



**New Mexico Environment Department  
Response to Public Comments  
on the February 22, 2018 WIPP Draft Permit  
September 2018**

On November 10, 2016, the Department of Energy (“DOE”) and Nuclear Waste Partnership (“NWP”) (together referred to as the “Permittees”) submitted a revised Class 3 Permit Modification Request to the New Mexico Environment Department (“NMED”) requesting to modify the Resource Conservation and Recovery Act (“RCRA”) Hazardous Waste Facility Permit (“Permit”) for the Waste Isolation Pilot Plant (“WIPP” or “Facility”). Specifically, the revised Class 3 Permit Modification requested to make changes to the WIPP Panel Closure Plan. NMED published a public notice on February 22, 2018, starting a 60-day public comment period which ended on April 23, 2018. NMED took final agency action on September 7, 2018. This document is the NMED response to public comments received on this draft Permit, as required by 20.4.1.901.A(9) NMAC.

Table 1 of this document lists entities and persons who commented on the draft Permit.  
Table 2 summarizes the comments received and contains the NMED’s responses thereto.

The original comments submitted to NMED and other documents related to the final action can be found on the NMED WIPP webpage at the following link: <https://www.env.nm.gov/hazardous-waste/wipp/> .

**Table 1: List of Public Commenters**

| <b>Commenter ID</b> | <b>Date of Letter, Email, or Comment</b> | <b>Commenter (and Association, if Applicable)</b>                            |
|---------------------|--|--|
| A                   | 4/23/2018                                | Don Hancock, Southwest Research and Information Center (SRIC)                |
| B                   | 4/23/2018                                | Scott Kovac, Nuclear Watch New Mexico (NWNM)                                 |
| C                   | 4/23/2018                                | Joni Arends, Concerned Citizens for Nuclear Safety (CCNS)                    |
| D                   | 3/21/2018                                | Russell Hardy, Carlsbad Environmental Monitoring and Research Center (CEMRC) |
| E                   | 4/11/2018                                | Todd Shrader, DOE & Bruce C. Covert NWP (the Permittees)                     |
| F                   | 4/12/2018                                | Dale Janway, Mayor City of Carlsbad  |
| G                   | 4/20/2018                                | Dave Sepich, Carlsbad Mayor's Nuclear Task Force                             |
| H                   | 4/16/2018                                | John Heaton, Carlsbad Mayor's Nuclear Task Force                             |



**Table 2: Summaries of Public Comments and NMED Responses**

| Commenter ID | Topic Area | Public Comment   | NMED Response Number | NMED Response  |
|--------------|------------|--|----------------------|----------------|
| A            | Support    | The commenter states, "SRIC understands and supports the need for elimination for waste disposal in Panel 9 and to close off panels 3 through 6 because of underground contamination and inadequate ground control."   | R1                   | Comment noted. |
| D            |            | The commenter is in support of the Draft Permit. The commenter believes the Panel Closure changes have been put on hold for too long and the Draft Permit should be approved immediately. The commenter states, "...given the amount of time that has expired with respect to this proposed change and the amount of discussion that has already occurred regarding the proposed method for panel closure since 2013, I do not believe that a public hearing is needed on this subject." |                      |                |

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|--------------|---------------------------|--|----------------------|---------------|
| F            | (Continuation from above) | The commenter is in support of the Draft Permit. The commenter believes the Panel Closure has been delayed for too long and that extensive delay could present a risk to WIPP's employees. The commenter states, "...a concrete block explosion isolation wall and a concrete monolith, at each panel, is not practical and wastes millions of taxpayer dollars. The Department of Energy has long ago established that bulkheads (through Panels 1 and 9) and bulkheads and run-of-mine salt (at Panel 10) will safely and sufficiently allow for closure." |                      |               |
| G            |                           | The commenter is in support of the Draft Permit. The commenter believes the panel closure design provides a faster way to safely close the panels will providing an equally sufficient barrier as the original design.   |                      |               |

