



**Department of Energy**  
Carlsbad Field Office  
P. O. Box 3090  
Carlsbad, New Mexico 88221  
January 18, 2011  
2011



Mr. James Bearzi, Chief  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 E. Rodeo Park Dr. Bldg. 1  
Santa Fe, New Mexico 87505-6303

**Subject:** Certification by a New Mexico Registered Professional Engineer in Support of TRUPACT-III

**References:** United States Department Of Energy letter CBFO:OESH:GTB:MAG:11-0702:UFC 5487.00 from Edward Ziemianski and M. F. Sharif to James Bearzi, dated January 10, 2011, subject: Notification of Planned Change to the Permitted Facility to Support TRUPACT-III

United States Department Of Energy letter CBFO:ORC:GTB:MDA:10-1623:UFC 5487.00 from David C. Moody and M. F. Sharif to James Bearzi, dated September 16, 2010, subject: Notification of Planned Change to the Permitted Facility to Support TRUPACT-III

Dear Mr. Bearzi:

The purpose of this letter is to transmit to your office a New Mexico registered Professional Engineer (PE) certification that the facility has been modified in accordance with the design drawings and, consequently, is in compliance with the Waste Isolation Pilot Plant Hazardous Waste Facility Permit (Permit). The following modifications have been completed:

- Leveling the Conveyance Loading Room Floor
- Pallet Stand 41-T-W4 Installation in Room 103
- Damper Installation between Room 103 and Room 108 Wall
- Installation of Conduit Wall Penetrations in Building 411

In the above referenced letters, the Hazardous Waste Bureau was notified of planned changes to support TRUPACT-III. In accordance with the Waste Isolation Pilot Plant Facility Permit, Part 1, *General Permit Conditions*, Section 1.7.11.2.i, we have enclosed a letter from a New Mexico registered PE certifying that the facility has been modified in accordance with the design drawings and, consequently, is in compliance with the Permit.

Mr. James Bearzi

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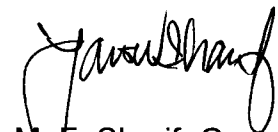
January 18, 2011

We certify under penalty of law that this document and all enclosures were prepared under our direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Please contact George T. Basabilvazo at (575) 234-7488 if you have any questions regarding this documentation transmittal.

Sincerely,

  
Edward Ziemianski, Acting Manager  
Carlsbad Field Office

  
M. F. Sharif, General Manager  
Washington TRU Solutions LLC

Enclosure

cc: w/enclosure  
S. Zappe, NMED \*ED  
\*ED denotes electronic distribution



January 17, 2011

Mr. Curtis Chester  
Deputy Project Manager, TRUPACT III  
Washington TRU Solutions LLC  
P. O. Box 2078  
Carlsbad, NM 88221-2078

**Re: Submittal of Certification of Building 411 Modifications, Supporting the TRUPACT III Project as Follows:**

- **Level Conveyance Loading Room Floor**
- **Pallet Stand 41-T-W4 Installation in Room 103**
- **Damper and Duct Installation Between Room 103 and Room 108 Wall**
- **Installation of Wall Penetrations in Building 411 Associated with TRUPACT III Project**

Dear Mr. Chester:

This letter certifies that the referenced projects were constructed and installed in a manner that will allow waste handling operations to occur in the vicinity in compliance with the WIPP Hazardous Waste Facility Permit (Permit), extant at the date of this Certification Letter.

1. Level Conveyance Loading Room Floor

1.1. The following documents were received and reviewed:

- 1.1.1. Statement of Work, Floor Leveling Project, Revision 2, dated December 21, 2010
- 1.1.2. WTS Purchase Order 413837, Revision 2, dated December 21, 2010
- 1.1.3. CatiaD Final Engineering Documents, received January 6, 2011:
  - 1.1.3.1. AR12, Design Package, dated January 6, 2011
  - 1.1.3.2. Drawing List, Revision 3
  - 1.1.3.3. Bill of Materials, AO15, dated December 29, 2010
  - 1.1.3.4. Layouts Plate Assembly Sequence, dated December 30, 2010
  - 1.1.3.5. Details & Hole Preparation Assembly Procedure, dated December 30, 2010
  - 1.1.3.6. Footage Cross Sections, dated December 30, 2010
  - 1.1.3.7. Interconnecting Key Plates, dated December 30, 2010
  - 1.1.3.8. Footage Chart Map X015-001, dated December 30, 2010
- 1.1.4. Work Order 1009742M, completed & signed off, dated December 30, 2010

