STATE OF NEW MEXICO
BEFORE THE SECRETARY OF THE ENVIRONMENT

OCT 2010
DOCKETED BY THE HEARING CLERK BEFORE THE SECRETARY OF ENVIRONMENT

IN THE MATTER OF THE RENEWED
HAZARDOUS WASTE FACILITY PERMIT
FOR THE WASTE ISOLATION PILOT PLANT

HWB 10-26(P)

HEARING OFFICER'S REPORT

Pursuant to 20.1.4.500, C (1) NMAC, Hearing Officer the Honorable A. Joseph Alarid submits the following report in the above-captioned matter to the Secretary of the New Mexico Environment Department:

INTRODUCTION

The United States Department of Energy ("DOE"), owner and operator of the Waste Isolation Pilot Plant ("WIPP") and Washington TRU Solutions LLC ("WTS"), operator of WIPP (collectively "Applicants") seek to renew the current permit ("Current Permit") from the New Mexico Environment Department (the "Department") to store and dispose of hazardous waste at WIPP under the New Mexico Hazardous Waste Act ("HWA"), NMSA 1978 §§74-4-1 to 74-4-17. On April 27, 2010, the Department issued a proposed hazardous waste facility permit for the storage and disposal of hazardous waste at WIPP. A hearing on the Proposed Permit was held on August 9 and 10, 2010, in Santa Fe, New Mexico, and for the sole purpose of receiving non-technical public comment on August 16, 2010, in Carlsbad, New Mexico.

FINDINGS OF FACT

A. The Waste Isolation Pilot Plant

1. WIPP is a mined geologic repository in a deep salt formation. The WIPP Land Withdrawal Act (Pub. L. No. 102-579) ("LWA") was passed in 1992 (and amended in 1996) to authorize the disposal of 6.2 million cubic feet of transuranic ("TRU") waste at WIPP. Disposal operations began at WIPP in 1999. (Kehrman testimony at 5)

2. WIPP has the mission of disposal of TRU waste from federal atomic energy defense activities. (Pub. L. No. 96-164 § 213(a) (Dec. 29, 1979)) The LWA defines TRU waste as waste that contains more than 100 nanocuries of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater than 20 years, with certain exceptions. (LWA § 2(18)) TRU waste disposed of at WIPP includes both "mixed waste" and "non-mixed waste." TRU mixed waste contains both radioactive materials and hazardous wastes. Hazardous wastes are defined and regulated pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.,* and the HWA. (Kehrman testimony at 5-6)

3. Authorization of WIPP began with Pub. L. No. 96-164, § 213. Section 8 of the LWA defines the regulatory authority of the U.S. Environmental Protection Agency ("EPA") with respect to WIPP. Under the Atomic Energy Act, 42 U.S.C. § 2011 *et seq.*, DOE has certain authorities over defense radioactive waste. DOE and EPA have issued releases that define their respective authorities over mixed waste. (EPA, 51 Fed. Reg. 24504 (July 3, 1986); DOE, 52 Fed. Reg. 15937 (May 1, 1987); Kehrman testimony at 6-8)

4. Under the LWA EPA has authority to determine whether WIPP complies with radioactive waste disposal standards set forth in 40 CFR Part 191, subpart B, and Part 194. EPA has certified that WIPP complies with 40 CFR Part 191, subparts B and C, pursuant to Part 194. (63 Fed. Reg. 27354 (May 18, 1998)), EPA recertified WIPP in 2006 (71 Fed. Reg. 18010 (April 10, 2006)). A second recertification application is now pending. (Kehrman testimony at 8)

B. Units to be Permitted

5. WIPP includes a mined geologic repository, which is defined as a miscellaneous unit under 40 CFR § 260.10. The geologic repository has been divided into discrete hazardous waste disposal units ("HWDUs"), termed "panels," which are permitted under 40 CFR Part 264, subpart X. A surface storage unit, the Waste Handling Building Container Storage Unit, is located within the Waste Handling Building. WIPP stores and disposes of contact handled ("CH") and remote-handled ("RH") TRU waste, as defined in LWA §§ 2(3) and 2(12). The Waste Handling Building Container Storage Unit consists of a CH Bay and an RH Complex. The Parking Area Container Storage Unit is an outdoor storage unit. (Most testimony at 3)

C. The Permit Renewal Proceeding

6. WIPP is currently permitted to store and dispose of hazardous waste pursuant to the Department's Hazardous Waste Facility Permit No. NM4890139088-TSDF, the Current Permit, issued to DOE and WTS, dated October 27, 1999 and effective November 26, 1999. (Bearzi testimony, NMED Ex. 2 at 6) The current application is an application to renew the Current Permit for an additional term of ten years.

7. Under 40 CFR §§ 270.10(h) and 270.30(b), if a permittee wishes to continue an activity regulated by an existing permit after the expiration date of that permit, it must apply for and obtain a new permit. The application for a new permit must be submitted at least 180 days before the expiration date of the existing permit. (Most testimony at 3)

8. On May 27, 2009, the Applicants submitted a Renewal Application to the Department. (AR document AB) Applicants requested an extension of time to amend their Renewal Application on August 19, 2009, citing ". . . extensive comments from the stakeholders at and subsequent to the pre-application public meetings" as the basis for their request. (Bearzi testimony, NMED Ex. 2 at 7; Most testimony at 3; Most Ex. 1) The Department granted the requested extension with the conditions that the amended renewal application be based upon the Current Permit with changes limited to seeking authorization to dispose of waste in Panel 8 and adding the Mine Rate Ventilation Plan. (Bearzi testimony, NMED Ex. 2 at 7; Most Ex. 2)

