

**STATE OF NEW MEXICO
BEFORE THE SECRETARY OF ENVIRONMENT**

**IN THE MATTER OF THE RENEWAL OF
HAZARDOUS WASTE PERMIT EPA ID NUMBER
NM5890110518 AND GRANTING OF CORRECTIVE
ACTION COMPLETE STATUS FOR CERTAIN SOLID
WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
AT SANDIA NATIONAL LABORATORIES**



NO. HWB 14-01 (P)

FINAL ORDER

INTRODUCTION

This matter comes before the Secretary of the Environment following a hearing on May 5-8, 2014, in Albuquerque, New Mexico. The United States Department of Energy, National Nuclear Security Administration, and Sandia Corporation (“Applicants”), seek the renewal of permit No. NM5890110518 (“Permit”), issued to Sandia National Laboratories (“Facility”) to store and treat hazardous wastes under the New Mexico Hazardous Waste Act. Applicants further seek the determination of corrective action complete status for twenty-four solid waste management units (“SWMUs”) and areas of concern (“AOCs”) located at the Facility. The New Mexico Environment Department (“NMED” or “Department”) supports the issuance of the permit and approval of corrective action complete status with certain conditions and controls the Department believes are necessary to protect public health and the environment. Intervenor Citizen Action New Mexico, Citizen for Alternatives to Radioactive Dumping, Agua Es Vida Action Team and Our Endangered Aquifer Working Group (collectively, “Intervenors”) urge additional permit conditions beyond those proposed by the Bureau.

After a four-day public hearing, the Hearing Officer recommended approval of the renewal application permit No. NM5890110518 as well as corrective action complete status for the twenty-four SWMUs and AOCs. The Hearing Officer's recommendations are contained in the Hearing Officer's Report, Proposed Findings of Fact, Conclusions of Law and Draft Order ("Hearing Officer's Report"). Each party had an opportunity to comment on the Hearing Officer's Report, and Applicants and the Department did in fact submit such comments. Intervenors did not submit any comments on the Hearing Officer's Report.

Having considered the administrative record in its entirety, including the post-hearing submittals submitted by Applicants and the Department, and the Hearing Officer's Report; and being otherwise fully advised regarding this matter; the Secretary HEREBY MODIFIES THE HEARING OFFICER'S REPORT AS SET FORTH BELOW:

STATEMENT OF ISSUES

While Applicants and the Department generally agree with the majority of the findings, conclusions and recommendations contained in Hearing Officer's Report, Applicants object to three permit conditions proposed by the Department and recommended by the Hearing Officer: (1) Permit Section 6.2.1, which proposes to require permitted units to meet residential standards to qualify for clean closure; (2) Permit Section 5.1, which requires Applicants to conduct air quality monitoring at the Thermal Treatment Unit ("TTU"); and (3) Permit Section 5.9.1, which requires Applicants to conduct subsurface soil sampling at various locations in the vicinity of the TTU. Applicants and the Department also provided a number of comments requesting minor,

substantive changes or minor corrections to address spelling, grammatical or typographical errors. All of these issues are addressed in detail below.

LEGAL STANDARDS

According to the procedural regulations governing public hearings on permitting decisions, the Department has the burden of proof for any challenged permit conditions it has proposed. *See* 20.1.4.400(A)(1) NMAC. The Hearing Officer must then determine each matter in controversy by a preponderance of the evidence and issue a Hearing Officer's Report containing findings of fact, conclusions of law, a recommended decision and a proposed final order. *See* 20.1.4.400 NMAC. The Secretary may adopt, modify, or set aside the Hearing Officer's recommended decision, and shall set forth in the final order the reasons for the action taken. *See* 20.1.4.500(D)(2).

