



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 15 1993

OFFICE OF
AIR AND RADIATION

DISTRIBUTION OF WIPP NACEPT MEETING SUMMARY
REVIEW CRITERIA FOR THE DOE TEST PHASE AND RETRIEVAL PLANS

Dear NACEPT participant:

I would like to thank you for attending and being an integral part of the EPA meeting held in Albuquerque N.M. on May 3 and 4, 1993, which involved the WIPP subcommittee of the National Advisory Council for Environmental Policy and Technology (NACEPT). In response to the request of many individuals, I am sending out a summary document that details the NACEPT meeting.

The enclosed document is a summary of the talks of the meeting, the discussion of issues, and the conclusions and/or consensus reached by panel members. Three of the four appendices are included, I have not forwarded the presentation handouts.

Once again I would like to thank you for your interest in the first WIPP subcommittee meeting of NACEPT.

Sincerely,

A handwritten signature in cursive script that reads "F.A. Caporuscio".

Dr. F.A. Caporuscio
Acting Section Chief
Technical Review Section

930605 5



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REPORT ON PUBLIC MEETING

WASTE ISOLATION PILOT PLANT SUBCOMMITTEE
OF THE
NATIONAL ADVISORY COUNCIL FOR
ENVIRONMENTAL POLICY AND TECHNOLOGY

May 3 and 4, 1993

Albuquerque, New Mexico

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1.0 Introduction

The WIPP Subcommittee of the National Advisory Council for Environmental Policy and Technology (NACEPT) met in Albuquerque, New Mexico on May 3 and 4, 1993 to advise the Environmental Protection Agency (EPA) on criteria which can be used by the Agency in evaluating the Department of Energy (DOE) Test Phase Plan and Waste Retrieval Plan. DOE is required by the WIPP Land Withdrawal Act (LWA) to prepare these plans and submit them to EPA for approval or disapproval¹. EPA, in turn, must evaluate these plans against the requirements provided by Congress in the LWA. According to the LWA, "The Administrator shall approve the test phase plan, or any modification to the plan, in whole or in part, if the Administrator determines that the experiments will provide data that are directly relevant to a certification of compliance with final disposal regulations or to compliance with the Solid Waste Disposal Act" (Sec. 5(d)(2)(A). With regard to the Waste Retrieval Plan, "the Administrator shall approve the retrieval plan, or any modification to the plan, if the Administrator determines that it will provide for satisfactory retrieval of all transuranic waste emplaced during the test phase from WIPP should retrieval of such waste be required" (Sec. 5(d)(2)(B).

The Subcommittee activities are authorized under PL 92563 - the Federal Advisory Committee Act (FACA). A. Newman (EPA/Office of Radiation and Indoor Air (ORIA)) served as the designated federal official (DFO) at the meeting as required by FACA. Ms. Newman outlined the requirements of FACA and described the NACEPT organization which was created to provide recommendations and advice to the EPA Administrator. While the preferred approach at NACEPT committee meetings is to reach a consensus, presentation of minority views is acceptable. The WIPP Subcommittee is under the aegis of the NACEPT Environmental Measurements and Chemical Accidents Committee.

M. Oge (EPA/ORIA) discussed the mission of the Subcommittee for the current meeting noting that the Subcommittee must deal with complex technical and policy issues. Ms. Oge stated that the Subcommittee should provide EPA with advice on criteria to be used by EPA in evaluating the DOE Test Phase Plan and Waste Retrieval Plan. The Subcommittee need not limit its recommendations to criteria included in the EPA options paper. Ms. Oge also

¹ The two plans were submitted to EPA on March 19, 1993.

outlined other areas where EPA might seek advice from the Subcommittee at future meetings.

A list of Subcommittee members (and those attending the meeting) is in Appendix A and a list of all attendees is in Appendix B.

2.0 Presentation of Issues

A detailed agenda for the meeting is in Appendix C. A brief summary of the presentations is included in the following sections together with questions raised and comments made by the Subcommittee during the presentations.

