STATE OF NEW MEXICO
BEFORE THE SECRETARY OF ENVIRONMENT

IN THE MATTER OF:

PROPOSED PERMIT MODIFICATION FOR)
SANDIA NATIONAL LABORATORIES)
EPA ID NO: NM5890110518) NO. HWB 15-18 (P)
TO DETERMINE CORRECTIVE)
ACTION COMPLETE WITH CONTROLS)
AT THE MIXED WASTE LANDFILL)

HEARING OFFICER'S REPORT

This matter involves the modification of permit No. NM5890110518, issued for Sandia National Laboratories ("SNL"). The United States Department of Energy ("DOE"), owner of the facility, and Sandia Corporation (referred to as "Sandia"), operator of the facility (collectively referred to as "Applicant"), seek a determination from the New Mexico Environment Department ("NMED") of corrective action complete ("CAC") with controls status for the Mixed Waste Landfill ("MWL") located at the facility, which is under the New Mexico Hazardous Waste Act ("HWA"), NMSA 1978, §§ 74-4-1 to -17 (2010). The Applicant requested a class 3 permit modification for a CAC determination for the MWL. On January 12, 2015, the NMED proposed to determine that corrective action was complete with controls at MWL.

This matter was heard on July 8-11, 2015 in Albuquerque, New Mexico at the Balloon Fiesta Park Museum, 5000 Balloon Fiesta Parkway, Albuquerque, New Mexico. For the Applicant, SNL was represented by Jeffrey Wechsler, Montgomery & Andrews, P.A., and Amy J. Blumberg, in-house counsel for SNL. DOE was represented by Cynthia R. Wimberly. The Applicant presented written technical testimony, direct testimony, was subjected to cross-examination and presented rebuttal testimony.

The NMED was represented by John Verhaul and Gregory Lauer, Office of General Counsel for NMED. NMED presented written technical testimony, direct testimony, was subjected to cross-examination and presented rebuttal testimony.

For objectors, David C. McCoy, Executive Director of Citizen Action New Mexico, Paul Robinson, Research Director of Southwest Research and Information Center, and Herbert Ericksen Nuttall, PhD, Principal Professional for Kleinfelder, Inc. The objectors presented written technical testimony, direct testimony, was subjected to cross-examination and presented rebuttal testimony.

The hearing was conducted in accordance with 20.1.4 NMAC, NMED's Permitting Procedures. The hearing was public and a substantial amount of public comment was offered at the hearing, both written and verbal.

Background of MWL at SNL

1. Sandia National Laboratories ("SNL") is a federal facility owned by the United States Department of Energy ("DOE") and located on the Kirtland Air Force Base ("KAFB"), southeast of Albuquerque. Mitchell Direct at 3:10-11.
2. SNL is managed and operated by Sandia Corporation ("Sandia"), a wholly owned subsidiary of Lockheed Martin Corporation, pursuant to contract DE-AC04-84AL85000, with DOE's National Nuclear Security Administration. *Id.* at 3:7-11.
3. SNL personnel provide research, development, and testing services and manufacture specialized non-nuclear products and components for national defense and security applications. *Id* at 3:13-15. SNL activities also include enhancing security of nuclear weapons globally, developing technologies to secure critical infrastructure against natural or malicious disruption, and preparing for national security implications of climate change. *Id.* at 3:15-19.
4. In conducting these activities, SNL generates solid, hazardous, radioactive, and mixed wastes at its facility, which includes five technical areas and surrounding test areas. *Id.* at 3:20-22.
5. The MWL is a 2.6-acre solid waste management unit ("SWMU") located in the north-central portion of Technical Area III (TA-III) at SNL. *Id.* at 4:2-3. It is located 4 miles south of SNL central facilities and 5 miles southeast of the Albuquerque International Sunport. *Id.* at 4:5-6.

6. The MWL is situated between the Manzanita Mountains to the east and the Rio Grande to the west. The land surface is generally flat with a gentle slope to the west, towards the Rio Grande. Groundwater occurs approximately 500 feet below the ground surface in Santa Fe Group deposits (basin fill sediments). A 500-foot thick vadose (unsaturated) zone consisting of dry silt and sand, with some clay and gravel, separates the disposal areas from groundwater.There are no geologic faults in the vicinity of the MWL that have had displacement in Holocene time. The southern terminus of the West Sandia Fault, part of the Tijeras fault complex, is approximately 2,200 feet to the north-northwest of the MWL. *Id.* at 4:14-22.