9. The Amended Renewal Application was submitted on September 25, 2009. (Bearzi testimony, NMED Ex. 2 at 7; AR document AE) The Department determined that the application was administratively complete by letter dated November 25, 2009. (Most Ex. 3) With that determination, the Current Permit will remain in effect until the effective date of the new Permit. (Bearzi testimony, NMED Ex. 2 at 7)

10. On April 27, 2010, pursuant to 20.4.1.901.A(1) and (2) NMAC, the Department issued a draft permit (AR 100452.1, AR document AL) and a public notice (AR 100454), stating that the draft permit was available for public comment and review, that the Department would accept comment on the draft permit for 60 days, until June 28,

2010, and that members of the public might request a hearing on the draft permit. (Bearzi testimony, NMED Ex. 2 at 7) On May 12, 2010, pursuant to 20.4.1.901.A.5(c) NMAC, the Secretary of the Department entered an order directing that a public hearing should be held, beginning on August 9, 2010. (AR 100521)

11. On June 4, 2010, pursuant to 20.4.1.901.A(3), 20.4.1.901.C(3), and 20A.1.901.C(4) NMAC, the Department issued a public notice stating that a draft permit was available for review and comment by the public, that a public hearing would be held beginning on August 9, 2010, and that the Department would accept comment from the public on the draft permit up until the close of the public hearing, and specifying procedures for presentation of technical testimony and oral public comments at the scheduled hearing. (AR 100611) (Bearzi testimony, NMED Ex. 2 at 8)

12. The Department received comments from several members of the public and organizations representing members of the public. Pursuant to 20.4.1.901.A(4) NMAC, commencing on June 1, 2010, the Department met with several members of the public and several organizations representing members of the public in an attempt to resolve issues raised in their comments and to reach agreement on the draft permit to minimize the scope of the scheduled hearing. (Bearzi testimony, NMED Ex. 2 at 8)

13. On June 29, 2010, the Department, the Applicants, and representatives of organizations representing members of the public reached an agreement on many of the terms of a revised draft permit and signed a Stipulation reflecting that agreement. This Stipulation is in the hearing record. (Stipulation on Permit Language, filed June 30,

2010)("Stipulation") Exhibit 1 to that Stipulation is a draft permit as changed, reflecting the terms of the agreement. ("Draft Permit as Changed")

14. The Stipulation states that, except as provided in attached lists of exceptions, each signatory party agrees to the terms of the Draft Permit as Changed and will not oppose its issuance. (Stipulation, ¶¶ 1-4) The attached lists of exceptions on behalf of the signatory parties refer to the following items:

a. Applicants excepted with respect to concentrations of concern for volatile organic compounds.

b. Concerned Citizens for Nuclear Safety ("CCNS") excepted with respect to:

1. Permit Section 1.10.2
2. Permit Section 3.1.1.3 concerning CH Bay surge storage
3. Permit Table 3.1.1 concerning CH Bay surge storage
4. Permit Section 3.1.2.3 concerning Parking Area Surge Storage
5. Permit Table 3.1.2 concerning Parking Area Surge Storage
6. Permit Attachment A1, Section A1-1c(1) concerning the CH Bay Surge Storage Area
7. Permit Attachment A1, Section A1-1c(2) concerning the Parking Area Surge Storage Area
8. Permit Attachment A1, Section A1-1f(1) concerning the CH Bay Surge Storage Area
9. Permit Figure A1-1 concerning the CH Bay Surge Storage

10. Permit Figure A1-2 concerning the Parking Area Surge Storage Area

11. Permit Table 4.6.2.3 concerning VOC concentrations of concern

c. Nuclear Watch New Mexico ("NWNM") excepted with respect to Permit Section 4.4 on VOC limits.

d. Southwest Research and Information Center ("SRIC") excepted as to:

1. Permit Section 3.1.1.3 concerning CH Bay surge storage
2. Permit Table 3.1.1 concerning CH Bay surge storage
3. Permit Section 3.1.2.3 concerning Parking Area Surge Storage
4. Permit Table 3.1.2 concerning Parking Area Surge Storage
5. Permit Attachment A1, Section A1-1c(1) concerning the CH Bay Surge Storage Area
6. Permit Attachment A1, Section A1-1c(2) concerning the Parking Area Surge Storage Area
7. Permit Attachment A1, Section A1-1f(1) concerning the CH Bay Surge Storage Area
8. Permit Figure A1-1 concerning the CH Bay Surge Storage
9. Permit Figure A1-2 concerning the Parking Area Surge Storage Area
10. Permit Table 4.6.2.3 concerning VOC concentrations of concern

e. Citizens for Alternatives to Radioactive Dumping ("CARD") excepted as to:

1. Permit Section 3.1.1.3 concerning CH Bay surge storage
2. Permit Table 3.1.1 concerning CH Bay surge storage
3. Permit Section 3.1.2.3 concerning Parking Area Surge Storage
4. Permit Table 3.1.2 concerning Parking Area Surge Storage
5. Permit Attachment A1, Section A1-1c(1) concerning the CH Bay Surge Storage Area
6. Permit Attachment A1, Section A1-1c(2) concerning the Parking Area Surge Storage Area
7. Permit Attachment A1, Section A1-1f(1) concerning the CH Bay Surge Storage Area
8. Permit Figure A1-1 concerning the CH Bay Surge Storage
9. Permit Figure A1-2 concerning the Parking Area Surge Storage Area
10. Permit Table 4.6.2.3 concerning VOC concentrations of concern

(Stipulation, Ex. 3-7)

15. Therefore, as between the parties to the Stipulation, all issues that are not subject to an exception by at least one party are stipulated and agreed, are resolved for purposes of this proceeding, are outside the scope of the hearing, and need not be the subject of evidence or of findings of fact and conclusions of law. Parties to the hearing

who are not a signatory to the Stipulation are free to raise such issues by properly presented testimony.