2.1 EPA

A discussion of the EPA options paper was presented by Mr. L. Weinstock. This presentation is in Appendix D. During this presentation, several informational questions were asked by panel members. Some of these questions (and the questioners) are noted below:

- Should the panel consider Agency resource limitations? (Werner)
- What is the definition of "critical path?"
- What is the definition of "experiments?" (Ewing)
- When discussing completeness criteria, is the frame of reference the Test Phase Plan or individual experiments?
- If accidents are not considered in the Waste Retrieval Plan, what is the basis for the plan? (Wiltshire)
- Is the issue of accident prevention included in the criteria/plans? (Neill)
Weinstock indicated that accident prevention criteria were not specifically included in the EPA options paper.
- Do NRC licensees have designated sites to dispose of wastes in the event of an accident? (Whipple)
- Would it be possible for EPA and DOE lawyers to meet and define issues of agreement and disagreement on ambiguous areas in the LWA? (Whipple)

2.2 DOE

DOE's comments on the EPA options paper were presented by S. Van Camp and are in Appendix D. Questions, comments, and answers involving various panel members and Mr. Van Camp are summarized in the following paragraphs.

- Whipple asked what was the DOE view of the appropriate scope for EPA review. DOE said they would like comments from EPA on the entire Test Phase Plan but EPA should limit the rule-making to radioactive and hazardous waste tests at WIPP.
- Neill noted that DOE had deleted the adjective "direct" from its proposed definition of relevance. DOE agreed that this was a valid point.
- Whipple asked for DOE's position as to who (DOE or EPA) would be responsible for deciding whether an experiment, which the Subcommittee thought had little likelihood of achieving good results, should be conducted. DOE indicated that this was their responsibility.
- Ewing asked for clarification as to what is meant by predictable future events.
- Werner noted that QA may be important to a determination of direct relevance.
- Samet inquired as to the DOE peer review process for data quality.
- Whipple asked what was DOE's position on the role of the Subcommittee and EPA in reviewing design of experiments. DOE felt that such review was a DOE responsibility.
- Wiltshire said that timing and schedule were factors in determining direct relevance. Wiltshire also asked why the Waste Retrieval Plan covered only retrieval under normal conditions. DOE said that accidents were covered in separate documentation such as the Final Safety Analysis Report (FSAR). However, Neill noted that, insofar as in-situ experiments are concerned, the FSAR only covers dry bins. Humidified bins, type 2 bins and alcove tests have not been addressed.
- Lehman asked for an explanation of DOE's perceived differences in a "regulatory" role for EPA versus a "compliance" role. Van Camp indicated that a regulatory role was broader, but he was not specific. Oge tried to elicit more detail on this question from DOE.

2.3 CONCERNED CITIZENS FOR NUCLEAR SAFETY (CCNS)/SOUTHWEST RESEARCH AND INFORMATION CENTER (SRIC) PRESENTATION

Summaries of presentations by M. Carde of CCNS and D. Hancock of SRIC are in Appendix D. CCNS urged that the decision-making process relative to criteria for plan evaluation be public. CCNS felt that identification and permitting sites for disposal of retrieved wastes are essential elements in a determination of satisfactory retrieval. SRIC supported this view. They also suggested completeness criteria and evaluation criteria to be used in evaluating the plans. SRIC felt that plans could not be evaluated without knowledge of the final regulations.

In answer to a panel query regarding the status of EPA regulations, M. Oge said EPA planned to issue the final disposal regulations (i.e. 40 CFR 191) during the first week in June. With regard to Resource Conservation and Recovery Act (RCRA) regulations, R. Rosnick (EPA/Office of Solid Waste) said that the No-Migration Determination (NMD) requirements were generally in place and 40 CFR 264, Subpart X provides EPA with adequate regulatory flexibility.

2.4 NEW MEXICO ATTORNEY GENERAL'S OFFICE

The position of the State of New Mexico was presented by L. Lovejoy, Assistant Attorney General, and is in Appendix D. Lovejoy proposed completeness criteria and evaluation criteria for both plans. He noted that, if EPA chose to review general concepts rather than detailed experimental plans, they could be endorsing experiments which cannot be performed or which will generate no useful data. The Waste Retrieval Plan should address sites for post-retrieval storage and accident scenarios.

2.5 CITY OF CARLSBAD, NEW MEXICO

Mayor R. Forrest expressed displeasure that the City of Carlsbad, a major stakeholder in the WIPP Project, had not been included on the WIPP NACEPT Subcommittee. He noted that Carlsbad had actively sought the project rather than having it thrust upon them. Community needs and concerns must come first. The Mayor was supported by J. Heaton, a local businessman, and C. Stroud, another spokesman from Carlsbad. Heaton said that Carlsbad wants enough waste tested to demonstrate the effectiveness of WIPP in handling, storing, and monitoring radioactive waste over the long term. He felt that a single alcove test lacked the

scientific rigor to provide local citizens with confidence in WIPP. Stroud indicated concern with lack a presence in Carlsbad by senior DOE management and lack of a voice on the WIPP Subcommittee. He noted that Carlsbad had an environmental research and monitoring center which would like to work with EPA on oversight functions.