7. The current and future land-use designation for the MWL, which is located in Technical Area III, is industrial. This is in accordance with the SNL Permit, Permit Part 6 Section 6.2.1, issued January 2015, and the Compliance Order on Consent, effective April 2004, specifying closure is based on the foreseeable land use. *Id.* at 7:12-15; MWL 1006, 1335.

8. The MWL consists of two distinct disposal areas: the classified area (occupying 0.6 acres) and the unclassified area (occupying 2.0 acres). Approximately 100,000 cubic feet of low-level radioactive and mixed waste containing approximately 6,300 curies (at the time of disposal) of radioactivity were disposed in the MWL from March 1959 through December 1988. Classified wastes were buried in cylindrical pits in the classified area and unclassified wastes were buried in shallow trenches in the unclassified area. Mitchell Direct at 4:7-12.

Scope of Proceeding

9. This proceeding centers upon determination of CAC with controls at MWL at SNL. Completion of corrective action objectives at the MWL is governed by the Compliance Order on Consent ("COOC"), entered into on April 29, 2004 and the 2005 Final Order of the Secretary. In accordance with the COOC at Section III.W.3, a determination of corrective action complete, either with or without controls, is a Class 3 permit modification. As permit modifications, CAC determinations are thus subject to the procedural regulations governing permit modifications, at 20.1.4 and 20.4.901 NMAC.

10. The request at issue in this proceeding seeks a permit modification establishing corrective action complete ("CAC") with controls status for the MWL. MWL 1318, 1329; 7-9-15 II Tr. 552:14-19.

11. The implementation of the final remedy, concerning the design and construction of the evapotranspiration cover ("ET Cover"), is properly before the Hearing Officer. 7-9-15 II Tr. 532:23-533:22.

12. The selection of the final remedy, the feasibility of excavation, and the steps necessary for CAC are not at issue in this proceeding. The foregoing issues were conclusively determined in the 2004 hearing and final order resulting from the proceeding *In re Request for a Class 3 Permit Modification for Corrective Measures for the Mixed Waste Landfill,* No. HWB 04-11(M) ("2004 Proceeding"). 7-9-15 II Tr. 531:5-25, 536:5-11; MWL 1011; *see* MWL 1008, 1009.

13. Timing of the first 5-year report is not at issue. The time frame for the first 5-year report was previously determined in the 2004 Proceeding and subsequently clarified in the October 14, 2011, NMED approval of the Corrective Measures Implementation Report ("CMI Report"). 7-9-15 II Tr. 531: 25-532:11: MWL 1008, 1009, 1011.

14. The inventory of the MWL and whether high level radioactive waste ("HLW") is contained therein are not at issue in this proceeding. 7-9-15 II Tr. 536:12 537:1 1. Both were considered and resolved in the 2004 Proceeding. *Id.; see* MWL 1008, 1009. Moreover, the regulatory authority regarding matters of high level radioactive waste is not NMED but rather the federal government. 42 U.S .C. §§ 201 1, *et seq.*

15. The regulatory status of the MWL as a SWMU was previously raised by Citizen Action New Mexico in the 2004 Proceeding and in the 2014 proceeding on the facility-wide permit ("2014 Proceeding"), and it was conclusively determined that the MWL is a SWMU under RCRA . Reiser Rebuttal at 2:23-3:1, 3:21-23; MWL 1008, 1009; Mitchell Direct at 7:13- 17.

16. The Applicants have the burden of proof that the permit should be modified. This burden does not shift. 20.1.4.400.A(1) NMAC.

Background of CAC Status

17. NMED first issued a permit for storage of hazardous waste at SNL on August 6, 1992 ("Permit"). In 1993, the U.S. Environmental Protection Agency ("EPA"), acting pursuant to the 1984 Hazardous and Solid Waste Amendments ("HSWA"), issued an amendment to the Permit known as "Module IV" (MWL 1002). Module IV, effective August 26, 1993, required investigation and corrective action pursuant to 40 C.F.R. Part 264.101 at all SNL SWMUs. On January 2, 1996, the NMED received authorization from the EPA to implement corrective action under the RCRA and became the administrative authority for Module IV. Mitchell Direct at 6:18-7:2.