16. Pursuant to the Notice dated June 4, 2010, Statements of Intent to present technical testimony were filed by Applicants, the Department, CCNS, and PECOS Management Services, Inc. ("PECOS") The Statements of Intent are in the hearing record. In most cases, Statements of Intent included summaries (and often the full text) of the direct testimony of the witnesses offered by each party. No other parties to the Stipulation or any other person filed a Statement of Intent to Present Technical Testimony. The Department's Statement of Intent included Exhibit 1, "Proposed Hazardous Waste Facility Permit (July 2, 2010)"("Proposed Permit"), which incorporates revisions to the Draft Permit as Changed reflecting the Department's administrative actions on the Current Permit dated July 2, 2010. (NMED Ex. 1, 6; Zappe testimony, NMED Ex. 4 at 3; Zappe, Tr. 236-37). The Department's Statement of Intent recommends issuance of the Proposed Permit.

17. To expedite proceedings, the parties (*i.e.,* persons who filed a timely Statement of Intent or Entry of Appearance) agreed upon an order entitled Stipulated Pre-Hearing Scheduling and Procedural Order, which was entered on July 28, 2010. This order, *inter alia,* provides in paragraph 11 that certain listed witnesses may present their testimony in the form of written statements on file on July 16, 2010, without cross-examination. By later amendment the names of additional witnesses were added to the list in paragraph 11. (Tr. 9; Amendment to Stipulated Pre-Hearing Scheduling and Procedural Order, August 9, 2010)

18. Some testimony offered at the hearing and by stipulation addressed the interpretation of terms of the Proposed Permit. Where no party contests the adoption of a permit term or proposes alternative language, there is no need to make findings of fact and conclusions of law with regard to the interpretation of such permit term. The matters addressed in such testimony do not require adjudication, except as they may come within one of the exceptions to the Stipulation.

D. Testimony Supporting the Proposed Permit

19. The Applicants submitted extensive written testimony, largely supporting the terms of the Proposed Permit. (See Kehrman, Most, Stroble, Ledford, Salness, Powers, Beauheim, Cassingham, Garcia, Gross, Lichty, Paslay, Patchet, McCauslin testimony) The Department's testimony fully supported the terms of the Proposed Permit. (Bearzi testimony; Zappe testimony; Walker testimony; NMED Ex. 2, 4, 9). As to uncontested matters, the Proposed Permit fully complies with the applicable laws and regulations.

E. Objections to the Proposed Permit

20. The issues on which the parties present conflicting positions as to the Proposed Permit are:

a. CCNS filed written testimony objecting to Permit Section 1.10.2 concerning the Department's approvals of submissions (CCNS Statement of Intent to Present Technical Testimony, July 16, 2010),

b. Applicants filed written testimony objecting to Permit Table 4.6.2.3, concerning Volatile Organic Compound Concentrations of Concern (Applicants' Statement of Intent to Present Technical Testimony, July 16,

2010); no other person filed written testimony or presented oral testimony contesting this provision, and

c. CCNS, SRIC, and CARD did not stipulate to the adoption of CH Bay and Parking Area Surge storage provisions, which include several sections, tables, and figures. (cited in ¶ 14 above) None of these organizations submitted written or oral testimony describing their objections to the specific permit conditions or proposing alternative language.

21. PECOS submitted a Statement of Intent to Present Technical Testimony on July 15, 2020. PECOS stated that Jerry V. Fox, Ph.D, P.E., would provide a summary of PECOS's technical comments and suggestions at the forthcoming hearing and that Christopher M. Timm, P.E., would discuss how the permit might be improved technically. PECOS's Statement of Intent did not contend that any provision of the Proposed Permit was inadequate, improper, or invalid, nor did it propose any permit conditions. At the hearing, representatives of PECOS sought to offer technical testimony in written form. The Department and the Applicants objected that the evidence exceeded the scope of the PECOS Statement of Intent. (Tr. 253-56) The Hearing Officer sustained the objections on the basis that the proffered written testimony exceeded the Statement of Intent. (Tr. 261) The testimony was received as public comment. (Tr. 262)

Permit Section 1.10.2

22. CCNS objected to Permit Section 1.10.2 of the Proposed Permit, arguing that it is not in accordance with the law and that 20.4.2 NMAC applies only to fees and not to the approval, disapproval, or denial of documents submitted to the Secretary. (CCNS

Statement of Intent at 5) CCNS claimed that there is no statutory or regulatory basis for this permit condition. (CCNS Statement of Intent at 6)

23. The Department testified that 20.4.2 NMAC and 40 CFR § 270.32(b)(2) provides a regulatory basis for this provision. (Tr. 309) The Department explained that Permit Section 1.10.2 addresses the Department's approval of documents that are submitted by the Applicants for the Secretary's approval pursuant to 20.4.2 NMAC or otherwise. (Bearzi testimony, NMED Ex. 2 at 20) Some documents are required to be approved pursuant to the "fee regulations," 20.4.2 NMAC. (See 20.4.2.205 through 20.4.2.209 NMAC; Bearzi testimony, NMED Ex. 2 at 20-21) These regulations state that NMED shall "provide the owner or operator written notice of approval, approval with modifications, disapproval, denial, or rejection of the submittal." 20.4.2.201.B.4 NMAC. Other submittals require approval for other reasons. See, *e.g.,* Permit Section 8.12, requiring approval of an Accelerated Corrective Measures Work Plan. (Bearzi testimony, NMED Ex. 2 at 21)