DISCUSSION

I. PERMIT SECTION 6.2.1: CRITERIA FOR CLEAN CLOSURE

Prior to the hearing, the Department proposed allowing the clean closure requirements set out in Permit Section 6.2.1 to match the foreseeable land use, which could be either industrial or residential. NMED Exh. 1 at 61, § 6.2.1. However, the Department changed its position right before the hearing and argued that clean closure of a hazardous waste management unit requires cleanup levels appropriate for residential land use of a property. Without providing any meaningful discussion or analysis, the Hearing Officer agreed with the Department's position and required closure to residential land use standards. Applicants object to this condition and request closure to be based on the foreseeable land use, which could be either residential or industrial. The Secretary agrees with Applicants' position that closure should be based on the foreseeable land use,

which could be either residential or industrial, and will therefore modify the recommendation contained in the Hearing Officer's Report as to Permit Section 6.2.1.

The Secretary finds the Department failed to adequately demonstrate closure to residential land use standards is factually or legally appropriate. Relying on an unofficial, internal policy developed by a former employee over a decade ago, the Department argued that closure to a residential land use standard is appropriate. As a preliminary matter, unofficial, internal policies will be given no weight by the Secretary in this hearing or in any future hearings. Decisions by government agencies, such as the Department, should be based solely upon a reasonable interpretation of the relevant federal and state statutes and regulations, and official policy guidance documents, such as the RCRA guidance documents promulgated by the Environmental Protection Agency. As Applicants correctly argued, no federal or state law requires remediation to a residential land use scenario as part of closure. To the contrary, closure based on an industrial land use scenario will satisfy the closure standard identified in 40 C.F.R. § 264.111 when the reasonably foreseeable land use scenario is industrial. In addition, EPA guidance documents recognize that closure to non-residential levels is appropriate. *See* Cotsworth Memo (Mar. 16, 1998) (RCRA on-line database on the EPA website, index No. 14174). Finally, the Department's concern over its inability to restrict potential future land use at the permitted units is without merit as Section 1.20.1 of the Permit provides an enforceable mechanism for restricting future land use. As the Department notes on page 35 of its Proposed Findings of Fact and Conclusions of Law, Section 1.20.1 of the Permit requires restrictions on land use at the permitted units in order to ensure that the "property may not be used for any purpose other than that on which the

cleanup of the property was based (e.g. if the cleanup level achieved was based on industrial land use, the property cannot be used in a manner requiring a more strict cleanup level such as for residential use of the land).” Accordingly, the Secretary finds closure should be based on the foreseeable land use, which could be either residential or industrial.

II. PERMIT SECTION 5.1: AIR QUALITY MONITORING AT TTU

Applicants object to Section 5.1 of the proposed Permit, which requires them to submit a work plan to conduct air quality monitoring at the TTU, based on a variety of different arguments. Applicants claim the Department’s Hazardous Waste Bureau either does not have the requisite authority to require air quality monitoring at the TTU, or that other entities, such as the Albuquerque Environmental Health Department or the Occupational Safety and Health Bureau, are better equipped to assess and determine whether air quality monitoring at the TTU is necessary to protect human health and safety. Applicants also claim the Department failed to satisfy its burden of demonstrating air quality modeling is necessary to protect human health and safety. The Hearing Officer agreed with the Department’s position and upheld this disputed condition in the Hearing Officer’s Report. While the Hearing Officer’s Report does not adequately explain why the Department’s position is correct, the Secretary nonetheless agrees with the Hearing Officer’s recommendation regarding Section 5.1 of the Permit. Therefore, for the reasons set forth below, the Secretary will not remove Section 5.1 from the final Permit.