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- 1.1.5. MSDS Sheets and Material Specifications for:
  - 1.1.5.1. Stainless Steel Plates
  - 1.1.5.2. Stainless Steel Fasteners
  - 1.1.5.3. Hilti Anchor System
  - 1.1.5.4. Hilti Epoxy Cement
- 1.1.6. Notification of Planned Change, dated September 16, 2010
- 1.2. Equipment Identification:
  - 1.2.1. The Conveyance Loading Room Floor Plates were installed and inspected for certification to the Permit.
- 1.3. General Description of the Confirmation Process:
  - 1.3.1. The above referenced documents were reviewed. The site was visited during the installation and qualification process, done as part of the Work Order acceptance. In addition, a subsequent visit was made to observe the Facility Transfer Vehicle traverse the entire circuit within the Conveyance Loading Room.
- 1.4. System Inspection and Certification:
  - 1.4.1. The Conveyance Loading Room Floor Plates were load tested, using the 13 ton fork lift and, subsequently using the Facility Transfer Vehicle, loaded with a near capacity load. In each instance the floor had no visible deflection. The work Order was then signed off by Engineering and Operations, at the conclusion of the tests.
  - 1.4.2. The subsequent test, requested by me, confirmed that the Facility Transfer Vehicle could negotiate its entire path into the Conveyance Loading Room, stop at the loading rails and depart the Conveyance Loading Room, without incident. This test confirmed the capability of the installed system.
- 2. Pallet Stand 41-T-W4 Installation in Room 103
  - 2.1. The following documents were received and reviewed:
    - 2.1.1. Minimum Aisle Space: "The Permittees shall maintain a minimum aisle space of 44 inches (1.1m) between facility pallets in the CH Bay of the WHB Unit. The Permittees shall maintain adequate aisle space of 44 inches (1.1m) between loaded casks in the RH Bay of the WHB Unit. For other locations within the RH Complex, sufficient aisle space will be maintained to assure that emergency equipment can be accessed or moved to the necessary locations." [Permit issued November 30, 2010, Part 3.1.1.8]
    - 2.1.2. WTS Drawing, 41-Z-100-W, entitled "AGV Pallet Stand Installation."
    - 2.1.3. WTS Drawing 41-F-072-W, Rev. D, entitled "CH Area & Equipment Layout," dated January 25, 2007.
    - 2.1.4. Jervis B. Webb Drawing E1-8 entitled "P & D Station Facility Transfer Vehicle 30,000# Capacity AGV," dated October 31, 2006.
    - 2.1.5. Jervis B. Webb Drawings 248981 and 248982, entitled "FTV P & D Assembly," dated October 31, 2006.
    - 2.1.6. Washington TRU Solutions LLC Work Order Number 1008082M, entitled "Install One Additional AGV Pallet Stand in the Current Contact Handled Bay," all work completed and

signed off on January 6, 2011, including loading and unloading of pallet by the Facility Transfer Vehicle.

2.1.7. Notification of Planned Change, dated September 16, 2010

2.2. Equipment Identification:

2.2.1. The Pallet Stand 41-T-W4, installed in the Contact Handled Bay, was inspected for certification to the Permit.

2.3. General Description of the Confirmation Process:

2.3.1. The above referenced documents were reviewed. Several site visits were made on January 6 and 7, 2011, to review the installed Pallet Stand 41-T-W4 and compare the installation to the drawings. Field measurements were taken, to establish the clearances between the existing Pallet Stand, 41-T-W6 and the new Pallet Stand 41-T-W4.

2.4. System Inspection and Certification:

2.4.1. The confirmation that the four pedestals comprising the Pallet Stand 41-T-W4, were correctly installed is made by reference to the completion of the paragraph 1.6 Work Order Number 1008082M, under which the pallet was successfully placed and removed from the Pallet Stand 41-T-W6, by the Facility Transfer Vehicle. The Work Order was signed off by all affected individuals responsible for the installation, thus allowing functional certification.

2.4.2. The specific clearances between the existing Pallet Stand 41-T-W6 and the new Pallet Stand 41-T-W4 were measured. The plate to plate clearance, Jervis B. Webb Drawing Number 248982, Part "4", is listed as 3 feet-8 inches. The document referenced in paragraph 2.1, page 2, states that " an aisle space of 44 inches (1.1 m) between facility pallets will be maintained in all Waste Handled Building Unit transuranic mixed waste storage areas." The pallet rests between guides on the Pallet Stands, providing an additional 9-7/8 inches of clearance. Therefore it is concluded, by field measurement, that Pallet Stand 41-T-W4 is correctly installed and the specified clearances were met.

