

ENTERED

AUG - 8 2016



August 8, 2016

Ricardo Maestas  
New Mexico Environment Department  
2905 Rodeo Park Drive, Building 1  
Santa Fe, NM 87505

Via email to ricardo.maestas@state.nm.us

RE: WIPP Class 2 Permit Modification Request

Dear Mr. Maestas,

Nuclear Watch New Mexico respectfully submits these comments on the Class 2 permit modification request package that was submitted on June 3, 2016, according to the public notice.

NukeWatch appreciates that a draft of the proposed request was provided and that representatives of the permittees as well as the New Mexico Environment Department (NMED) met with citizen groups on March 7, 2016. NukeWatch continues to believe that such pre-submittal meetings are useful and supports continuing that practice in the future.

However, NukeWatch remains concerned that neither DOE nor NMED have held any pre-submittal type meetings during the past two years to discuss what permit modifications are necessary to protect human health and the environment in order for WIPP to re-open. As a result, the WIPP permit is not adequate to protect human health and the environment, as required by the New Mexico Hazardous Waste Act (HWA) and the Resource Conservation and Recovery Act (RCRA).

- WIPP cannot be allowed to re-open until substantial revisions are made in the Permit, which can best be done through informal meetings in advance and then formal class 3 permit modification procedures.

The WIPP underground is a significantly contaminated facility, including the Panel 7 hazardous waste disposal unit that cannot meet the "start clean, stay clean" DOE operating philosophy and the WIPP Permit requirements. In addition, the permittees admit that there are 683 containers in the WIPP underground with Hazardous Waste Numbers D001 and D002 that are not allowed by the permit. The



Notice also states that there were 148 Uniform Waste Manifests that were inaccurate and had to be corrected.

The fact that there are 683 containers with prohibited items and 148 incorrect Uniform Waste Manifests demonstrates that there are many deficiencies in the Permit.

- If the permittees or NMED believe that none of those Permit provisions are inadequate, they should so state and identify the basis for such determination. NMED should have made such a determination in its five-year review, required by Permit section 1.3.3.
- Until there is a revised permit to address those and other deficiencies, WIPP should not be allowed to re-open. NMED should notice the permittees that they are not allowed to re-open the facility until a significantly revised permit is provided for public comment and is approved by NMED.

### **Denial of permit modification request Item 2**

Pursuant to 20 NMAC 4.1.900 (incorporating 40 CFR 270.42(b)(6)(i)(B)) and its historic practices, NMED may deny class 2 modification requests.

- We strongly believe that Item 2 must be denied because reducing ventilation requirements in an active room would reduce protection of human health and the environment.

### **Item 2 - Active Room Ventilation Flow Rate**

The request would effectively eliminate the requirement of Permit section 4.5.3.2: The Permittees shall maintain a minimum active room ventilation rate of 35,000 standard ft<sup>3</sup>/min (scfm) in each active room when waste disposal is taking place and workers are present in the room, as specified in Permit Attachment A2, Section A2-2a(3), "Subsurface Structures (Underground Ventilation System Description)," and as required by 20.4.1.500 NMAC (incorporating 40 CFR §264.601(c)).

On page 6 of the request, the permittees state: "It has been determined that it is not possible to achieve 35,000 scfm (42,000 acfm) in an active waste disposal room while operating in filtration mode with 60,000 scfm (72,000 acfm)." Thus, they propose to modify the requirement to allow "other measures."

It is unsafe to allow waste handling in a significantly contaminated underground mine without adequate ventilation.

- Until there is adequate ventilation throughout the underground, including active rooms, waste handling should not be allowed.

The permittees' further justification is that "[t]his modification is providing an equivalent level of protection for VOCs that result from a roof fall event in an adjacent filled room." P. 4. The hypothetical roof fall scenario is not a sufficient basis for the request. The February 14, 2014 event shows that a release in an active room from a chemical reaction is possible under the existing permit requirements.

- The permittees (and NMED) must evaluate the effects of a similar (or larger) incident in an active room and the adjacent room to determine what ventilation rates are required. Such an analysis has not been included in the modification request, so the permittees have not provided an adequate basis to support the proposed change.