24. CCNS also argued that there is no legal authority cited in the Proposed Permit for approved submittals to "control over any contrary or conflicting requirements" of the Permit. (CCNS Statement of Intent at 5) The Department explained that written approval makes a submittal and associated schedules (1) enforceable as part of the Permit, (2) in accordance with the terms of the Secretary's written approval, and (3) control over any contrary or conflicting requirements of the Permit. (Bearzi testimony, NMED Ex. 2 at 21) Thus, an approved submittal is enforceable under § 74-4-10.A of the HWA as a "condition of a permit." Enforceability is in accordance with the terms of

approval; for instance, when a document seeks a permit modification, the Secretary's approval will specify that it is subject to completion of processes applicable to a permit modification. Finally, the approved submittal supersedes any conflicting Permit terms, since it is effective and postdates the Permit. Permit Section 1.10.2 is not intended to be used to obtain action by the Department that would have the effect of a permit modification under 40 CFR § 270.42. New language has been added to state that the Permit Section does not affect any public process that is otherwise required by the Permit, the HWA, or its implementing regulations. (See Bearzi testimony, NMED Ex. 2 at 20-22)

25. CCNS also objected that there is no provision for public notification that a conflicting document controls. (CCNS Statement of Intent at 6) The Department testified that processes exist for the public to review documents and the Secretary's approvals, such as the Inspection of Public Records Act. (Tr. 308) Citizens may also challenge actions taken by the Department under the Resource Conservation and Recovery Act. (*id.*)

Permit Table 4.6.2.3

26. The Applicants objected to provisions contained in Permit Section 4.6.2.3. Specifically, the Applicants objected to the volatile organic compound ("VOC") concentration of concern ("C of C") values listed in Table 4.6.2.3. (Kehrman testimony 30; Tr. 44) Applicants' proposed changes appear in Kehrman Ex. 4, Table 5, col. 12. Applicants propose that the C of C limit for carbon tetrachloride be raised from 412.5 parts per billion volume ("ppbv") in the Proposed Permit to 1,660 ppbv, that C of C

values for chloroform, methylene chloride, and 1,1,2,2-tetrachloroethane be reduced, and that 1,1-dichloroethylene be reclassified as a noncarcinogen. (*id.*)

27. The Cs of C are used in the Proposed Permit in monitoring and responding to the level of VOCs in the repository. Permit Section 4.6.2.3 requires Applicants to notify the Department when the concentration of any VOC measured at station VOC-A in Drift E-300 exceeds a C of C appearing in Table 4.6.2.3 or when the running annual average concentration for any VOC exceeds its C of C. Permit Section 4.6.2.4 requires the Applicants to take remedial action when the running annual average measurement of any VOC exceeds the Table 4.6.2.3 C of C value. The Applicants are then required to cease disposal in the active CH disposal room and install ventilation barriers. If the running annual average concentration of any VOC exceeds the Table 4.6.2.3 C of C value for six consecutive months, the Applicants are required to close the affected underground HWDU. Such provisions are supported in the regulations by 40 CFR § 264.602. (NMED Ex. 1, Permit Part 4)

28. Recent waste shipments have included increased amounts of carbon tetrachloride, causing the concentrations of carbon tetrachloride measured at Station VOC-A to increase and sometimes exceed the C of C value of 165 ppbv that appeared, when the Current Permit was issued, in the Table that corresponds to Table 4.6.2.3. (Kehrman, Tr. 50; Kehrman Ex. 4, Table 3)

29. Applicants in April 2010 submitted a permit modification request to increase the C of C for carbon tetrachloride to 1,660 ppbv through the Class 2 process specified at 20.4.1.900 NMAC, incorporating 40 CFR § 270.42(b). (AR 100420; Kehrman Ex. 2)

The Department approved an increase in that value from 165 ppbv to 412.5 ppbv on July 2, 2010. (NMED Ex. 6, Attachment 1; Kehrman, Tr. 52) Applicants did not seek review of the Department's final decision. The Department stated, responding to comments, that it was approving the less complex portion of the permit modification request as a Class 2 modification. The Department further stated that, because this modification would be incorporated in the draft permit considered in the upcoming permit renewal hearing, the Department expected that the remaining issues involving reapportionment of cancer risk may be raised by one or more parties during that hearing. (NMED Ex. 7 at 5, comment 6.4)

30. At the hearing Applicants proposed changes in the Cs of C on the following bases:

a. to update Table 4.6.2.3 values to reflect recent changes in EPA unit risk factors that are used in calculating limits for air emissions.

b. to reapportion the proportions of the total risk from carcinogenic VOCs, on the premise that the Cs of C for these VOCs reflect portions of a total excess cancer risk to a surface worker of 10^{-5}. (Kehrman testimony at 30)

31. The Applicants made several arguments. They said that the Current Permit only apportions 75% of the 10^{-5} Department-imposed risk limit for carcinogenic VOCs (Kehrman, Tr. 49, 53, 56), that no significant change in the distribution of VOCs contained in waste is expected, and that, if Applicants were required to close a room because of violation of the (previous) 165 ppbv limit, the risk to a surface worker would

then be only about eight percent of the limit of 10^{-5} cancer risk. (Kehrman, Tr. 33, 44-51, 54-58).

