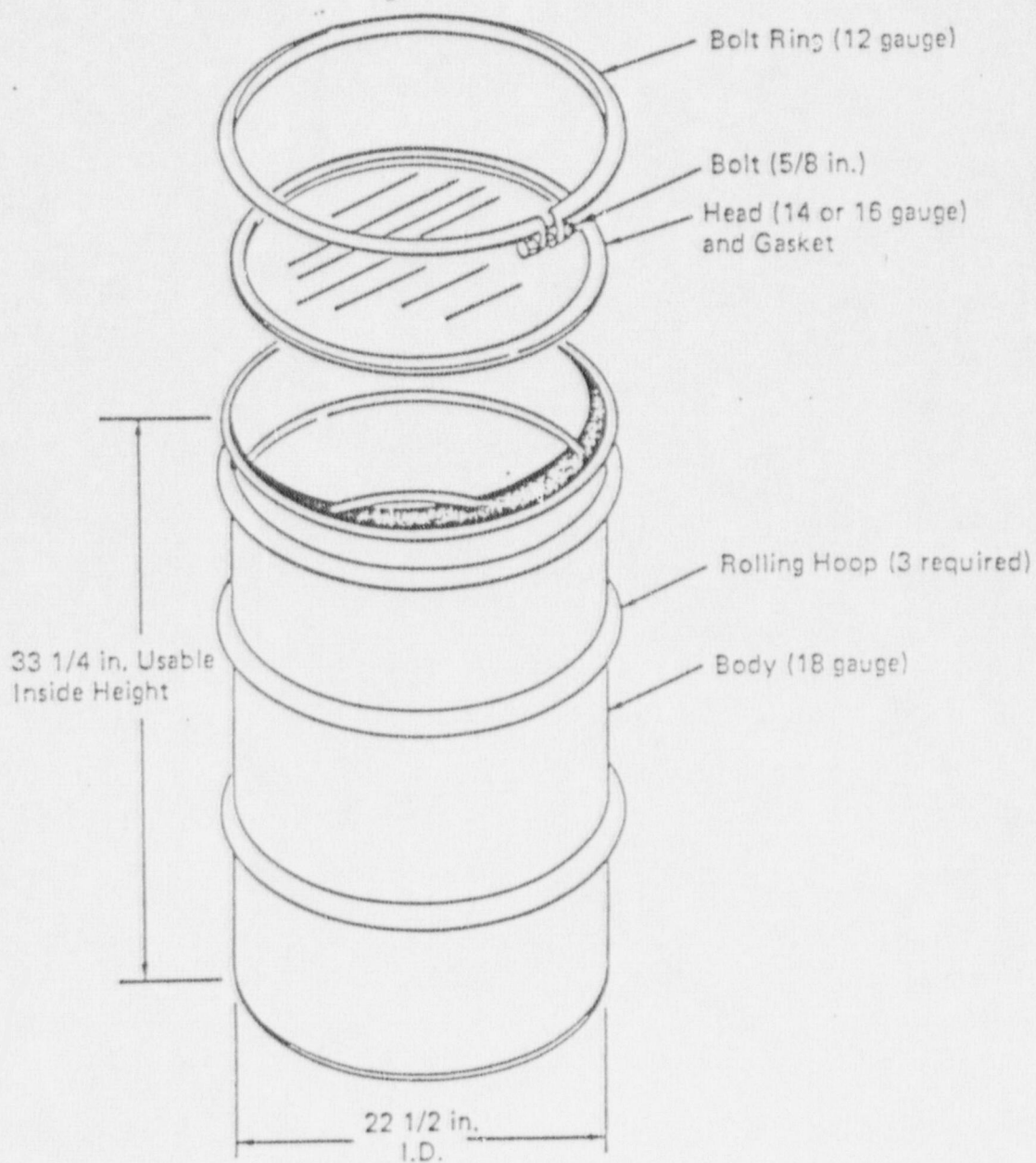
7A TEST DATA FOR A 17H

55 GALLON DRUM

DOT 7A Type A  
49CFR 178.350  

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Steel Drum (55 gallon) - 17H  
49CFR 178.118



1. PACKAGE DESCRIPTION

COMMON NAME: DOT Spec 17H Steel Drum (55 gal)

DIMENSIONS: Height (in.)      Diameter (in.)

Interior              33 1/4              22 1/4

Exterior             35                    24

MATERIALS/METHODS OF CONSTRUCTION:

Body - 18 gauge

Head - 14 or 16 gauge

Ring - 12 gauge

Bolt - 5/8 inch

Gasket required

2. AUTHORIZED CONTENTS

FORM: Three forms are certified - each shipper must determine the most appropriate form for their particular contents and comply with any special requirements (i.e., RTV, inner bag, etc.)

- . Material Form No. 1: Solids - any particle size
- . Material Form No. 2: Solids - large particle size only (i.e., sand, concrete, debris, soil, etc.)
- . Material Form No. 3: Solids - objects with no significant dispersible or removable contamination.\*

MAXIMUM GROSS WEIGHT: Form No. 1: 900 lb

Form No. 2: 1000 lb

and

Form No. 3: 1000 lb

RESTRICTIONS/SPECIFICATIONS

- . For Form No. 1 Contents: RTV sealant (or equivalent) must be applied to the surface of the gasket in contact with the drum body.
- . For Form No. 2 and 3 Contents: No packaging component requirements other than as described in Paragraph 1 are specified.