2.6 PUBLIC COMMENTS

Presentations for CARD (Citizens for Alternatives to Radioactive Dumping) were made by J. Greenwald and G. Harris. Ms. Greenwald questioned the need to bring wastes into New Mexico and suggested use of monitored above-ground storage at generator sites as an alternative. Ms. Harris felt that the most important concern of New Mexico citizens was an established site for wastes in the event that retrieval is required. She also believed that it is important to address accidents in the Waste Retrieval Plan.

G. Amato, a private citizen, urged the Subcommittee to accept the recommendations of the attorney general and CCNS/SRIC.

A. Wiebolk, All People's Coalition, urged the use of other scientists to provide independent, unbiased review of DOE work.

Whipple noted that implementation of the Test Phase Plan has the potential for providing a better and safer facility. A test program is not antagonistic to safety.

S. Diaz D'Ouille, American Federation of State, County and Municipal Employees, Council 18, felt that DOE and its contractors who are involved in training emergency response personnel, had minimized risks in shipping wastes to WIPP. She urged very firm oversight over DOE activities.

L. Chaturvedi of the Environmental Evaluation Group (EEG) provided some general comments to the Subcommittee. He noted that EEG had not attempted to define direct relevance, but rather decided to wait and see how DOE and EPA addressed the issue. He noted that the bins used in the tests, which are proposed to validate the gas generation model, are not statistically representative of the wastes and the connection between the gas generation model and the bin test data had not been made in the Test Phase Plan. He further noted that an alcove test plan does not exist nor does a design for type 2 bins. A

majority of the test bins are scheduled to include sludges but a DOE facility to handle sludges is not scheduled to be available until 1994. He discussed the fact that the roof support system in Room 1, Panel 1, where the bin-scale tests are to be conducted, has a design life of up to seven years from July, 1991, but that two years have already passed.

The local chapter of the Sierra Club submitted a written statement but did not speak at the meeting. The statement is included in Appendix D.

2.7 EPA (COMPLIANCE CRITERIA)

As noted previously, EPA wishes the WIPP Subcommittee to review its activities related to developing compliance criteria for 40 CFR 191 at a subsequent meeting. To provide the Subcommittee with background on this, C. Petti (EPA/ORIA) provided a briefing to the group on work which EPA has recently initiated. The presentation is included in Appendix D.

3.0 Discussion of Issues

As a basis to begin developing a consensus among Subcommittee members, Whipple suggested that the group focus on four substantive issues. He felt that there are two additional issues where little discussion would be required to reach a consensus. The four substantive issues are as follows:

- What is the scope of the test phase on which EPA must make a determination of direct relevance?
- What is a good definition of "directly relevant?"
- What factors should be included in Test Phase Plan evaluation (e.g., completeness)?
- Should evaluation of the Waste Retrieval Plan include consideration of a site for waste disposal in the event that retrieval is required?

Whipple's two non-controversial issues are that accident scenarios should be included in the Waste Retrieval Plan, and that EPA should consider quality assurance and experimental design in evaluating the direct relevance of the experiments in the Test Phase Plan. A

consensus was reached by the Subcommittee on these two non-controversial issues. During the discussion, R. Neill made the point that the Waste Retrieval Plan should consider accident prevention as well as exploring accident scenarios.

In discussing the scope of EPA's review of the Test Phase Plan for the rule-making required by the WIPP LWA, the consensus of the Subcommittee was that the review should be limited to those tests at WIPP which involve radioactive/hazardous wastes. On the basis of the current Test Phase Plan, the rule-making would be limited to the bin-scale tests and the alcove tests. There was also a consensus that EPA should review and comment to DOE on other elements of the Test Phase Plan. Recognizing that it is a major undertaking to review all these other tests, the Panel felt that EPA should focus on those tests identified as most critical to the Performance Assessment. The importance of the actinide solubility tests to be conducted at LANL was cited as an example.