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|--------------|---------------------------|---|----------------------|---|
| H            | (Continuation from above) | <p>The commenter is in support of the Draft Permit. The commenter believes there is no need for a hearing because NMED has twice reviewed this topic as has the Environmental Protection Agency and, furthermore, members of the public have had numerous opportunities to comment and ask questions over the last six years. The commenter states, "WIPP has long ago proven that the monolith and explosion wall are expensive and not necessary...The monitoring results indicate that the initial WIPP planning was overly conservative and that explosion walls and robust panel closures would not be needed during the operational lifetime of WIPP." The commenter believes the new panel design will not increase risk to the workers and, in fact, the industrial safety risk will go down because the likelihood of accidents and equipment failures is proportional to the effort expended. The commenter states, "This proposed change has no significant effect when it comes to WIPP's long term isolation performance."</p> |                      |   |
| A            | Hearing Request           | <p>The commenter is requesting a Public Hearing and negotiations and believes some of the concerns and objections raised could be resolved and incorporated into a Revised Draft Permit.</p>  | R2                   | <p>Comments noted. Concerns have been addressed and hearing requests have been withdrawn.</p> |

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|--------------|---|---|----------------------|---|
| B            | (Continuation from above)                         | The commenter states, "...we request a public hearing on this WIPP Class 3 Permit Modification Request To Change The Panel Closure Design."   |                      |   |
| C            |   | The commenter states, "CCNS requests negotiations between NMED, the Permittees, and interested parties about the PMR and, if necessary, a public hearing about this important PMR."   |                      |   |
| A            | Fact Sheet Completeness and Adequacy of Submittal | The commenter believes the Fact Sheet does not address policy questions. The commenter also believes that the "...Permit Modification provide[s] an inadequate explanation of what is required for an adequate, consistent panel closure that protects worker and public health and the environment." | R3                   | There were no policy questions to document on the Fact Sheet. Please refer also to Responses: R10 <i>Closure Design Adequacy</i> ; R5 <i>EPA and Hazardous Waste Facility Permit (HWFP) Closure Consistency</i> ; and R8 <i>Comparison of Different Closure Designs</i> . |
| A            | Inclusion of EPA Final Rule                       | The commenter believes the Final Rule on Panel Closure Redesign must be included in the Administrative Record.  | R4                   | The US Environmental Protection Agency (EPA) Final Rule on Panel Closure Redesign (Federal Register, Vol. 79, No. 195, p. 60750-60756) is available for review online and not needed in the Administrative Record.  |

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|--------------|--|---|----------------------|---|
| A            | EPA and Hazardous Waste Facility Permit (HWFP) Closure Consistency | The commenter states, "The Draft Modification includes Run-of-Mine salt only as part of the closure of Panel 10, which is not consistent with what was proposed and approved by the EPA, nor consistent with what was required in the Panel 6 initial closure" as well as stating, "SRIC objects to having different closure systems..." The commenter further states, "The Permittees and NMED have not explained how the Panel Closure requested and allowed by the Draft Modification would adequately contain both radioactive and hazardous contaminants." | R5                   | The Permittees must demonstrate compliance to EPA and NMED requirements independently. Closure design requirements for the NMED Hazardous Waste Facility Permit must protect against volatile organic compounds (VOCs) and meet the environmental performance standards listed in the Permit regardless of whether they are compliant with the EPA's long-term disposal standards. The Permittees have demonstrated through modeling and monitoring data that the proposed closure is an adequate closure system in that bulkheads meet and exceed the performance standards in the Permit. Bulkheads with Run-of-Mine (ROM) Salt is an approved closure design by the EPA. Although bulkhead-only closures are adequate, due to public concern, ROM salt will be used for the closure of Panels 9 and 10. Please see final Permit language: Attachment G, Section G-1e(1) <i>Panel Closure</i> : "The Permittees shall use bulkheads as specified in Attachment G1 for the closure of filled panels. A run-of-mine (ROM) salt component will be included in the closure for Panel 9 and Panel 10. The substantial barrier in Figure G-4a will be installed in Panels 7 and 8." Please refer to Responses: R8 <i>Comparison of Different Closure Designs</i> and R10 <i>Closure Design Adequacy</i> . |

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|--------------|----------------------------|--|----------------------|---|
| A            | Extensions of Closure Time | The commenter states, "...the WIPP Permit has always recognized that Panel Closure takes longer than at other hazardous waste facilities because of the radioactive wastes that must be contained..." The commenter directs attention to Permit Attachment G-1d(3): "...the activities necessary to perform closure of the WIPP facility will require more than 180 days to complete because of additional stringent requirements for managing radioactive materials." | R6                   | Although this may be the case, conditions in the underground have changed and workers are now performing closures in a contaminated environment hence, due to ALARA concerns, it is advantageous to perform these closures in a timely manner. The ALARA definition is found in the Code of Federal Regulations (CFR) Title 10 CFR Part 835.2: "ALARA means 'As Low As is Reasonably Achievable', which is the approach to radiation protection to manage and control exposures (both individual and collective) to the work force and to the general public to as low as is reasonable, taking into account social, technical, economic, practical, and public policy considerations. As used in this part, ALARA is not a dose limit but a process which has the objective of attaining doses as far below the applicable limits of this part as is reasonably achievable." |