The Secretary finds the Department easily satisfied its burden of proof with respect to Section 5.1 of the Permit since the air monitoring requirements fall under the

authority conferred to Department as the agency authorized to implement and enforce hazardous waste regulations in accordance with the Resource Conservation and Recovery Act. In addition, the Secretary finds the requirements are necessary to protect human health and the environment. As the Department explained in their Closing Argument, Section 5.1 is authorized under 40 C.F.R. Part 264, Subpart X. As a unit for open burning of explosive waste, the TTU is classified as a miscellaneous unit subject to the standards at 40 C.F.R. Part 264, Subpart X. Subpart X provides that the permit for a miscellaneous unit must contain “such terms and provisions as necessary to protect human health and the environment, including but not limited to ... design and operating requirements ... [and] detection and monitoring requirements.” 40 C.F.R. 264.601. Subpart X also provides that protection of human health and the environment includes, but is not limited to prevention of any releases that may have adverse effects “due to migration of waste constituents in the air.” 40 C.F.R. § 264.601(c). In addition, 40 C.F.R. § 264.602 provides that “[m]onitoring, testing, analytical data, inspections, response and reporting procedures and frequencies must ensure compliance with §§ 264.601, 264.15, 264.33, 264.75, 264.76, 264.77 and 264.101 as well as meet any additional requirements needed to protect human health and the environment as specified in the permit.” Accordingly, Section 5.1 of the Permit clearly falls within the authority of the Department.

The Department also clearly demonstrated Section 5.1 is necessary to protect human health and the environment. As the Department explained, verifying air emissions from the TTU is necessary to verify the appropriateness of the assumptions relied upon in the air quality monitoring and the risk assessment performed for the TTU. *See* NMED

Exhibit 15A at p. 8-9; *see also* NMED Exhibit 20, p. 7-8. Section 5.1 will help determine the accuracy of emission rates relied upon in the AQS Model, especially for cyanide compounds. *See* Tr. Vol. 4, p. 953, lines 12-25 (Testimony of Michael S. Smith).

Accordingly, the Department's interest in reducing the uncertainty associated with AQS Model provides a compelling justification for including Section 5.1 in the final Permit as this additional data will help ensure the health and safety of onsite workers at the Facility.

III. PERMIT SECTION 5.9.1: SUBSURFACE SOIL SAMPLING AT TTU

Applicants object to Section 5.9.1 of the proposed Permit, which requires them to conduct subsurface soil sampling at depths of 0-6 inches at specific locations in the vicinity of the TTU. Applicants claim the Department failed to establish such sampling is necessary to protect human health and the environment, or in the alternative that sampling beyond the operational fence of the TTU would not be indicative of subsurface soil conditions in the area. The Secretary finds the Department has sufficiently established the requirements of Section 5.9.1 are necessary to protect human health and the environment and will, therefore, require this condition to be included in the final Permit.

The requirements of Section 5.9.1 were added in response to a recommendation in a screening level risk assessment performed by AQS. AQS' recommendation was based on the fact that soil sampling results for PETN and silver exceeded soil to groundwater screening levels. *See* NMED Exhibit 15A at p. 18-19. Thus, AQS recommended subsurface soil sampling be required in the Permit to definitively show whether subsurface soil contamination is migrating downward. *See* NMED Exhibit 20 at p. 13-14. Accordingly, based on the evidence provided by AQS and presented by the Department

at the hearing, Section 5.9.1's requirements with respect to subsurface soil sampling provide a reasonable method for ensuring that migration of hazardous constituents through soil or groundwater do not result in an adverse effect on human health or the environment.

IV. MINOR SUBSTANTIVE CHANGES AND CORRECTIONS

Both the Department and Applicants request a number of minor, substantive changes or minor corrections to address spelling, grammatical or typographical errors in their respective comments on the Hearing Officer's Report. Specifically, on page 30 of their Comments and Objections, Applicants request a number of "Minor Suggested Changes to the Hearing Officer's Report." Likewise, on pages 1 through 6 of their Comments on the Hearing Officer's Report, the Department also requests a number of minor corrections. Unless otherwise indicated below, the Secretary finds all of these proposed minor, substantive changes or corrections are appropriate and will, therefore, require the Department to incorporate these requests into the final Permit.