The permittees' assert: "The roof collapse scenario that was analyzed by Sandia National Laboratories assumed 21 drums could be breached; therefore, this assessment bounds the one drum thermal runaway event." That assertion has, in fact, not been demonstrated with actual analysis, including drums containing prohibited items or prohibited Hazardous Waste Numbers.

- The permittees (and NMED) must consider that additional containers could be emplaced at WIPP and analyze the effects of chemical reaction releases.
- Moreover, the Sandia analysis cannot be relied upon because it is from 1980 and has not been revised to reflect actual conditions in the WIPP underground or with the range of wastes that are emplaced at WIPP, including shielded containers.

The permittees also state: "[t]his modification also allows the Permittees to continue waste disposal operations during offnormal conditions, and maintenance activities." P. 6. Thus, the permittees seek to elevate waste emplacement to be an equivalent value as having adequate ventilation. The purpose of the existing Permit requirement for 35,000 scfm is to prevent waste handling operations when that level of ventilation is not present. The purpose and effect is to protect workers, as well as public health and the environment. Thus, waste handling is allowed when that ventilation rate (and other requirements) are met, but is otherwise prohibited until that ventilation flow is achieved. That priority for safety over waste handling is necessary and proper under the HWA and its regulations. The purpose of the modification request is to allow waste handling, despite not meeting the ventilation requirement, effectively saying that waste emplacement is an equivalent or higher value than safe ventilation levels. NMED must reject such equivalency.

- The permittees have provided no legal or regulatory rationale for such a waste handling value, nor should any such standard be allowed.

Artificially tying allowed VOC levels to ventilation rates is a dangerous and faulty logic. It is unsafe to allow waste handling in a significantly contaminated underground mine without adequate ventilation. Less ventilation is never protective.

- Until there is adequate ventilation throughout the underground, including active rooms, waste handling should not be allowed.
- The ventilation rates must be tied to Oxygen, CO, CO2, and other atmospheric gas rates.
- There must be a short time limit that is allowed for operations under-35,000 scfm.

- There must be limited areas where less-than 35,000 scfm applies. For instance, the distance to escape to safety must be considered for operations under-35,000 scfm.

By the permittees own plans and policies, meeting the 35,000 scfm requirement is necessary and achievable. The WIPP Recovery Plan of September 30, 2014 states that at least 180,000 scfm is “required for commencement of waste emplacement operations.” P. 19. With that level of ventilation, 35,000 scfm can be maintained in the active room. That Recovery Plan has not been revised and is still posted as the recovery plan in effect for WIPP, so NMED and the public should be able to rely on that Plan.

- The modification request does not mention that 180,000 scfm requirement, nor explain why it should not and cannot be implemented. Thus, the request does not explain why the request is needed and must do so specifically.

20.4.1.900 NMAC (incorporating 40 CFR 270.42(b)(1)(iii)) requires that the request explain why the modification is needed. But since there is no need to not meet the ventilation flow requirement, the request must be denied. The purported need is actually one of convenience for the permittees – so that they can conduct waste handling when they consider it proper, rather than having to meet specific, enforceable permit requirements.

- If this PMR is needed for the convenience of the permittees, please so state.

The permittees also propose to modify Permit section 4.6.3.3 Remedial Action by adding an additional sentence: “Alternatively, prior to reaching these action levels, the Permittees may propose an alternative remedial action plan to the Secretary. The Permittees may implement such plans in lieu of closing and abandoning the active room only after approval by the Secretary.”

- Please give examples of alternative remedial actions and when they might be used.

The proposed additional language would allow the permittees to continue to conduct waste handling in the open room, despite reaching the “95% Action Level.” Such action is not protective of public health and the environment and again makes waste handling equivalent to worker and public health and safety. There is not any adequate basis for allowing continued waste handling in a room with such concentrations, particularly since workers in active rooms in panel 7 are now exposed to chronic exposures of americium-241 and plutonium-239 in the contaminated rooms in addition to the VOC exposures. The effects of such cumulative exposures were not considered in establishing the limits in Tables 4.4.1 and 4.6.3.2.