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| A            | Changing Explosion-Isolation Wall Definition | <p>The commenter opposes changing the definition of Explosion-Isolation Wall in Part 1.5.15 of the Permit "...because those existing walls also fulfill the purpose of the proposed steel bulkheads..." The commenter points out that the explosion-isolation walls also fulfill the purpose of the steel bulkheads which is described in Attachment G1, Section G1-2b(1) <i>Steel Bulkhead</i> of the Draft Permit: "...to close panels by blocking ventilation to the intake and exhaust access drifts of the panel and preventing personnel access." The commenter feels that if this new design (bulkheads only) is to be used, the Permittees or NMED should prove that explosion-isolation walls do not fulfill the same purpose as bulkheads and are not more protective of human health and the environment. "Neither the Permittees nor NMED have provided any evidence that those walls [explosion-isolation] do not fulfill that purpose, nor have they provided any evidence that the walls do not increase protection of human health and the environment compared with steel bulkheads only."</p> | R7                   | <p>The definition is being changed to specify which panels were closed using this closure system. The quote from the Draft Permit Part 1, Section 1.5.15. <i>Explosion-Isolation Wall</i> follows: "'Explosion-isolation wall' means the 12-foot wall intended as an explosion isolation device that has been constructed to initially close Panels 1,2, and 5 subsequent to the completion of waste emplacement." The Permittees are not stating that the block walls do not fulfill their intended purpose. They are clarifying in which panels the explosion isolation walls are installed. The bulkhead closure has been demonstrated to be adequate and there is no requirement to compare this closure to the original explosion-isolation walls. Please refer to Response: R9 <i>Substantial Barrier System</i></p> |



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|--------------|---|--|----------------------|--|
| A            | Comparison of Different Closure Designs | <p>The commenter would like a discussion of varying closure design options in this Draft Permit. The commenter objects to comparing only the present design to the original closure design. "In Panel 6, the initial closure was two barriers – the substantial barrier and bulkhead barrier – that include using chain link, brattice cloth, run-of-mine salt, and steel bulkhead. But for other closures, except Panel 10, the permittees and Draft Modification have only a steel bulkhead that is less robust, and less protective of worker and public health and safety. There is no adequate discussion of these varying designs other than that the permittees current proposal is deemed 'compliant' and less expensive."</p> | R8                   | <p>NMED has evaluated the proposed design and has found the bulkhead closure design meets the performance standards listed in the Permit. Bulkheads will be maintained in accessible areas as dictated by ground conditions to monitor bulkhead integrity. Please refer to Attachment G1, Section G1-2b(1) <i>Steel Bulkhead</i> of the Permit: "The steel bulkheads will be maintained for as long as they are accessible to workers. In this regard, accessible bulkheads will be repaired, renovated, or replaced as required. Permit Attachment E, Table E-1 provides the schedule for inspecting panel closure bulkheads." To address public concern, the Permittees will also install ROM salt as part of the closure for Panel 9 (in addition to Panel 10) and the substantial barriers will be installed in Panel 7 and Panel 8 (see new figure in Attachment G, Figure G-4a for the substantial barrier). Please see final Permit language: Attachment G, Section G-1e(1) <i>Panel Closure</i>: "The Permittees shall use bulkheads as specified in Attachment G1 for the closure of filled panels. A run-of-mine (ROM) salt component will be included in the closure for Panel 9 and Panel 10. The substantial barrier in Figure G-4a will be installed in Panels 7 and 8."</p> |