32. Applicants proposed to reapportion risk among the listed carcinogenic VOCs in accordance with the "expected concentrations in the waste." (Kehrman, Tr. 53, 59-60)(Kehrman testimony at 34-35) Applicants stated that such reapportionment would result in a carbon tetrachloride C of C value such that carbon tetrachloride could provide 74% of the allowable risk. Mr. Kehrman testified that 74% reflects "what we see currently as a risk" and the "highest concentrations in current waste that's being shipped." (Kehrman, Tr. 63) Mr. Kehrman testified that apportionment of risk should reflect (a) assumptions made when the Applicants submitted their application in 1995, (b) concentrations seen "today," and (c) concentrations seen over "the past several years," but he conceded that the Applicants do not propose a formal process of weighting the three measures. (Kehrman, Tr. 69-70)

33. Mr. Kehrman testified that he had tried to project the future concentrations of carbon tetrachloride or other VOCs. (Tr. 78). He testified that in Panel 5, with overpacking of waste drums and the use of restrictive filters, the limit of 412.5 ppbv would not be exceeded in the future, but in Panel 6, levels of 600 to 650 ppbv would be reached, depending on the sequence of closure of panels. (Tr. 78-80; 113-14) One of the elements of his estimate was the proportion of high-organic waste streams that would be shipped. (Tr. 80-81) Mr. Kehrman did not have the underlying calculations. (Tr. 78) On cross-examination, he testified there is a number of assumptions that go into the

projections, and there is a series of scenarios that would lead to concentrations in the 500, 600, 650 ppbv range. (Tr. 115-16)

34. Mr. Kehrman sought to justify reapportionment of VOC cancer risk by the goal of not exceeding the C of C limit for carbon tetrachloride. (Kehrman, Tr. 50-51, 71). Thus, he rejected a C of C limit of 525 ppbv for carbon tetrachloride, since Applicants projected values in the 600s. (Tr. 84-85) Mr. Kehrman testified that "[i]f the limit is broken, then we – then that means we have allocated the risk limits improperly." (Tr. 85) He elaborated: "As I said, we believe that there are a set of circumstances that will make it difficult to comply with 412.5. So we're seeking to reapportion the risk so that those circumstances don't occur." (Tr. 97)

35. Mr. Kehrman did not present his calculations of projected VOC concentrations and admitted that various "assumptions . . . could be made with regard to concentrations, with regard to gas generation rates, with regard to all of those factors that go into that calculation that could give you a wide range of answers." (Tr. 341-43). He testified that "our interest was to answer the question is 412-and-a-half adequate or could it, in fact, be exceeded as a running annual average during the term of this permit. And we—and like I said, we accepted a set of assumptions and made that determination." (Tr. 342) However, he was "not prepared to go into the details of the modeling." (Tr. 342)

36. Mr. Kehrman admitted that Applicants were asking for a carbon tetrachloride C of C "at a very high level." (Tr. 93) At the same time, he testified that, if the limit of 412.5 ppbv remained in effect, Applicants could and would meet the limit: "So, yes, we can meet that limit." (Tr. 89) He testified that the Applicants had adopted procedures to

minimize carbon tetrachloride concentrations, including overpacking and adding bulkheads, and these options would be available under the Proposed Permit. (Tr. 72-76, 108-11).

37. The Department's witness on this issue, Mr. Zappe, testified that the increase in the carbon tetrachloride C of C from 165 ppbv to 412.5 ppbv, made in a Class 2 permit modification, is supported by EPA's revised unit risk factor for this VOC. (Zappe testimony, NMED Ex. 4 at 3) EPA's revision supported increasing the carbon tetrachloride C of C by 2.5 times. (*id.*; Tr. 202-03) The 412.5 ppbv limit is within the acceptable range of risk, continues to be protective of human health and the environment, and is consistent with 40 CFR Part 264, subpart X. (Tr. 203-04)

38. The Department made reference to its Response to Comments on the Applicants' Class 2 permit modification request. (Zappe testimony, NMED Ex. 4 at 3) There, the Department stated that reapportionment of risk required complex calculations. (NMED Ex. 7 at 5, comment 6.4; Tr. 217-18) Further, the Department concurred with commenters that EPA's change of the unit risk factor for carbon tetrachloride did not support increasing the carbon tetrachloride C of C to the level sought by the Applicants. (NMED Ex. 7 at 6, comment 6.5; Zappe testimony, Ex. 4 at 4).

39. On cross-examination the Department testified that it had not seen the Applicants' calculations supporting their request to reapportion the cancer risk among carcinogenic VOCs and that it could not render an opinion on the reasonableness and technical defensibility of the Applicants' proposal until it had seen the Applicants' calculations. (Tr. 218-19) The Department also testified that the administrative record

for the permit did not contain an inventory of expected volumes or types of waste that might be disposed of at WIPP in the next ten years and that the Department did not make any assumptions as to future inventories when developing the values in Table 4.6.2.3. (Tr. 235)

40. The Applicants testified that they were not seeking to change the limit on excess cancer risk for the surface worker, but argued that in its present form, Table 4.6.2.3 apportions among the carcinogenic VOCs only 75% of that limit and that they seek to "recover the remaining 25%." (Tr. 49) The Department responded that there is no requirement to apportion 100% of the risk. (Tr. 204, 222)

41. The Applicants testified on cross-examination that they do not anticipate changes in the VOC content of waste received at WIPP. (Tr. 72) They testified that they have taken measures to protect workers from carbon tetrachloride exposure and that, with these measures, which are permissible under the Current Permit and the Proposed Permit, they have seen a leveling off of carbon tetrachloride concentrations (Tr. 72-76, 108-09, 233-34, 239), and violations of the original 165 ppbv and modified 412.5 ppbv Cs of C for carbon tetrachloride have been avoided. (Tr. 233-34, 239) Carbon tetrachloride concentrations are now in the range of 150 to 152 ppbv, which is less than one-tenth of the Applicants' requested C of C. (Tr. 76)

42. The Department testified that it has a preference for and supports the C of C value contained in the Proposed Permit, which is 412.5 ppbv (Tr. 218, 225-26), and that it had expected an evidentiary presentation supporting a proposed reapportionment (Tr. 203), but it had not seen the calculations supporting the Applicants' proposal. (Tr. 218-

19) Therefore, the Department chose to stay with the values in the Proposed Permit, which were derived from the Current Permit, except where changed based on EPA's change in risk values (Tr. 203-04, 220, 225-26), and remain protective.

