



Department of Energy
 Carlsbad Field Office
 P. O. Box 3090
 Carlsbad, New Mexico 88221
 June 30, 2020



Mr. Kevin Pierard, Chief
 Hazardous Waste Bureau
 New Mexico Environment Department
 2905 Rodeo Park Drive East, Building 1
 Santa Fe, New Mexico 87505

Subject: Submittal of the Written Certification of Closure for Panels 1 and 2 at the Waste Isolation Pilot Plant, Hazardous Waste Facility Permit, Number NM4890139088-TSDF

Dear Mr. Pierard:

The purpose of this letter is to certify in writing that Underground Hazardous Waste Disposal Units known as Panels 1 and 2 have been closed as specified in Permit Attachment G, as required by Permit Part 6, Section 6.7 and Permit Attachment G, Section G-2a of the Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Number NM4890139088-TSDF.

The permittees are providing a certification signed by an independent New Mexico Registered Professional Engineer stating that the panels have been closed in accordance with the specifications in Permit Attachment G1. The certification and supporting documentation are enclosed.

We certify under penalty of law that this document and the attachments were prepared under our direction or supervision in accordance with 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 fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. Michael R. Brown at (575) 706-0072.

Sincerely,

Gregory Sosson
Digitally signed by Gregory Sosson
 DN: c=US, o=U.S. government, ou=Department of Energy, ou=Energy IT Services, ou=DOE Common Operating Environment, ou=People, cn=Gregory Sosson
 Date: 2020.06.30 09:57:44 -06'00'
 Gregory Sosson
 Acting Manager
 Carlsbad Field Office

SEAN DUNAGAN (Affiliate)
Digitally signed by SEAN DUNAGAN (Affiliate)
 Date: 2020.06.26 09:49:50 -06'00'
 Sean Dunagan
 President and Project Manager
 Nuclear Waste Partnership LLC

Enclosures (2)

cc: w/enclosures
 R. Maestas, NMED * ED
 CBFO M&RC

cc: w/enclosure 1
 D. Biswell, NMED * ED
 M. McLean, NMED ED
 K. McQueen, EPA ED
 *ED denotes electronic distribution



Enclosure 1

Independent Panel
Closure Certification

4 Pages



VALUE ADDED SOLUTIONS INC.
237 High Gate Loop Aiken, SC 29803
Phone: (803)644-0070
Fax: (803)644-0066

Submitted To: Mr. Jared Sorensen
Geotechnical & Mine Engineering Manager
Nuclear Waste Partnership LLC
P.O. Box 2078
Carlsbad, NM 88220

Subject: INDEPENDENT NEW MEXICO REGISTERED PROFESSIONAL ENGINEER
CERTIFICATION OF CLOSURE FOR PANELS 1 AND 2

Dear Mr. Sorensen:

1. Introduction

1.1. This letter is the independent New Mexico registered professional engineer's certification that the closures for Panels 1 and 2 were installed pursuant to the applicable requirements of the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (Permit), Permit Part 6, Section 6.10.1, *Panel Closure*; Permit Attachment G, *Closure Plan*; and Permit Attachment G1, *WIPP Panel Closure Design Descriptions and Specifications*. This certification is required by Permit Part 6, Section 6.7, *Certification of Closure*, and Permit Attachment G, Section G-2a, *Certification of Closure*.

1.2. The following documents were reviewed:

- A. Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Permit Number: NM4890139088-TSDF, dated April 21, 2020.
- B. Golder Associates Inc. 2016. Design Report, WIPP Panel Closure, Waste Isolation Pilot Plant (WIPP) Closure Project. October 28, 2016. 0632213 R1 Rev 1. Carlsbad, NM.
- C. Applicable Work Control Documents and Photographs (summarized in Table 2).

1.3. An independent underground bulkhead installation inspection was not performed due to ongoing implementation of COVID-19 precautionary measures at the WIPP facility, causing limited support for Radiation Worker II training needed for entry into the applicable closure areas. However, the bulkhead photographs and work package documentation provide adequate information to certify closure.