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| A            | Substantial Barrier System | The commenter believes that the substantial barrier system found in Panel 6 has been previously approved by the EPA and believes bulkhead-only closures are less protective to human health and the environment. | R9                   | Pursuant to Permit Attachment N1, the substantial barrier was not a formal part of the closure system. These were installed in Panels 3, 4, and 6 per a Documented Safety Analysis (DSA) requirement for hydrogen-methane monitoring purposes in panels where block walls were not installed. This was completed to ensure the stability of the waste stack, to further reduce airflow, and to prevent access to the panels. These barriers were included in the Permit in Attachment N1, Figure N1-2 for completeness but were never intended to be considered a formal part of the closure system. Note that hydrogen-methane monitoring is being removed as a Permit requirement because the data collected from Panels 3 and 4 between 2007 and early 2014 has shown that an explosive atmosphere is not likely to develop during the operational phase of the facility, and a review of data on waste inventory indicates that the expected gas generation rates will not significantly change since the waste expected to be received is similar to waste currently emplaced. Please refer to Response: R8 <i>Comparison of Different Closure Design</i> |

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|--------------|-------------------------|--|----------------------|--|
| A            | Closure Design Adequacy | The commenter quotes the Permit Attachment G, Section G-1e(1), "Although the permit application proposed several panel closure design options, depending on the gas generated by the wastes and the age of the mined openings, the NMED and EPA determined that only the most robust design option (D) would be approved." | R10                  | The immediate continuation of this quote from the Permit is, "This decision does not prevent the Permittees from continuing to collect data on the behavior of the wastes and mined openings, or proposing a modification to the Closure Plan in the future, using the available data on the behavior to support a request for reconsideration of one or more of the original design options. If a design different from Option D as defined in Permit Attachment G1 is proposed, the appropriate permit modification will be sought." Although bulkhead-only closures were not an original design option, available data has demonstrated this to be adequate for meeting the performance standards in the Permit, thereby protecting human health and the environment. Furthermore, the EPA Final Rule (Federal Register, Vol. 79, No. 195, Section III, p. 60754) states, "It is possible that adjustments will be made to the design, as a result of either NMED's evaluation of the panel closures' ability to protect workers and the public from hazardous waste during facility operation, or as part of DOE's plan to reopen the repository. This rule change both approves a design that can be installed quickly if it is needed, and gives EPA the ability to efficiently evaluate any future changes to that design based on their impacts to long-term repository performance." Please refer to Response: R8 <i>Comparison of Different Closure Design</i> |
| B            |                         | The commenter believes the proposed closure system is less robust, the bulkheads are not a barrier to an explosive release, and technical analyses of all alternatives have not been completed.  |                      |  |

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|--------------|-----------------------------------|--|----------------------|---|
| C            | (Continuation from above)         | The commenter states, "The proposed panel closure of a single bulkhead is not adequate;..."  |                      |   |
| A            |                                   | The commenter states that panel bulkheads were inadequate to contain hazardous chemicals and radiological contaminants during the February 14, 2014 event. The commenter believes the contamination in the Panel 9 area demonstrates that the bulkhead and ventilation systems did not serve to contain contamination and direct flow along the exhaust shaft pathway. |                      | During the February 14, 2014 release, the ventilation system was in alternate mode with reduced air flow and reduced differential pressure, as there were no workers in the underground at the time. Panel 7 was the active panel for waste emplacement. The bulkhead ventilation louvers were in the open position in Room 7 of Panel 7 to maintain airflow at the workers' backs while waste was being emplaced. The reduction in airflow and differential pressure allowed particulates to migrate to areas outside the exhaust pathway and accounts for the contamination in Panel 7 and Panel 9 areas. |
| A            | Potential Waste Stream Discussion | The commenter references several reports on potential waste streams being considered for disposal at WIPP.   | R11                  | References to potential future waste streams being considered for WIPP do not pertain to this Draft Permit. A Class 2 permit modification request titled <i>Modification to Remove Excluded Waste Prohibition</i> was submitted to NMED on April 8, 2013 and was elevated by NMED to a Class 3 on July 2, 2013. The permit modification request to Remove Excluded Waste Prohibition will address this specific issue. The Permittees may submit permit modification requests in the future to address any proposed changes.  |