3. Damper and Duct Installation between Room 103 & Room 108 Wall

3.1. The following documents were received and reviewed:

3.1.1. Engineering Change Order Number 12633, approved by the cognizant manager on June 24, 2010

3.1.2. Work Order Number 1009944M

3.1.3. Greenheck Damper, Part Number 452763, Installation Instructions

3.1.4. 3M™ Product Data sheet, IC-15WB+ Caulk and Material Safety Data Sheet

3.1.5. Notification of Planned Change, dated September 16, 2010

3.2. Equipment Identification:

3.2.1. The damper was installed in the wall between Room 103 and Room 108, of Building 411.

3.3. General Description of the Confirmation Process:

3.3.1. The Engineering Change Order and the Work Order were reviewed, including drawings included as part of the Engineering Change Order. The damper installation was reviewed and inspected for conformance to the documents and applicable codes.

- 3.4. System Inspection and Certification:
- 3.4.1. The confirmation that the damper and duct were correctly installed was made by inspection at the site and by review of the documents cited in paragraph 3.1, of this letter.
  - 3.4.2. The materials of construction and the sealing compound meet the applicable requirements of the Engineering Change Order and codes.
  - 3.4.3. It is noted that the Work Order could not be completed, as the installation of the damper and duct comprised only a portion of the scope of work. The completed portion of the damper and duct installation was inspected and approved.
4. Installation of 16 Conduit Wall Penetrations in Building 411
- 4.1. The following documents were received and reviewed:
    - 4.1.1. Notification of Planned Change to the Permitted Facility, Waste Isolation Pilot Plant, dated January 10, 2011
    - 4.1.2. Specification for Sealing Building Penetrations, D-0074, Revision 1, dated July 10, 2001
    - 4.1.3. Work Order 1008556
    - 4.1.4. Work Order 1008894
    - 4.1.5. Work Order 1009893
    - 4.1.6. Work Order 1009894
    - 4.1.7. Drawing Number 41-E-003-014, Revision 6, dated August 27, 1987
    - 4.1.8. 3M™ Product Data Sheet-Sealant CP 25WB+
    - 4.1.9. 3M™ Material Safety Data Sheet for CP 25WB+
  - 4.2. Equipment Identification:
    - 4.2.1. The 16 penetrations located in the Permitted Areas were inspected. (One penetration referenced in 4.1.1 between Air Lock 101 and Room 103 was not installed.)
  - 4.3. General Description of the Confirmation Process:
    - 4.3.1. The Notification of Planned Change et al., paragraph 4.1.1, locates the proximity of the penetrations and their approximate sizes. These penetrations were visually inspected during and after the installation process was completed
  - 4.4. System Inspection and Certification:
    - 4.4.1. The confirmation that the penetrations were in conformance with the above cited Work Orders was made during several on-site inspections.
    - 4.4.2. The methodology and materials for sealing the penetrations were reviewed and confirmed by physical inspection of the installations, to allow certification of these 16 installations. The Specification for Sealing Building Penetrations, D-0074, Revision 1, was used as a basis for the confirmations, which included reference to the 3M™ sealant. These materials met the applicable codes and were applied by a contractor well experienced in this work.

5. Certification:

5.1. I certify, under penalty of law that this certification was prepared by me for Washington TRU Solutions LLC. Based upon my personal observations and physical inspections, the information contained in this certification is, to the best of my knowledge and belief, true, accurate and complete.

Sincerely,

**URS Corporation**  
**10800 Richmond Avenue**  
**Houston, TX 77042**



Philip E. Mesenbrink, P. E.  
Supervising Discipline Engineer  
New Mexico Certificate No. 20234, Expires December 31, 2012



PEM: hdm  
Enclosure  
cc: G. L. Valett, WTS

bcc: W. H. Bryan, WTS ED  
D. N. Cook, WTS ED  
R. S. Josey, WTS ED  
P. D. Yocum, WTS ED  
Engineering File Room ED  
R. R. Chavez, WRES ED  
E. D'Amico, WRES ED  
S. B. Jones, WRES ED  
R. F. Kehrman, WRES ED  
S. C. Kouba, WRES ED  
R. A. Salness, WRES ED  
D. Streng, WRES ED