18. On April 29, 2004, DOE, Sandia and NMED entered into a Compliance Order on Consent ("Consent Order"), which governs all current corrective action at SNL (MWL 1006).The Consent Order provides the general framework and corrective action requirements for all SWMUs, including the MWL. The Final Order (MWL 1011) selected the final remedy and defines specific conditions for completion of the corrective action process at the MWL. These remaining conditions address remedy planning, implementation, and documentation that was incorporated into Module IV of the Permit through the Class 3 permit modification granted by NMED on August 2, 2005 (MWL 1014). Mitchell Direct at 7:3-11.

19. Corrective action is a process that requires the following steps: (1) Identify and assess the potential SWMU; (2) Investigate and characterize the SWMU, by collecting data necessary to determine the nature and extent of any contaminant releases, and evaluate whether remediation is needed to address hazardous wastes or hazardous constituents that are present or may have been released, by performing a technical risk assessment to determine if the nature and extent of any releases pose an unacceptable risk to human health and the environment; (3) Evaluate corrective measures alternatives

or remedies; (4) Select the final remedy; (5) Implement and complete the final remedy; and (6) Where appropriate, maintain controls after completing the final remedy. Mitchell Direct at 8:1-19.

20. The schedule and specific corrective action requirements for DOE and SNL are included in Module IV of the Permit (MWL 1014) and the Consent Order (MWL 1006). Corrective action conditions specific to the MWL are included in the Final Order (MWL 1011). Mitchell Direct at 8:16-19.

21. At the MWL, corrective action steps 1 through 4 were completed by August 2005, as documented in the Final Order (MWL 1011) and the related modification to Module IVof the Permit (MWL 1014).

22. The MWL Final Order established conditions for completion of corrective action at the MWL, which address steps 5 and 6.

23. The Final Report included the following conclusions, which are based on the administrative record and testimony:

    a. The inventory is reasonably complete and accurate;

    b. The MWL does not contain high-level radioactive waste (i.e., mixed oxide nuclear fuels);

    c. Groundwater was not contaminated by releases from the MWL; and

    d. NMED and WERC: A Consortium for Environmental Education and Technology Development, which performed an independent peer review of the MWL CMS Report, consistently found DOE's and Sandia's risk assessments to be adequate and found the Phase 2 RFI data and CMS Report to be of high quality.

24. The Final Order established conditions for completion of corrective action at the MWL, steps 5 and 6:

    a. Corrective Measures Implementation ("CMI") Plan that includes a construction plan for the ET Cover, a Fate and Transport modeling report that studies and predicts the future migration of contaminants, and monitoring triggers that, if exceeded, will require additional testing or

the implementation of an additional or different remedy;

b. CMI Report to document construction of the ET Cover;

c. Long-Term Monitoring and Maintenance Plan ("LTMMP") to specify institutional and physical controls to be implemented along with the ET Cover as part of the final remedy;

d. 5-year reports reevaluating the feasibility of excavation and analyzing the effectiveness of the ET Cover; and

e. Public participation process.

Mitchell Direct at 12:8-13:1.

25. The Final Order selected the remedy and identified the specific steps that DOE and SNL needed to accomplish to complete the corrective action process at the MWL. Completion of the Final Order conditions is the basis for a corrective action complete with controls determination for the MWL. Meeting the Final Order conditions also addresses the corrective action requirements of the Permit (MWL 1335) and Consent Order (MWL 1006). Mitchell Direct at 14:1 8-23.

26. The appropriateness of the requirements set forth in the Final Order is not at issue in this proceeding. Rather, the sole issue is whether Applicants have complied with the requirements of the Final Order.

Implementation of Final Order

27. The CMI Plan detailed the process and specifications for the selected remedy identified in the MWL Final Order. Among other things, the CMI Plan included Fate and Transport modeling ("Fate and Transport Model" or "Model"), proposed monitoring and trigger levels for tritium, radon, and VOC monitoring soil vapor analysis plan and proposed institutional controls, such as industrial land use and site restrictions.

28. The CMI Plan was submitted to NMED on November 3, 2005 and, after a lengthy public process, was approved with conditions by NMED on December 22, 2008.