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| A            | Status of Waste Emplacement in Panels 9 & 10 | The commenter believes several statements in the Draft Permit as well as existing language in the Permit regarding the waste emplacement status of Panels 9 and 10 are contradictory. The commenter references the current Permit in Attachment A2-1 which states, "The Permittees may also request in the future a Permit to allow disposal of containers of TRU mixed waste in the areas designated as Panels 9 and 10 in Figure A2-1." The commenter further references the Draft Permit in Attachment G, p. G-1: "In addition, this Closure Plan includes Panels 9 and 10 which are the main north-south entries in the underground, a portion of which may be used for waste disposal." The commenter then quotes the Draft Permit in Attachment G, Section G-1c Maximum Waste Inventory, "Note that panels 9 and 10 are not authorized for waste emplacement..." | R12                  | In the current Permit, panels 1 through 8 are authorized for TRU mixed waste disposal. Disposal in Panel 9 and Panel 10 is not currently authorized. To address public concern, note that Panel 9 will not be used for TRU mixed waste disposal if the option to close Panels 3, 4, 5, and 6 simultaneously with closures in the north-south mains is selected. Please see final Permit language: Attachment G, Section G-1e(1) <i>Panel Closure</i> : "Alternatively, panels may be closed simultaneously by placing panel closures in the north-south mains (E-300, E-140, W-30, and W-170), as shown in Figure G-1. If this alternative is used to close Panels 3, 4, 5, and 6, then Panel 9 will not be used for TRU mixed waste disposal." Please also see final Permit language: Attachment G, Section G-1e(1) <i>Panel Closure</i> : "The Permittees shall us bulkheads as specified in Attachment G1 for the closure of filled panels. A run-of-mine (ROM) salt component will be included in the closure for Panel 9 and Panel 10..." Also please note, due to public concern about waste emplacement in Panel 9, Attachment G's <i>Introduction</i> has been revised to include: "In addition, this Closure Plan includes closures for Panels 9 and 10." |
| B            |  | The commenter states, "The proposed Panel Closure PMR cannot stand alone without consideration of the replacement of Panels 9 & 10."   |                      |  |
| C            |  | The commenter states, "NMED has not explicitly prohibited waste emplacements in Panels 9 and 10."  |                      |  |

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|--------------|-------------------------|---|----------------------|---|
| A            | VOC Point of Compliance | The commenter states that the VOC point of compliance at “the location of the nearest downwind resident” is a new location and is not protective of human health and the environment. The commenter further states, “Much of the proposed Panel Closure will be done during WIPP operations when there are hundreds of workers and, at some times, numerous members of the public at the site.” | R13                  | Health-based levels are not impacted by location. VOC risk evaluation is based on chronic exposure and not acute risk to infrequent members of the public on the WIPP site. Risk to the non-waste surface worker is measured at the training building at a risk factor of 10 <sup>-5</sup> and is an order of magnitude higher than the risk at the WIPP site boundary of 10 <sup>-6</sup> . Therefore, further dispersion in air between the point at the training building (VOC Monitoring Station-C) and the nearest permanent resident and/or the WIPP site boundary is an order of magnitude greater. If compliance is established at the training building, then compliance will be met at the WIPP site boundary. Furthermore, if VOC concentrations in the underground reach acute levels, they must be mitigated for workers underground. Therefore, there is minimal risk that VOCs will reach acute levels at the surface and be a danger to the public due to mitigation efforts by the Permittees. Please see final Permit language in Part 6, Section 6.10.1 <i>Panel Closure</i> which, due to public concern, replaces proposed "nearest permanent downwind resident" with "nearest resident beyond the WIPP site boundary": “The Permittees shall close each Underground HWDU in a manner that meets the closure standard for volatile organic compounds in Table 6.10.1, which represent health based levels (HBLs) at the location of the nearest resident beyond the WIPP site boundary.” |
| C            |                         | The commenter states that NMED is changing the point of compliance for Panel Closure standards.   |                      |   |

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|--------------|-------------------------------------|--|----------------------|---|
| A            | Synergistic Effects of Contaminants | The commenter notes that the synergistic effects of multiple compounds should be studied, specifically the combined effects of VOCs and radionuclides. | R14                  | An evaluation on different waste streams was performed and reported in the Design Report for the 2013 permit modification request. Modeling was performed to evaluate the weighted headspace gas concentration for carcinogenic and non-carcinogenic compounds. There are Permit limits for various VOCs and the Permittees are required to monitor for these. However, if new compounds are detected, there are procedures in place to ensure that these will be added to the constituent list for monitoring. The VOC and radiological monitoring programs are independent of each other. Radiological contaminants are not specifically regulated in RCRA Permits. The reference to Title 10 CFR Part 835 [DOE's Occupational Radiation Protection Program] has been added to Attachment G as footnotes 1 and 3 in place of previous Permit language related to specific radiological information such as the free release limits. |