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2. Panel Closure Locations

2.1. The panel closures included in this certification are for Panels 1 and 2. The closures for these panels are installed at the following locations, shown in Table 1, pursuant to Permit Attachment G, Section G-1e(1).

Table 1 – Panel Closure Location Summary

Panel Description	Panel Closure Bulkhead Identification Number	Location Description
Panel 1 Intake	74-B-196	S1950/E300
Panel 1 Exhaust	74-B-195	S1600/E300
Panel 2 Intake	74-B-296	S2520/E300
Panel 2 Exhaust	74-B-295	S2180/E300

2.2. Pursuant to Permit Attachment G1, the WIPP Panel Closure (WPC) design for Panels 1 and 2 is WPC-A, which consists of using out-bye bulkheads in the panel intake and exhaust drifts.

Installation of the closures and field work was completed by WIPP facility personnel, as documented by the attachments summarized in Table 2, “Closure Documentation.”

Table 2 – Closure Documentation

Panel Description	Panel Closure Bulkhead Identification Number	Engineering Change Order Number	Implementation Work Document Number / Attachment Number	Photographs of Bulkhead Installation
Panel 1 Intake	74-B-196	14373	1919417 / Attachment 1	Attachment 5
Panel 1 Exhaust	74-B-195	14372	1919418 / Attachment 2	Attachment 6
Panel 2 Intake	74-B-296	14370	1919412 / Attachment 3	Attachment 7
Panel 2 Exhaust	74-B-295	14371	1919414 / Attachment 4	Attachment 8



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3. General Description of Certification Process

- 3.1. The construction of the closures was performed using the appropriate WIPP facility procedures and processes. The closures were designed by Golder Associates Inc. and installed by Nuclear Waste Partnership LLC. Applicable documentation and work packages are maintained according to WIPP facility procedures. Closure of these panels had previously been initiated with the construction of a 12-foot thick block and mortar explosion isolation wall.
- 3.2. Design: The design work was reviewed, approved and conducted by an independent New Mexico registered professional engineer. Appropriate quality assurance reviews were completed.
- 3.3. Construction: Materials used in construction received the proper quality assurance identification and receipt inspection through the site-established procurement process. Appropriate material controls were provided through the WIPP facility quality assurance and warehouse inventory control procedures.
- 3.4. As-built documentation: The installation was reviewed and compared with the design documents.

4. System Examination

- 4.1. An independent underground bulkhead installation inspection was not performed due to ongoing implementation of COVID-19 precautionary measures at the WIPP facility, causing limited support for Radiation Worker II training needed for entry into the applicable closure areas. The bulkhead photographs and work package documentation provide adequate information to certify closure. The work package documentation and photographs of bulkheads 74-B-196, 74-B-195, 74-B-296 and 74-B-295 were examined and determined to be fully intact, with the required design elements installed per design requirements.

4.2. Compliance

The closures for Panels 1 and 2 were placed east of the East Main (E-300) in S-1600, S-1950, S-2180, and S-2520 pursuant to Permit Attachment G, Section G-1e(1), *Panel Closure*. Panel closure design details provided as part of the Work Package Documentation were reviewed, and demonstrate alignment with the designs prescribed in Permit Attachment G1, *WIPP Panel Closure Design Description and Specifications*.



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5. Statement of Confirmation

Based upon reviews of the documentation associated with the closure of Panels 1 and 2, the installation of these panel closure bulkheads is in compliance with the applicable panel closure requirements of the Permit.

I hereby certify that this Independent Panel Closure Certification has been prepared by me for Nuclear Waste Partnership LLC, and that I am a duly registered Professional Engineer under the laws of the State of New Mexico.

 6/9/2020

Clark H. Fuhlage, P. E.
New Mexico License # 18597
Expiration Date, 12/31/2021