Surge storage

43. Another disputed issue concerning the renewal permit is the provision for surge storage. In the Proposed Permit, surge storage is provided for in the Parking Area Unit and in the CH Bay Unit. Under specified conditions, the Applicants would be allowed to use the Parking Area Surge Storage Area for a capacity of 2129 ft^3 of waste storage. This is the equivalent of 12 CH Packages and 4 RH Packages. (Proposed Permit Table 3.1.2) Under the same conditions, the Applicants could use the CH Bay Surge Storage Area for a capacity of 1600 ft^3, which is the equivalent of five loaded facility pallets. (Proposed Permit Table 3.1.1). The Applicants would be required to coordinate shipments and attempt to minimize the use of surge storage. (Proposed Permit Sections A1-1c(1), A1-1c(2))

44. Use of surge storage would be limited by the Proposed Permit to situations when maximum capacity in the parking area is reached and one of the following conditions exists:

a. waste handling equipment malfunctions so the waste cannot be moved to the underground;

b. hoisting or underground ventilation equipment malfunctions so that waste cannot be moved to the underground;

c. power outages cause a suspension of waste emplacement;

d. inbound shipment delays are imminent because of the full parking area unit; or

e. emergencies cause a suspension of waste emplacement.

(Proposed Permit Sections A1-1c(1), A1-1c(2))

45. The same surge storage provisions have been in the Current Permit since a modification became effective in 2006. (See Garcia Ex. 3 at 15) In the intervening time the Applicants have not found it necessary to use the surge storage provisions. (Tr.132, 133, 143)

46. The Hearing Officer who approved the 2006 permit modifications found that there are several benefits of surge storage provision, including that Applicants would have operational flexibility to respond to actual shipping rates and unplanned waste handling and hoisting events. (Garcia Ex. 3 at 15) The 2006 proceeding therefore found that the surge storage provisions contribute to public safety and the environment. (40 CFR § 270.32(b)(2)) Identical surge storage provisions appear in the Proposed Permit.

47. Mr. Garcia pointed out that the WIPP waste handling equipment is now older than in 2006, has been in operation since 1988, and may fail and cause an outage. (Tr. 133, 144-45) However, Mr. Garcia acknowledged that WIPP operated from 1999 until 2006 without a surge storage provision (Tr. 136) and that WIPP has not consistently attained the rate of waste receipt that the 2006 Hearing Officer assumed. (Tr. 138, 146-47) Mr. Bearzi, for the Department, testified that the Proposed Permit would still be protective of public health and the environment if it were approved without the surge storage provisions. (Tr. 195-96)

Other matters

48. PECOS provided public comment supporting use of the VOC Cs of C to monitor "the distribution of VOC allowables in the exhaust gas" in accordance with the Current Permit, as modified based on current EPA reference values. (Fox, Tr. 265) Dr. Fox did not specify the values he proposed but stated that they should be set with an eye to avoiding frequent changes in the limits. (Tr. 266) This testimony does not seek to replace any provision of the Proposed Permit with modified language.

49. PECOS, in public comment, supported surge capability "as an operating tool, which would smooth out operations." (Fox, Tr. 267) Dr. Fox suggested that surge capacity be used during "downtime" to "gain ground . . . for the RH waste." (Tr. 268) He recognized that this would be a change from the Current Permit. No testimony was offered on the need for, or the specific benefits of, such capacity, and Dr. Fox could not say that the addition of parking area surge capacity for RH waste would enable RH capacity usage to increase. (Tr. 271)

50. PECOS, in public comment, objected to language in Permit Section C4-3b, stating that generators may either conservatively assign hazardous waste numbers, or assign numbers that they considered appropriate and consistent with RCRA requirements. (Timm, Tr. 280) Mr. Timm stated that conservative assignment of codes could cause a hazard to first responders who rely on manifest information. (Tr. 281) However, he believed that the Proposed Permit would allow generator sites to "just pick a number out of the air." (Tr. 294) This is plainly not the case under the Proposed Permit. Indeed, Mr.

Timm agreed with the stated approach in the Proposed Permit to discourage the over-coding of hazardous waste numbers. (Tr. 298)

51. PECOS, in public comment, also objected to the installation of explosion isolation walls where neither hydrogen nor methane nor VOC limits had been exceeded. (Tr. 282-84) The schedule for installation of explosion-isolation walls has been agreed among the parties, and there has been no showing that advancing the date when some such walls are installed would cause any possible harm.