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| A            | VOC Monitoring | The commenter states, "SRIC believes that the single bulkhead system does not adequately protect worker and human health and the environment, so ongoing VOC monitoring is required. There currently is no evidence that VOC migration will be eliminated by the single bulkhead." | R15                  | The purpose for VOC monitoring is for the safety of workers in active waste emplacement panels. Monitoring of VOCs in Panels 7 and 8 will continue until these panels are closed. Once a panel has been closed, there are no longer workers in the closed panel therefore room based VOC monitoring is not required. Once panels have been closed, access is restricted. However, if ground control issues arise in areas near a panel closure, MSHA requirements are implemented and real-time monitoring of the air occurs. Occupational monitoring of air quality ensures worker safety by implementing contingency procedures when action levels are reached. Attachment H, Section H-1 <i>Post-Closure Plan</i> of the Permit states, "The Permittees have defined a post-closure care program for closed panels that has three aspects. These are routine inspection of the openings in the vicinity of the closures, the sampling of ventilation air for harmful constituents, and a Repository Volatile Organic Compound Monitoring Program...These monitoring programs will be carried out during the period between the closure of the first panel and the initiation of final facility closure for the underground facility." Please also see the RCRA Contingency Plan in Attachment D, Section D-4c, <i>Assessment of the Potential Hazards</i> . |



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| B            | (Continuation from above)                      | The commenter states, "DOE plans to change many requirements of the existing underground VOC monitoring system, including eliminating all monitoring of some VOCs, eliminating all monitoring for emissions from closed rooms in an active panel, reducing the frequency of monitoring of all VOCs, and reporting information on VOCs only once a year." |                      |  |
| C            |  | The commenter states, "Volatile Organic Compound (VOC) monitoring requirements and Panels 3 to 8 have been eliminated;...".  |                      |  |
| A            | "Start-Clean, Stay-Clean" Operating Philosophy | The commenter is opposed to removing references to the "Start-Clean, Stay-Clean" philosophy in Attachment G.   | R16                  | To address public concern, NMED is retaining this language in the Permit.  |
| A            | Opposition to New Attachment G-1               | The commenter is opposed to the entire new Attachment G-1.   | R17                  | Comment noted.   |
| A            | Radiological Protection Limits                 | The commenter is opposed to new language in Attachment G, G-1a(1) <i>Container Storage Units</i> replacing "free release limits" (and its footnote) with "DOE-established radiological protection limits".   | R18                  | The regulation of radiological protection requirements at WIPP is outside the scope of RCRA. For completeness, the reference to Title 10 CFR Part 835 has been added in Attachment G as footnotes 1 and 3. Please note, for clarification, the word "tested" has been replaced by "sampled" in this sub-section. Please refer to Response R14. |

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| A            | Gas Deflagration/<br>Thermal Runaway   | The commenter opposes the deletion in Attachment G, Section G-1a(2) <i>Miscellaneous Unit</i> , "and to withstand any flammable gas deflagration that may occur prior to final facility closure." The commenter also states, "SRIC opposes the new language on page G-9, Attachment G-1e(1): 'thermal runaway involving nitrate salt bearing waste' because it is not adequately defined. The Permittees' analysis in the Modification Request is not stringent enough, as a more severe release could occur." | R19                  | Based on data collected from hydrogen-methane monitoring in Panels 3 and 4, it has been demonstrated that an explosive atmosphere is not likely to develop during the operational phase of the facility and, therefore, the need to design a closure to address deflagration is no longer pertinent. Current modeling was performed by Golder Associates to ensure the panel closure system will perform its intended function under the conditions of a postulated thermal runaway involving nitrate salt bearing waste (please see the Design Report in the reference section of Attachment G). For completeness and to help define a "thermal runaway", the reference to the Golder 2016 report has been added to Permit Attachment G, Section G-1e(1) <i>Panel Closure</i> . Please refer to Response: R9 <i>Substantial Barrier System</i> |
| A            | Editorial Issues                       | The commenter opposes deleting the word "all" in five places in Attachment G, Section G-1d(3) <i>Extension for Closure Time</i> .  | R20                  | To address public concern, the five instances of the word "all" are being retained in this section.   |
| A            | Definition of North-South Mains        | The commenter believes the term "north-south mains" has not been defined in the Draft Permit in Attachment G, Section G-1e(1) <i>Panel Closure</i> .   | R21                  | To clarify, the term "north-south mains" is defined within parentheses in Attachment G, Section G-1e(1), <i>Panel Closure</i> : "Alternatively, panels may be closed simultaneously by placing panel closures in the north-south mains (E-300, E-140, W-30, and W-170), as shown in Figure G-1."  |
| A            | Closure Performance (i.e. Cancer Risk) | The commenter opposes deleting language in Attachment G, specifically the first bullet of Section G-1e(1) <i>Panel Closure</i> .   | R22                  | Please refer to Response: R13 <i>VOC Compliance Point</i>   |