\*For definition see 173.443 Contamination Control



### Restrictions/Specifications (continued)

- Bolt closure tightened to 40 ft-lb with tapping of ring during tightening.
- Gasket material must have an operating range of -40°F to 158°F
- A dent of approximately 3 3/4 inches resulted from the 4 ft drop on the top edge. Each shipper must ensure that the radiation level at the surface of the package will not increase by more than 20%.
- For heavy, bulky materials (i.e., concrete chunks, motors, pumps), equipment or materials with sharp corners or protrusions, or for material/containment geometries which could result in highly localized forces, the shipper must assure that the contents are securely fastened, positioned within the package.
- The shipper must determine that the actual contents are closely simulated by the test contents. If this is not true, testing/analysis must be conducted and documented to demonstrate Spec 7A compliance with the actual contents.

### 3. 49 CFR 178.350 REGULATORY REQUIREMENTS

#### Testing/Analysis Results

A) 49 CFR 173.24 Standard Requirements for all Packages	Meets Applicable Requirements See MLM - 3245 Add. 1
B) 49 CFR 173.411 General Design Requirement	Meets Applicable Requirements See MLM - 3245 Add. 1
C) 49 CFR 173.412 Additional Requirements for Type A Packages	Meets Applicable Requirements See MLM - 3245 Add. 1 Note: This packaging failed the reduced pressure test without the RTV or equivalent.
D) 49 CFR 173.465 Type A Tests	Meets Applicable Requirements See MLM - 3245 Add. 1
• Water Spray Test	<u>Pass</u>  Test not conducted; however this test would not adversely affect the ability of this packaging to meet the Type A test requirements.

3. (continued)

Testing/Analysis Results

. Free Drop Test (4 ft)

Pass

4 foot drop test conducted on:

Top - approximately 45° on  
bolt

Bottom - approximately 45°  
on chime

Side - Flat on bolt

Top - Flat

Bottom - Flat

See MLM - 3245, Add. 1

- Corner drop  
(not required)

. Compression Test

Pass

This test was conducted with  
greater than 5 times the  
gross weight for 24 hr. No  
detectable effect on the  
packaging was observed.  
See MLM - 3245, Add. 1

. Penetration Test

Pass

This test was conducted on  
the center of the lid and on  
the center of the side body  
(seam). Only minor dents  
resulted.

See MLM - 3245 Add. 1

PACKAGING/ACCEPTANCE/USE CRITERIA

PROCUREMENT ATTRIBUTES		ACCEPTANCE/PRE-USE/INSPECTION
CRITICAL	MAJOR	CRITERIA
Lid/body inter- face •Sealing surface	Vendor qualifi- cations & exper- ience	<u>Functional:</u> <ul style="list-style-type: none"> <li>•Ease of lid/closure ring application</li> <li>•Bolt closure ring--bolt size</li> <li>•Gasket, adhesive, as specified</li> <li>•Geometry as specified</li> </ul> <u>Acceptable Conditions:</u> <ul style="list-style-type: none"> <li>•Lack of dents, deformation of sealing surfaces</li> <li>•Dimensions as specified</li> </ul>
Gasket		<ul style="list-style-type: none"> <li>•Gasket size, materials, geometry</li> </ul>
Weld areas		<ul style="list-style-type: none"> <li>•Continuous welds, no sharp edges</li> </ul>
Body and chime •Air leak tests	Metal thickness •Bolt size	<u>Lot Tests By Shipper As Appropriate and/or Vendor Data Certification:</u> <ul style="list-style-type: none"> <li>•Marking</li> <li>•Test data</li> <li>•Type A Certification Document provided as appropriate</li> <li>•Air leak tests</li> </ul>
	Protective coat- ing application	<u>Visual:</u> <ul style="list-style-type: none"> <li>•Surface/coating as specified</li> <li>•Lack of imperfections in application</li> <li>•Lack of rust, dents, nicks</li> </ul>



5. ADDITIONAL INFORMATION

PRIMARY USER(S): MOUND-MRC  
Mound Road  
P.O. Box 32  
Miamisburg, Ohio 45342

Contact: Don A. Edling  
FTS 774-3919  
COMM 513/865-3919

Battelle Columbus Laboratories  
505 King Ave.  
Columbus, Ohio 43201

Contact: T. R. Emswiler  
COMM 614/879-5165

Martin-Marietta Energy Systems, Inc.  
P.O. Box Y  
Oak Ridge Y-12 Plant  
Oak Ridge, TN 37830

Contact: H. E. Crowder  
FTS 624-2689  
COMM 615/574-2689

SUPPLIER: FBF, Incorporated  
1201 Hilton Rd.  
Middlebrook Industrial Park  
Knoxville, TN 37921

Ohio Corrugating Co.  
1301 Pine Ave., S.E.  
Warren, Ohio 44481