CONCLUSION

IT IS THEREFORE ORDERED:

1. Pursuant to 20 NMAC 1.4.403, written comments on the Hearing Officer's Report were accepted and considered.
2. The Permit is renewed and issued as contained in NMED Exhibits 1 and 2, with the following changes:
 - a. In Permit Section 1.6, the Definition of Permitted Unit is modified as follows:

"Permitted Unit" means a Hazardous Waste Management Unit authorized for operations or for which post-closure care is required

by this Permit. The Permitted Units authorized by this Permit are listed in Attachment J (Hazardous and Mixed Waste Management Units), Table J-1.1 (Units Permitted for Storage in Containers (Process Code SO1)), Table J-1.2 (Units Permitted for Treatment (Process Codes TO4 and X01)) and Table J-2 (Permitted Units Undergoing Post-Closure Care (Process Code S99)). The locations of the Permitted Units are shown in Figure 2, Permit Attachment L (Figures).

b. In Permit Section 6.2.1, numbered paragraph 2, the recommendation in the Hearing Officer's Report is rejected for the reasons set forth above and paragraph 2 is modified as follows:

"2. Any release of a hazardous waste or hazardous constituent to environmental media at or from the Unit has been remediated to a concentration level that is protective of human health and the environment. Cleanup levels for environmental media may take into account non-residential exposure assumptions and future land use, provided that those assumptions are clearly stated and that any land use restrictions are maintained."

c. In Permit Section 8.2.1, the third paragraph is modified as follows:

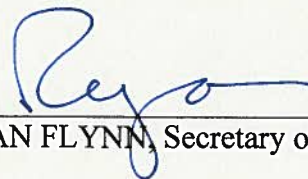
Attachment J, Tables J-1.1, J-1.2, J-2, and J-3, list the hazardous waste management units at the Facility and their status (e.g., permitted, under post-closure care, closed). A map showing the locations of SWMUs and AOCs at the Facility is presented in Figure 52.

3. The Permit includes two tables in Permit Attachment K, Table K-3, *Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete with Controls*, and Table K-4, *Solid Waste Management Units, Areas of Concern, and Hazardous Waste Management Units for which Corrective Action is Complete with Controls*, as shown in NMED Exhibit 2. The tables are approved with the following change: SWMU 140 is placed on Table K-4 of Attachment K instead of Table K-3. In addition, SWMU 140 is deleted from Table M-1 of Attachment M.

4. Unless specifically addressed in paragraphs 2 or 3 above, all of the “Minor Suggested Changes to the Hearing Officer’s Report” requested by Applicants on page 30 of their Comments and Objections shall be incorporated into the final Permit and the minor corrections requested by the Department on pages 1 through 6 of their Comments on the Hearing Officer’s Report shall also be incorporated into the final Permit. If any of the minor changes or corrections requested by either Applicants or the Department conflict with any of the changes provided in paragraphs 2 or 3 above, then the language set forth in paragraphs 2 and 3 shall control and be incorporated by the Department into the final Permit.

5. Unless specifically addressed above, all of the other recommendations contained in the Hearing Officer’s Report, including the Hearing Officer’s Proposed Findings of Fact and Conclusions of Law, are hereby adopted by the Secretary.

6. The Bureau shall provide notice and an opportunity for public comment when the Bureau receives from the Applicants the Community Relations Plan required by Permit Section 1.18, and shall consider all comments in finalizing the Plan.



RYAN FLYNN, Secretary of Environment

Notice of Opportunity for Judicial Review

Pursuant to NMSA 1978, § 74-4-14, any person who is or may be affected by any final administrative action of the Secretary of NMED may appeal to the Court of Appeals for further relief within thirty days after the action.

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CERTIFICATE OF SERVICE

I hereby certify that on December 19, 2014 a copy of the **FINAL ORDER** was sent electronically and via first-class mail to:

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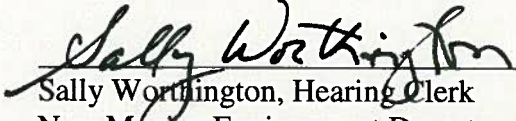
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