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| A            | Ground Control Issues | The commenter opposes the proposed language on page G-9, Attachment G-1e(1) related to deleting "most severe" and replacing with "expected" conditions. Much of the Panel Closure will occur during the operational phase so Panel Closure must protect workers and members of the public on-site. Moreover, actual ground control problems, including roof falls, demonstrate that the Permittees do not adequately understand and predict when "expected" events will occur. | R23                  | The commenter is referencing Permit Attachment G, Section G-1e(1) <i>Panel Closure</i> , specifically the 7th bullet: "the panel closure system shall address the most severe ground conditions expected in the waste disposal area." The Permit language has been revised to replace "most severe" to the word "expected". It is no longer necessary after years of experience with ground conditions to make assumptions regarding where panel closures should occur. Actual ground conditions based on inspections are being considered to decide where closures will be placed. |

| Commenter ID | Topic Area                     | Public Comment   | NMED Response Number | NMED Response  |
|--------------|--------------------------------|--|----------------------|--|
| A            | Decontamination Determinations | The commenter opposes the new language on page G-11, Attachment G-1e(2) that deletes the VOC sampling requirement for decontamination determinations. The commenter states that such a deletion is inappropriate and reduces protection for workers and human health and the environment and that it is inconsistent with many of provisions of the Draft Permit that do include radioactive constituent requirements. | R24                  | The commenter is referring to the removal of the phrase "and hazardous constituent" (displayed in red strike-out) from the following sentence in Permit Attachment G, Section G-1e, <i>Decontamination and Decommissioning</i> : "Decontamination or fixing determinations are based upon radiological [ <del>and hazardous constituent</del> ] surveys." This phrase is being removed because this paragraph specifically refers to radiological surveys. The requirements for hazardous constituent surveys (RCRA sampling) are not being removed from the Permit. Under the same section (Section G-1e) under the sub-heading <i>Health and Safety</i> , this is addressed: "Before final closure activities begin, radiation protection personnel will conduct a hazards survey of the unit(s) being closed. A release of radionuclides could also indicate a release of hazardous constituents. If radionuclides are not detected, sampling for hazardous constituents will still be performed if there is documentation or visible evidence that a spill or release has occurred. The purpose of the hazards survey will be to identify potential contamination concerns that may present hazards to workers during the closure activities and to specify any control measures necessary to reduce worker risk." |
| A            | Classification of Waste        | The commenter states, "SRIC opposes the changed language on p. G-13 to delete "will" and change to "may" regarding how mixed and radioactive waste are classified. There is no basis for the change, since throughout the Permit, mixed and radioactive waste are classified and managed as TRU mixed waste."  | R25                  | Permit Attachment G, Section G-1e(3)(b) <i>Decontamination Activities</i> , has been revised for clarification and now states, "Mixed and radioactive waste, classified as TRU mixed waste, will be managed in accordance with the applicable Permit requirements."  |

