



**Department of Energy**

Carlsbad Field Office  
P. O. Box 3090  
Carlsbad, New Mexico 88221

January 15, 2019

Mr. John E. Kieling, Chief  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6303

Subject: Notification of Planned Change to the Permitted Facility Regarding the New Fire Water Distribution System, Hazardous Waste Facility Permit, Number: NM4890139088-TSDF

Dear Mr. Kieling:

The purpose of this letter is to provide notification to the New Mexico Environment Department (NMED) of a planned change to the permitted facility in accordance with Permit Part 1, Section 1.7.11. (20.4.1.900 New Mexico Administrative Code incorporating Title 40 of the Code of Federal Regulations §270.30(l)). The U.S. Department of Energy and Nuclear Waste Partnership LLC, collectively referred to as the Permittees, intend to upgrade the WIPP facility by installing the New Fire Water Distribution System (FWDS). The drawings of the existing FWDS were provided in the Permittees' Part B Permit Application and is broadly described in Permit Part 2, Section 2.10.1.4., and Permit Attachment D, Table D-2 and Figure D-5.

The planned upgrade to the FWDS will be conducted in four phases:

- Phase 1 includes the installation of a new water service connection from the City of Carlsbad main water line, installation of two new fire-water tanks, construction of a new fire pump house, installation of new fire-water pumps, and construction of the north section of the new fire-water main outer loop. In addition, a portion of the Property Protection Area (PPA) security fence will be temporarily relocated to accommodate construction activities (i.e., allow initial construction activities to occur outside the PPA). The temporary fence will be constructed to meet the Permit requirements for security and posting in Permit Part 2, Section 2.6.
- Phase 2 includes the installation of piping to complete the fire-water main outer loop. In addition, a portion of the PPA security fence will be permanently moved to include the completed construction. The fence will be constructed to meet the Permit requirements for security and posting in Permit Part 2, Section 2.6.
- Phase 3 includes the installation of branch connections to various areas of the WIPP facility to provide service to individual buildings. After branch connections to the buildings are connected to the new pump house, obsolete fire-water equipment will be removed from the existing pump house (Building 456) and dispositioned. The existing pump house will then be used only for domestic water purposes.

- Phase 4 includes installation of a new communications network as well as installation of new fire alarm panels within the various buildings on site. This phase of the project may cause some disruption to the existing fire alarm panels; however, each fire alarm panel (and its associated appurtenances) will be fully tested to ensure its operability.

The Permittees will ensure compensatory measures are established when a disruption to the FWDS is necessary. At the end of each phase, the Permittees will test the equipment to assure the Permit requirements for flow and volume are met and then commission the new equipment. The enclosed document provides a conceptual drawing of the new FWDS.

The Permittees anticipate that the upgrade to the FWDS will start in calendar year 2019 and conclude in calendar year 2021 and that Permit modifications will be necessary to address the upgrade to the FWDS. Upon completion of each phase of the project, the Permittees will provide the NMED a letter with a New Mexico registered professional engineer's statement that the FWDS and associated appurtenances have been modified in compliance with the Permit and provide the NMED the opportunity to inspect the modified portion of the facility pursuant to Permit Part 1, Section 1.7.11.

We certify under penalty of law that this document and all attachments 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 fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. Michael R. Brown at (575) 234-7476.

Sincerely,

Signatures on file

Todd Shrader, Manager  
Carlsbad Field Office

Bruce C. Covert, Project Manager  
Nuclear Waste Partnership LLC

Enclosure

cc: w/enclosure

R. Maestas, NMED \* ED

D. Biswell, NMED ED

M. McLean, NMED ED

CBFO M&RC

\*ED denotes electronic distribution

New Fire Water Distribution System  
(Conceptual Drawing)



GENERAL NOTES


1. ALL PIPE TERMINATIONS TO OTHER PHASES SHALL BE FINISHED USING HDPE FUSED CAPS.
2. ALL VALVE TERMINATIONS TO OTHER PHASES SHALL BE FINISHED USING A TEMPORARY VALVE CAP. SEE 27-C-009-W2, DETAIL 7.
3. SEE 27-S-003-W1 FOR SECURITY AND CONSTRUCTION FENCE DETAILS.
4. PHASING BOUNDARIES SHOWN REPRESENT WORK LIMIT BOUNDARIES.

KEYED NOTES

- ① BUILDING 481 BRANCH CONNECTION AND SPRINKLER SYSTEM TIE IN, TO BE COMPLETED IN PHASE 2

PHASING LEGEND

- PHASE 1**  
NORTH LOOP  
LEG - EAST END  
WATER SUPPLY AND PUMPHOUSE
- PHASE 2**  
EAST LOOP LEG  
SOUTH LOOP LEG  
WEST LOOP LEG  
NORTH LOOP LEG - WEST END
- PHASE 3**  
BRANCH CONNECTIONS

2	RR-17284-002	DGA	AJW	SBV	02-08-18	02-08-18		
1	ECN-17074-002	DGA	Br	SBV	09-27-17	09-27-17		
0	RR-17074-006	SBV	JFF	SBV	08-25-17	08-25-17		
REV	ISSUE DESCRIPTION	DFTR DATE	CHKR DATE	COG DATE	DFTG DATE	DATE	ECN/DCN	WO
THIS DRAWING CREATED BY ENGINEERING CHANGE ORDER (ECO):							WFO:	
DFTG: SBV		U.S. DEPARTMENT OF ENERGY						
CHKR:		 <b>NWP</b>						
COG:		<b>Nuclear Waste Partnership LLC</b>						
CM:		A URS-led Partnership with B&W and AREVA						
DM:		Waste Isolation Pilot Plant Carlsbad, New Mexico						
PHASING CONSTRUCTION PLAN								
SCALE: 1"=50'		SIZE: SYS		DWG NO		REV		
INTERPRET DWG PER ANSI Y14		E XXXX		27-S-002-W1				
THIS DRAWING TAKEN FROM: N/A								
VENDOR: N/A								



THIS DRAWING IS UP-TO-DATE AND LATEST REVISION VERIFIED WITH THE FOLLOWING OUTSTANDING ENGINEERING CHANGE ORDERS:

SIGNATURE AND DATE: \_\_\_\_\_  
THIS DRAWING OBSOLETE FIVE DAYS FROM THIS DATE.

INDEX CODE NUMBER			
SYSTEM	WBE	DWG TYPE	CL VENDOR
XXXX	XX	XXXXX	XX 144

ISSUED FOR CONSTRUCTION