29. The CMI Report documents implementation of the final remedy–the ET Cover with biointrusion barrier. *See* MWL 1188. ET Cover construction was completed from May 2 through September 3, 2009. MWL 1183, 1186.

ET Cover

30. The ET Cover is comprised of 3 primary layers that were constructed on top of the subgrade. The Compacted Subgrade is the original MWL land surface that was modified in 2006 to establish a compacted, level surface upon which the ET Cover was constructed. The 3 primary layers of the ET Cover include the Biointrusion Layer (comprised of interlocking, angular rock and soil to fill void space), the Native Soil Layer (comprised of local, mechanically-screened soil), and the Topsoil Layer (comprised of local, mechanically-screened top soil admixed with crushed 3/8-inch gravel, 25% by volume). Mitchell Direct 24:17-25:15.

31. The ET Cover overlies the 2.6 acres disposal area, with an overall footprint of 4.1 acres. The full thickness of the ET Cover overlies the 2.6 acre disposal area footprint. Mitchell Direct at 27:3-8.

32. The construction of the ET Cover protects the disposal areas from intrusion and infiltrating water. The Compacted Subgrade is the cover foundation, the Biointrusion Layer is aphysical intrusion barrier (small animal and humans), and the Native Soil and Topsoil Layers are "reservoir layers" that hold any water that percolates downward from the surface, temporarily storing precipitation moisture before it moves to the atmosphere through the processes of evaporation and transpiration (i.e., water transfer from soil to the atmosphere through direct evaporation or transpiration by plants). Native vegetation stabilizes the cover surface and protects it from erosion, as well as moves water from the Topsoil and Native Soil Layers into the atmosphere through transpiration. Mitchell Direct at 27:9—28:5.

33. The specifications of the ET Cover are consistent with the CMI Plan. MWL 1021, 1188; Mitchell Direct 29:10-20.

34. NMED approved the revised CMI Report on October 14, 2011, after a 60-day public comment period, a public meeting, an additional 30-day comment period, and revisions in accordance with DOE's and Sandia's responses to NMED's technical comments. MWL 1224- 1225, 1227, 1230. Mitchell Direct at 30:5-16.

LTMMP

35. The Long-Term Monitoring and Maintenance Plan ("LTMMP") specifies the institutional and physical controls to be integrated with the ET Cover as part of the final remedy for the MWL to ensure the protection of groundwater, human health, and the environment. Mitchell Direct at 31:3-9.

36. The first version of the LTMMP was submitted to the Department on September 25, 2007, but was later withdrawn. Mitchell Direct at 31:16-32:2. Applicants submitted a revised LTMMP in March 2012, and NMED approved the LTMMP on January 8, 2014 after the required public comment and response process. MWL 1235, Submittal: Long Term Monitoring and Maintenance Plan (Mar. 23, 2012); MWL 1302, Approval MWL Long Term Monitoring and Maintenance Plan, March 2012 (Jan. 8, 2014).

37. All LTMMP monitoring systems were in place and operational in January 2014, with the exception of three multi-port soil-vapor monitoring wells. The drilling and installation field work on the soil-vapor monitoring wells was completed in July 2014 and NMED approved the corresponding report on September 25, 2014.

38. "The purpose of the [LTMMP] is to ensure that the MWL, with the ET Cover deployed, remains protective of human health and the environment." MWL 1235 at iii. To accomplish this purpose, the LTMMP establishes a program for monitoring the following parameters: (l) radon concentrations in the air; (2) tritium, gamma-emitting radionuclides, and metal concentrations in surface soil; (3) soil moisture in the vadose zone; (4) volatile organic compound (VOC) concentrations in the vadose zone soil vapor; (5) VOCs, specific metals, and radionuclide concentrations in groundwater;

and (6) gamma-emitting radionuclides in biota. *Id.* at i.

39. The LTMMP explains that DOE and Sandia will utilize the data obtained from the LTMMP to produce the annual and 5-Year Report. *Id.* at 4-11.

40. Citizen Action appealed the approval of the LTMMP to the New Mexico Court of Appeals. The Court of Appeals rejected the arguments by Citizen Action and allowed the LTMMP to stand.

41. In the 2004 Proceeding, as part of the Corrective Measures Implementation Plan, the Secretary ordered Sandia to establish triggers for future action, which identify and detail specific monitoring results requiring additional testing or implementation of an additional or different remedy. Final Order at 3-4, AR MWL 1011. Monitoring and triggers were developed and based on Fate and Transport modeling results.