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|--------------|---|--|----------------------|--|
| A            | Soil Surveys  | The commenter states, "SRIC opposes the changed language on p. G-14 that eliminates the need for soil surveys when an event occurs. The new language is not protective of human health and the environment and likely would not have required soil surveys after the February 14, 2014 radiation release." | R26                  | The Permit has provisions in place to implement soil surveys if such an event occurs. Due to public concern, the phrase "of hazardous waste" is being deleted from Permit Attachment G, Section G-1e(b) <i>Decontamination Activities</i> under the sub-section <i>Surface Container Storage Units</i> : "An evaluation of the soils in the vicinity of the WHB will only be necessary if an event resulting in a release has occurred outside the WHB." Please note, for clarity, also in Attachment G, Section G-1e(3)(b) <i>Decontamination Activities</i> , under the sub-section <i>Cleanup Criteria</i> , the word "Order" has been removed.   |
| A            | Action Levels in Standard Operating Procedures (SOPs) | The commenter opposes deleting the reference to Attachment D, the Contingency Plan, regarding of the action levels for increasing ventilation to areas that show high levels of harmful gases.   | R27                  | Permit Section H-1 Post-Closure Plan, is referring to SOPs rather than keeping a reference to Attachment D that was an artifact left in after Section H-1 was updated in the 2010 Permit renewal. In Permit Attachment D, Section D-4e, <i>Control and Containment of the Emergency</i> , it states: "The RCRA Emergency Coordinator is required to ensure control of an emergency and to minimize the potential for the occurrence, recurrence, or spread of releases due to the emergency situation, as described in 20.4.1.500 NMAC (incorporating 40 CFR §264.56 (e) and (f)). Standard operating procedures and guides are used to implement initial response measures with priority being control of the emergency, and those actions necessary to ensure confinement and containment in the early, critical stages of a spill or leak..." |
| A            | Pagination Issue                                      | The commenter observes that Attachment D of the Draft Permit contains 48 pages but each page says "page _ of 46".  | R28                  | NMED appreciates the thorough review and has made this editorial change.   |
| A            | Cost Savings  | The commenter believes any cost saving estimates are unreliable and should not be given credence.  | R29                  | Cost estimates are not the scope of RCRA and are not considered as part of NMED's evaluation.  |

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|--------------|------------------------------|--|----------------------|---|
| B            | (Continuation from above)    | The commenter states, "Cost savings were given for the PMR, but no actual cost saving amounts were given. If savings were claimed, the amounts must be given."   |                      |   |
| B            | Group Multiple PMRs Together | The commenter believes DOE must submit a large Class 3 PMR rather than submitting several individual PMRs.   | R30                  | In accordance with RCRA regulations, NMED can only review proposed modifications as they are submitted and received. NMED may approve, approve with changes, deny, or elevate a permit modification request. NMED does not determine which and how modifications are submitted by the Permittees. |
| B            | Waste Volume Capacity        | The commenter believes the Fact Sheet implies repository reconfiguration. "Apparently, the panels might hold more waste than the originally proposed Panels 9 and 10. This therefore could effectively increase the amount of waste that could be shipped and disposed of at WIPP."  | R31                  | Please refer to Response: R12 <i>Status of Waste Emplacement in Panels 9 and 10</i>   |
| B            | Protection of Workers/Public | The commenter believes that the bulkhead closure design puts workers at risk for VOC emissions. The commenter states, "DOE should demonstrate that using bulkheads allows no more VOC releases than explosion/isolation walls and the new Panel Closure System (PCS) should include the measures that most limit VOC emissions." | R32                  | Please refer to Responses: R6 <i>Extension of Closure Time</i> , R10 <i>Closure Design Adequacy</i> , R13 <i>VOC Compliance Point</i> , and R15 <i>VOC Monitoring</i>   |

| Committer ID | Topic Area             | Public Comment   | NMED Response Number | NMED Response  |
|--------------|------------------------|--|----------------------|--|
| B            | Rationale for PMR      | The commenter states, "Page 8 of the PMR states: The current conditions in the WIPP underground have four critical areas that potentially affect panel closure... These conditions have necessitated a revised panel closure design that provides the needed protection to human health and the environment while minimizing activities that would resuspend radiological contamination, create excessive amounts of dust, or require workers to spend long periods of time in areas requiring extensive personal protective equipment." | R33                  | NMED concurs with the necessity of a revised panel closure design. Please refer to Response: R3 <i>Fact Sheet Completeness/Adequacy of Submittal</i> |
| E            | Incorporation of Edits | The commenters (the Permittees) would like the following editorial changes incorporated into the Draft Permit: 1) in Attachment B, p. B-27, a parenthesis after the title "Appendix B2" needs to be added; 2) In new Attachment G1, p. G1-7, "Summary of Work" should not be bolded; 3) in new Attachment G1-A, the footer starting on page 1 should be "G1A" not "G1B"; 4) in new Attachment G1-A, Section 1.3, the acronym "Limit Liability Corporation" should be revised to "Limited Liability Company".                             | R34                  | The recommended edits have been reviewed and incorporated.   |