52. PECOS (Mr. Timm), in public comment, supported additional quality assurance/quality control measures, including a semiannual audit and a report and a trend analysis. (Tr. 284-85) Mr. Timm cited a calibration problem in VOC monitoring, but he did not know whether there had been a corrective action report issued for it or what action had been taken under existing procedures. (Tr. 295)

53. PECOS, in public comment, proposed changes in the classification of prohibited items, listed in Permit Section 2.3.3, the WIPP Waste Acceptance Criteria. Mr. Timm would raise the permissible water content from 1% of container volume (Permit Section 2.3.3.1) to (a) 5% of the container volume and (b) 0.5 gallons in internal containers, not to exceed 2% of the container volume. (Tr. 286-87) Mr. Timm testified that tests showed that such amounts of liquids "do not pose a threat," that shipping containers will withstand "even large reactions" and that removal of prohibited items itself presents risks. (Tr. 287-88) Mr. Timm did not introduce the tests he referred to and had not done any modeling to see how the addition of liquid would affect the performance assessment. (Tr. 299)

Public Comment

54. At the August 10, 2010 hearing session, public comment was received from four individuals, all of which supported issuance of the Revised Draft Permit to the Applicants:

a. State Representative John Heaton, representative of District 55, commented in support of permit issuance. Representative Heaton supported the Applicants' proposal to raise the VOC level for carbon tetrachloride to 1,660 parts per billion by volume. Representative Heaton commented that he was opposed to any potential reduction in surge capacity. TR Volume 2, Pages 244 through 249.

b. Linda Borrego commented in support of permit issuance. Ms. Borrego mentioned that the safety record of the WIPP facility was outstanding and that the WIPP program has and will continue to ensure that the efforts are made to contain, protect and dispose of waste in a safe and economical manner. TR Volume 2, Pages 250 through 252.

c. Mr. Jerry V. Fox of PECOS provided comment in overall support of issuance of the Revised Draft Permit. TR Volume 2, Page 276.

d. Mr. Christopher M. Timm of PECOS commented that PECOS supports the permit overall and that although PECOS would like to see changes that could make the permit better, should those changes

not occur, PECOS still supports the permit. TR Volume 2, Page 303.

e. The Hearing Officer, pursuant to the June 4, 2010, public hearing notice, convened a one day hearing for non-technical oral public comment in Carlsbad, New Mexico on August 16, 2010. Thirty-three persons appeared and presented public comment. The public comment received in Carlsbad was unanimously in favor of issuance of the Revised Draft Permit to the Applicants. Commentors included, but were not limited to, a former Environmental Improvement Board member, a City Commissioner from Hobbs, New Mexico, the Executive Director for the Hobbs Hispano Chamber of Commerce, the Executive Director for the Carlsbad Department of Development, the President of the Western Commerce Bank in Carlsbad, New Mexico, the Economic Development Corporation for Lea County, Marketing Director for the Carlsbad Department of Economic Development, the Executive Director of the Carlsbad Chamber of Commerce, the City Administrator for the City of Carlsbad, New Mexico, the Superintendent of the Schools for Hobbs Municipal Schools, the Mayor of Carlsbad, New Mexico, President of the Carlsbad Department of Development, various members of the Carlsbad City

Council, State Representative John Heaton, and the prior Mayor of Carlsbad, New Mexico. TR Volume 3, Pages 356 through 436.

f. No public comment was received in either Santa Fe, New Mexico or Carlsbad, New Mexico in opposition to issuance of the Revised Draft Permit to the Applicants.

CONCLUSIONS OF LAW

1. The Secretary has the authority to issue this permit pursuant to § 74-4-4.2.C NMSA 1978.

2. The Permit Application is governed by 20.1.4 NMAC.

3. The public process for the issuance of the Proposed Permit complied with all applicable requirements of 20.1.4 NMAC.

4. The public was given a reasonable opportunity to present technical and non-technical testimony and to cross-examine each witness presenting testimony.

5. The Applicants bear the burden of proof that the Proposed Permit should be issued and not denied. 20.1.4.400.A(1) NMAC

6. The Applicants have presented a Stipulation dated June 29, 2010 and written and oral evidence in support of the issuance of the Proposed Permit. There is substantial evidence in the record that the Proposed Permit will comply with the terms and the purpose of the Hazardous Waste Act and the Hazardous Waste Management Regulations and will protect public health and the environment. The Applicants have met their burden of proof that the Proposed Permit should be issued and not denied.

7. Any person who contends that a permit condition is inadequate, improper, or invalid bears the burden of proof of presenting an affirmative case on the proposed or challenged condition. 20.1.4.400.A(1) NMAC.

8. CCNS contended that Permit Section 1.10.2 is inadequate. CCNS contended that there is no legal basis for this provision and that the provision fails to provide due process for the public. However, CCNS has not carried its burden of proof to establish that Permit Section 1.10.2 is inadequate, improper, or invalid. Based on the evidence presented, the regulations now in force provide a legal basis for the Permit Section, the Department's decision to provide that approved submittals are enforceable as part of the Permit and supersede any conflicting requirements of the Permit are valid determinations under 40 CFR § 270.32(b)(2), and full due process is provided the public concerning approved submittals.

9. Concerning Permit Section 1.10.2, the language of the Proposed Permit should be adopted as written.

10. The Applicants also contended that Table 4.6.3.2 should be amended to change the values for carcinogenic volatile organic compound concentrations of concern, with the value for carbon tetrachloride increased to 1,660 ppbv and other values reduced.