42. Trigger levels are concentration levels of contaminants that, if exceeded, compel the Applicants to take action. 7-9- 15 II Tr. 558:4-7.

43. Trigger levels are generally set at concentrations that are well below the nearest applicable regulatory standard. Exceedance of a trigger level is an early warning that requires follow-up testing (i.e. investigation) to determine if conditions are changing. If exceeded the result is first verified by resampling. If the resampling confirms the exceedance, DOE and SNL must notify NMED within two weeks and provide information on further investigation and/or actions that will be implemented to determine thecause of the exceedance and the appropriate follow-up actions. An investigation report presenting investigation results, statistical analysis, and other relevant information must be submitted to NMED within one year of the exceedance notification.

44. Trigger levels were set as part of the CMI Plan comment resolution process. They are set at 50 percent of the MCL, or regulatory standard, for PCE and TCE in groundwater. The regulatory standard for both PCE and TCE in groundwater is 5 micrograms per liter, and thus the trigger level for both PCE and TCE is 2.5 micrograms per liter, which is half of the regulatory standard

level. 7-9-15 II Tr. 528:12-529:1

45. The first annual Long-Term Monitoring and Maintenance ("LTMM") Report was submitted by Applicants on June 18, 2014 and approved by NMED on August 6, 2014.

46. The second LTTM Report, which includes a full year of LTMM activities, was submitted to NMED on June 9, 2015.

47. Since implementing the LTMMP requirements in January 2014, ongoing monitoring and inspection results continue to document MWL conditions that are consistent with previous investigations and risk assessments, and are protective of groundwater, human health, and the environment. Mitchell Direct at 40:1-6.

48. LTMM reports occur on both an annual and 5-year basis. Annual LTMM reports present the monitoring, inspection, maintenance, and repair activities and results for a given reporting year, including comparison of monitoring results to trigger levels. The 5-year reevaluation reports summarize LTMM results presented in previous Annual LTMM reports and specifically address the following points defined in the Final Order:

    a. Reevaluate the feasibility of excavation;

    b. Analyze the effectiveness of the ET Cover and the likelihood of contaminants reaching groundwater based on current monitoring results;

    c. Review of monitoring results and other pertinent data;

    d. Update Fate and Transport model if current results are outside the range of previously modeled results; and

    e. Include all efforts to ensure any future releases are detected and addressed before any effect on groundwater or increased risk to public health and the environment.

Mitchell Direct at 40:8-23.

49. The first 5-year Report must be submitted to NMED five years after LTMMP approval, by January 8, 2019.

Groundwater Monitoring

50. From August 2005 to the present, DOE and Sandia performed groundwater monitoring in accordance with the Consent Order (MWL 1006). This monitoring was documented in Annual Groundwater Monitoring Reports submitted to the NMED (MWL 1027, MWL 1063, MWL 1151, MWL 1180, MWL 1195, MWL 1229, MWL 1240, MWL 1300, and MWL 1316). Mitchell Direct at 32:3-9.

51. No groundwater contamination from the MWL has been demonstrated in the vicinity of the MWL, based on extensive site characterization and 25 years of groundwater monitoring at the MWL. 7-8-15 I Tr. 112:23-113:1.

52. The monitoring wells, including historic wells, MWL-BW1 and MWL-MW1 through MWL-MW6, and current wells, MWL-BW2, MWL-MW7, MWL-MW8, and MWL-MW9, have provided reliable and representative results. 7-8-15 I Tr. 112:23-113:11.

53. All monitoring systems required under the LTMMP are in place and functional. NMED Ex. 5 at 22:9-16.

54. The LTMMP network is a reliable and representative groundwater monitoring system for the foreseeable future.

55. Monitoring of environmental media is currently ongoing at the MWL pursuant to the provisions of the LTMMP. Although there have been releases of contaminants from the MWL, the release do not currently pose unacceptable risk to human health or the environment and are not expected to pose unacceptable risk in the future. The cover and monitoring systems are in place and functional, with monitoring of environmental media, inspections, and maintenance to be conducted under the LTMMP. The cover will isolate and stabilize most of the wastes in the landfill, and the monitoring systems should provide adequate warning if an unexpected release

of a waste or waste constituent occurs in the future. NMED Ex. 5 at 22:17-13: 23:1-4.