- The Action Levels must be shown to be protective in the existing circumstances.

The permittees describe two “factors” as to why the change is needed – exert control over employees and remediation by requiring personal protective equipment (PPE)

or additional monitoring. P. 7. Those “factors” do not explain why the modification is needed, instead they describe the convenience of the permittees – not protection of public health and the environment. The permittees can and must always exert control over employees and require PPE or conduct additional monitoring.

- The request must be denied because no need has been shown.

### **Request for a Class 3 PMR**

It appears that this Class 2 PMR is a required change to operate WIPP due to the inability to achieve 35,000 scfm in active waste disposal rooms. This PMR is so important, and must be approved, so that the facility can continue to operate. As it stands now, there are only 2 choices – either approve this Class 2 PMR or shut down operations until 35,000 scfm can be reached.

- As such it should be considered a “major modification” and subject to Class 3 PMR requirements.

### **Changes to permit modification request Item 1**

The permittees propose many changes to the Contingency Plan. We do not object to many of the proposed changes. We do support changes such that the Plan is consistent with the requirements of 20.4.1.500 NMAC (incorporating 40 CFR Subpart D) and more adequately reflects the significant underground contamination at WIPP.

The regulations at 20.4.1.500 NMAC (incorporating 40 FR 264.52(e)) require that the Contingency Plan “must include a list of all emergency equipment at the facility....” Contrary to that requirement, the request states that it “remove[s] certain emergency equipment that is ... only required for radiological emergency response....” P. 4. Radiological emergency response equipment is required at WIPP and it must be included in the list.

- Radiation Monitoring Equipment, Decon Shower Equipment, HEPA vacuums, and Paint or Fixitive must remain listed, not eliminated in proposed Table D-2. Pages 24 and B-81.

Proposed Figure D-4 (p. B-99) does not reflect the significant underground contamination and must be changed.

- NMED should reject the proposed figure and require the permittees to submit a new figure.

All of E-300 north of S-2180 to the exhaust shaft is a highly contaminated drift that is designated as an Airborne Radiation Area. See Attachment 1. People underground should not be in the drift without PPE and respirators.

- That drift should not be designated “secondary escapeway.” Instead, it should be designated as “extreme emergency escapeway” that is designated for use only when drifts E-140, W-30, and W-170 cannot be used.

Drift W-170 between S-2180 and S-1950 also is highly contaminated and is designated as an Airborne Radiation Area. See Attachment 1. People underground should not be in the drift without PPE and respirators.

- That drift should not be designated “secondary escapeway.” Instead, it should be designated as “extreme emergency escapeway” that is designated for use only when drifts E-140 and W-30 cannot be used. Drift W-170 could be the closest evacuation route for workers in Panel 7, which raises concerns about waste handling in that panel and whether all workers in that panel should always be in PPE and respirators.

Further, drift S-2180 is highly contaminated and is designated as an Airborne Radiation Area. See Attachment 1. People underground should not be in the drift without PPE and respirators.

- That drift should not be designated “secondary escapeway.” Instead, it should be designated as “extreme emergency escapeway” that is designated for use only when S-2520 cannot be used. NukeWatch does not support any waste emplacement in that drift because of the high contamination levels. The fact that workers in Panel 7 have no adequate secondary escapeway raises significant concerns as to whether Panel 7 should be used for further waste emplacement.

NukeWatch does not understand why a “primary escapeway” is shown in Panel 6 and S-3650 and “secondary escapeway” is shown in S-3080 and S-3110. All of those areas are contaminated and are designated as Contaminated Areas requiring PPE. See Attachment 1. While ground control and monitoring activity may be required in those areas, similar activities are required in panels 2, 3, and 4 where no escapeways are shown.

- No one should be in the contaminated areas except with proper training, monitoring equipment, and PPE. Thus, all of those contaminated areas should be designated in ways that recognize the significant contamination.

Thank you very much for your careful consideration of these and all other comments. We look forward to your response.

Sincerely,

Scott Kovac  
Operations and Research Director  
Nuclear Watch New Mexico