11. The Department has chosen to stay with the existing, and recently-increased, value of 412.5 ppbv as a carbon tetrachloride limit. This decision is reasonable and protective of human health and the environment. It was Applicants' burden to show that the existing limits are "inadequate, improper, or invalid." 20.1.4.400.A(1) NMAC The Applicants did not introduce calculations supporting their

proposal to increase the carbon tetrachloride C of C in their direct case. Their attempt to introduce some such calculations on rebuttal was improper and was rejected. (Tr. 311-27) Moreover, even the late-offered material did not support the Applicants' testimony about projected future exceedances of the 412.5 ppbv limit; in fact, Applicants' witness expressly declined to provide the data supporting such projections. (Tr. 342) At the same, time Mr. Kehrman testified that the 412.5 ppbv limit can be met. (Tr. 89)

12. Applicants have not carried their burden of proof to establish that Table 4.6.2.3 in the Proposed Permit is inadequate, improper, or invalid. Based upon the evidence presented, the Department's decision to maintain the concentration of concern for carbon tetrachloride at 412.5 ppbv is sustained on the basis that the value, and other C of C values in Table 4.6.3.2, are supported by the rationale underlying the original permit issued in 1999, and no facts have been presented that require a change in those values.

13. Southwest Research and Information Center, Concerned Citizens for Nuclear Safety, and Citizens for Alternatives to Radioactive Dumping contended that provisions for surge storage in the Parking Area Unit and the CH Bay Storage Unit should be deleted.

14. Under the Department's rules, "[a]ny person who contends that a permit condition is inadequate, improper, or invalid . . . shall have the burden of going forward to present an affirmative case on the challenged condition." 20.1.4.400.A(1) NMAC. Language contained in a proposed permit may be changed or deleted in response to a case presented by a party to the permitting hearing, but the burden is upon that party to establish that the challenged provision is inappropriate.

15. The named parties have not carried their burden of proof to establish that the surge provisions are inadequate, improper, or invalid. Based upon the evidence presented, the Department's decision to include surge provisions in the Proposed Permit is sustained on the basis that such provisions are supported by the rationale underlying the inclusion of such terms in the 2006 permit modification proceeding as stated in the Hearing Officer's Report dated September 13, 2006.

16. As stated, "[a]ny person who contends that a permit condition is inadequate, improper, or invalid . . . shall have the burden of going forward to present an affirmative case on the challenged condition." 20.1.4.400.A(1) NMAC. Thus, the burden is upon a challenging party to establish that a challenged provision is inappropriate. The testimony offered by PECOS does not meet this burden. The provisions discussed in testimony by PECOS should be kept unchanged in the Proposed Permit.

17. No other member of the public who provided comment met the burden of presenting an affirmative case on a proposed or challenged condition.

18. The Department met its burden of showing that each permit condition is reasonable and necessary to ensure compliance with the Hazardous Waste Act and Hazardous Waste Management Regulations at the WIPP site. There is no basis to deny issuance of the Proposed Permit (NMED Exhibit 1).

RECOMMENDATION AND CONCLUSION

Based on the entire administrative record, including all of the post hearing submittals, I recommend that Applicant's request for the renewal of its Hazardous Waste Facility Permit for

WIPP be granted in accordance with these Findings of Fact and Conclusions of Law, in substantially the form reflected in the Draft Permit as Changed, filed as Exhibit 1 to the Stipulation on Permit Language, filed June 30, 2010. It is my further recommendation that the surge provisions contained in the current permit and the Draft Permit be included in the Final Permit. Also, I recommend that the limits proposed by the Department with respect to concentrations of concern for volatile organic compounds are retained at the levels recommended by the Department.

Respectfully submitted,

The Honorable A. Joseph Alarid
Hearing Officer

STATE OF NEW MEXICO
BEFORE THE SECRETARY OF THE ENVIRONMENT

IN THE MATTER OF THE RENEWED
HAZARDOUS WASTE FACILITY PERMIT
FOR THE WASTE ISOLATION PILOT PLANT

DRAFT

HWB 10-26(P)

FINAL ORDER

This matter comes before the Secretary of the Environment following a hearing before the Hearing Officer held on August 9 and 10, 2010, in Santa Fe, New Mexico and for the sole purpose of receiving non-technical public comment, on August 16, 2010, in Carlsbad, New Mexico.

The Applicant, the United State Department of Energy, owner and operator of WIPP, and Washington TRU Solutions, operator of WIPP, seek to renew for a period of ten years, the current Permit from the Department to store and dispose of hazardous waste under the New Mexico Hazardous Waste Act, NMSA §§ 74-4-1 to 74-4-17. The New Mexico Environment Department ("Department") supports the issuance of the permit with conditions necessary to protect the public health, welfare and the environment.

Having considered the administrative record in its entirety, including the Proposed Findings of Fact and Conclusions of Law, closing arguments, and all post hearing submittals submitted by the Applicant, the Department and other parties to these proceedings, and the Hearing Officer's Report; and being otherwise fully advised regarding this matter:

THE SECRETARY HEREBY ADOPTS THE HEARING OFFICER'S REPORT, PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW AND RECOMMENDED CONDITIONS, IT IS THEREFORE ORDERED:

The Application of the United States Department of Energy and Washington TRU Solutions LLC to store and dispose of hazardous waste at WIPP is granted subject to the conditions set out in the Hearing Officer's Report.

IT IS SO ORDERED.

RON CURRY
Secretary of Environment

STATE OF NEW MEXICO
BEFORE THE SECRETARY OF ENVIRONMENT

OCT 2010
DOCKETED BY THE
HEARING CLERK BEFORE THE
SECRETARY OF ENVIRONMENT

IN THE MATTER OF THE RENEWED
HAZARDOUS WASTE FACILITY PERMIT
FOR THE WASTE ISOLATION PILOT PLANT

HWB 10-26 (P)

REVISED CERTIFICATE OF SERVICE

I certify that on October 26, 2010, I served this **HEARING OFFICER'S REPORT** and **DRAFT FINAL ORDER** via first-class mail and electronically to the following parties of record:

Comments on the report may be submitted to the Hearing Clerk until close of business on November 10, 2010.

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