56. . All corrective action requirements set forth in the 2005 Final Order have been met.

Public Participation and Public Hearing

57. On January 12, 2015, NMED issued a public notice concerning the proposal to grant CAC with controls status for the MWL and announcing that the NMED would take public comment on the CAC proposal. The comment period for the CAC proposal was conducted from January 12, 2015 to March 13, 2015, and extended from March 17 until April 13, 2015, for a total of 89 days. During the public comment period the NMED received comments from interested members of the public, including citizen groups such as the Citizens for Alternatives to Radioactive Dumping and Citizen Action New Mexico. Several commenters requested an extension of the public comment period and a public hearing, which were granted. NMED Ex. 5 at 13:20-23: 14:1-6.

58. As a timely written notice of opposition to the CAC proposal and requests for a public hearing were received, the NMED and the Applicants responded to the requests in an attempt to resolve the dispute. On April 16, 2015, the NMED issued an invitation to the Applicants and those in opposition to the CAC proposal to meet and confer with the NMED. The meetings were held in an attempt to resolve issues giving rise to opposition of the proposal. The NMED convened meetings with the commenters and the Applicants on April 29 and May 4, 2015. The NMED determined that it would not be possible to resolve all issues leading to opposition. Because opposition to the CAC proposal could not be resolved through negotiations, the NMED scheduled the hearing in this matter. NMED Ex. 5 at 14:9-19.

59. On April 29, 2015, pursuant to 20.1.4.200.A(1), the Secretary of the Environment Department issued a hearing determination, ordering that a hearing be scheduled in this matter.

60. On May, 20, 2015, notice of the public hearing in this matter, to commence on July 8, 2015 and continue as necessary, was published in the Albuquerque Journal in English and Spanish. On May 20, 2015, such notice was published in the Santa Fe New Mexican in English and Spanish.

61. The public hearing was held before the Hearing Officer on July 8 through 11, 2015, at the Anderson Abruzzo Albuquerque International Balloon Museum, 9201 Balloon Museum Drive NE, Albuquerque, NM, in Pugash Hall.

62. Several opportunities for public comment were provide on each day of the hearing. Approximately sixteen individuals presented non-technical public comment and many individuals spoke several times. Further, many public individuals cross-examined certain technical witnesses.

Certification of Completion and Permit Modification

63. On September 25, 2014, DOE and Sandia requested a certificate of completion for CAC with controls for the MWL from the NMED under the April 29, 2004 Consent Order governing corrective action at SNL. *See* MWL 1318, Request for Certificate of Completion for the MWL (Sept. 25, 2014); MWL 1009, ¶ 17. On October 8, 2014, the NMED issued a certificate of completion for the MWL, verifying that DOE and Sandia had completed corrective action required by the Consent Order ("Certificate of Completion"). *See* MWL 1319, Certificate of Completion for the MWL (Oct. 8, 2014).

64. Following issuance of the Certificate of Completion, DOE and SNL submitted their request for a Class 3 modification to the Permit in accordance with the Consent Order, thereby initiating the instant administrative proceeding to determine whether CAC status should be granted for the MWL. *See* MWL 1322, Request for Class 3 Permit Modification to Module IV of the Hazardous Waste Permit–MWL (Oct. 17,2014) ("Request for Permit Modification").

65. Pursuant to the Class 3 Permit Modification request, DOE and Sandia request that NMED take two actions, which are reflected in the Permit:

    a. Determine that corrective action is complete at MWL; and

    b. Establish the long-term monitoring, maintenance, and controls needed to provide ongoing protection of human health and environment.

NMED Determinations

66. The NMED's interpretation of the HWA and the HWMR is entitled to deference.

67. NMED has determined that the MWL is a SWMU and has been characterized and remediated in accordance with 40 CFR § 264.101, the Consent Order, and the May 2005 Final Order, and data indicate contaminant concentrations pose acceptable levels of risk to human health and the environment under current and projected future land use. NMED Ex. 5 at 20:19-23.

68. Challenges to NMED's classification of the MWL are untimely.

69. NMED has determined that the Applicants have completed the remedy implementation requirements of the 2005 Final Order and the Compliance Order on Consent.

Objectors' Position

70. A party that contends that a permit modification is improper, inadequate, or invalid has the burden of going forward to present an affirmative case on the challenged condition. 20.1.4.400.A(1) NMAC.

Inventory of the MWL

71. The inventory of the MWL and the uncertainty of the inventory was considered during the 2004 Proceeding. AR MWL 1008 at 4-5, 8; Reiser Rebuttal at 4:14-21, 5:4-6; 6:12-9:20.

72. The disposal sheets were available prior to the 2004 Proceeding, were a part of the administrative record in the 2004 Proceeding, and were taken into consideration in evaluating the inventory of the MWL in the 2004 Proceeding. See 7-9-15 II Tr. 508:9-516:18.

73. The Hearing Officer in the 2004 Proceeding noted that interviews, data, and the NMED analysis concluded that no HLW was placed in the MWL. 7-9-15 II Tr. 436:6-439:21; 7-10-15 III Tr. 798:5-19.

74. Fuel canisters were previously considered in the 2004 Proceeding, and the Secretary determined that they did not constitute high-level waste. 7-10-15 III Tr. 799:16-24.

75. Objectors' exhibits and witnesses in the proceeding did not provide new relevant information regarding the inventory of wastes in the MWL. Reiser Rebuttal at 9:21-11:12.

76. The evidence presented at the hearing regarding the inventory of the MWL was previously presented, considered, and adjudicated.

Remedy

77. After the 2004 public hearing, the Secretary determined that the MWL should not be excavated. MWL 1011; Mitchell Rebuttal at 3:2-7.

78. The 2005 Order of the Secretary selected the remedy, and the New Mexico Court of Appeals affirmed the decision in 2008.

79. The Hearing Officer did not receive new evidence that would require or compel a change to the remedy selection.

Monitoring Wells

80. The evidence presented at the hearing was not convincing that the location or function of the monitoring wells was not adequate.

September/October 2014 Monitoring Results

81. Objectors argued that the September and October 2014 soil vapor data obtained at a depth of 400 feet is evidence of a release from the MWL, is not properly characterized, and, thus, corrective action is not complete.

82. The detections for PCE and TCE in the April 2014 groundwater sample in MWL-MW8 were below trigger levels, near the limits of detection, and below the practical quantitation limits. Sampling revealed no detections of VOCs in results from all wells in October 2014 and April 2015. 7-9-15 Tr. 527:14-530:15; 666:15-22.

83. September and October 2014 soil-vapor monitoring results are below trigger levels. *See* DOE/Sandia Ex. 25.

84. The LTMMP provides that if data meet the established trigger levels, then Applicants will take action. MWL 1121; Mitchell Direct at 38:12-39:7.

85. The hearing officer was not presented with evidence that the release of hazardous constituents pose an unacceptable risk to human health and the environment.

86. The Objectors have not met their burden.

Hearing Officer's Determinations

87. The final remedy has been constructed in accordance with the CMI Plan and documented in the CMI Report.

88. Previous investigation results, historic and current monitoring results, Fate and Transport modeling, and risk assessments indicate that current and future conditions are protective of human health and environment.

89. All conditions for corrective action as defined in the Final Order, Consent Order, and Module IV of the Permit have been met.

90. The Applicants have met their burden of demonstrating that the Permit should be modified.

91. Corrective action is complete with controls for the MWL.

RECOMMENDATION

Based upon the administrative record in its entirety, I recommend the Permit be modified as proposed in NMED Exhibit 1. The Permit should be modified to reflect that the MWL is corrective action complete with controls as requested by the Applicants.

RECOMMENDED FINAL ORDER

A proposed *Final Order* consistent with the recommendation above is attached and incorporated by reference.

Respectfully submitted,

Christopher T. Saucedo, Hearing Officer

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NO. HWB 15-18 (P)

CERTIFICATE OF SERVICE

I hereby certify that a copy of the Hearing Officer's Report was served on all parties of record in this matter on October 13, 2015 via First Class Mail, Email or Hand Delivery.

Email and Hand Delivery

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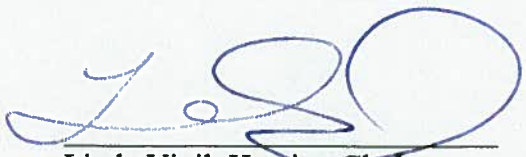

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