While it was generally agreed, from the outset, that EPA should employ completeness criteria in its review of the two plans, an issue which was discussed at length was the frame of reference for determining completeness of the Test Phase Plan. Are completeness criteria designed to evaluate individual experiments or the test plan as a whole? The discussion was engendered, in part, by the language of Section 5(d)(2)(A) of the LWA which states that "the Administrator shall approve the Test Phase Plan, or any modification to the plan, in whole or in part, if the Administrator determines that the experiments will provide data that are directly relevant to a certification of compliance with the final disposal regulations or to compliance with the Solid Waste Disposal Act." It was clear that the completeness criteria were applicable to individual experiments but it was less clear as to their applicability to the plan as a whole.

EPA said that a determination as to whether the information being developed by DOE was necessary and sufficient for a compliance demonstration vis-a-vis 40 CFR 191 and RCRA would be addressed at a later time. The current charge to the Subcommittee was to recommend completeness and evaluation criteria which can be used to make a determination that the Test Phase Plan describes experiments which are directly relevant. DOE noted that about 85 experiments had already been completed and these were not included in the Test Phase Plan. The Plan includes only studies currently in progress or soon to be undertaken.

Chaturvedi of EEG explained that the "Test Phase" is described in DOE's Test Phase Plan and in the WIPP Strategic Plan as the period during which technical data will be gathered to determine WIPP's compliance with long-term disposal standards. In policy statements and in testimony before the U.S. Congress, DOE has projected the test phase to begin with first emplacement of waste at WIPP. These two different approaches have created confusion and appear to have downgraded the significance of the very important non-waste experiments in progress at WIPP and the laboratory experiments being conducted at several sites using waste and radioactive materials.

The Subcommittee expressed concern as to the availability of Agency resources to support the LWA mandated activities. Werner noted that an assessment of direct relevance requires EPA to delve deeply into the underlying science. EPA (Gunter) said that adequate funds for FY 1993 had been transferred from DOE under the terms of the LWA, but that the situation in FY 1994 was less clear due to budgetary constraints imposed by the Administration. EPA currently has a hiring freeze in effect.

The Subcommittee deliberated at length as to a proper definition of "direct relevance." This included review of the definition proposed by DOE in their presentation (See Appendix D) and considerations as to the intent of Congress in drafting the language of the LWA. DOE said that Congress had deleted the word "necessary" from earlier draft legislation. Werner noted that Congress also deleted "useful" and compromised with "directly relevant."

Lehman proposed that DOE bear the burden of proof on what constitutes direct relevancy by explaining their rationale in the test plans. She also suggested that a broad definition of "directly relevant" be allowed to give DOE flexibility and to insure that EPA was not too prescriptive. She said that a directly relevant parameter need not be important in a sensitivity analysis as had been suggested by the New Mexico Attorney General's Office and by SRIC. This is because verification of conceptual models, validation of tests, and proposed new tests can all be directly relevant to compliance, but not contain sensitive parameters.

Ewing described the problem facing an experimentalist in differentiating between experiments which are directly relevant and those which are useful or of potential importance. He offered a hierarchy of tests, beginning with those for which a demonstration of direct relevance is fairly straightforward to those where such a demonstration is much more difficult, as follows:

- Experiments which furnish data (e.g., actinide solubility measurements)
- Experiments which test hypotheses (e.g., should thermodynamic or kinetic models be used to characterize actinide release to brine?)
- Experiments designed to test the validity of long-term extrapolations of the models (i.e., natural analog studies).
- Exploratory tests to look for unanticipated, unexpected, or synergistic effects.

Rather than specifically defining direct relevance, the Subcommittee decided to recommend criteria, which when applied to the Test Phase Plan experiments, would provide an implicit definition of the phrase.

Another area of substantive discussion was the need for EPA to make a judgement as to whether certain tests should be conducted at WIPP or elsewhere. EPA staff had taken the position that EPA would not evaluate the need for a test to be conducted at WIPP in its evaluation of the direct relevance of the test. Werner felt that it was the intent of Congress in the WIPP LWA for EPA to make such a judgement. He noted that the legislation was passed in an atmosphere of skepticism about the need for tests at WIPP in the wake of several independent reviews indicating inadequate justification by DOE for such tests. SRIC expressed opposition to the EPA staff position. Eventually, the Subcommittee reached a consensus that whether tests should be conducted at WIPP or elsewhere was not a separate explicit evaluation criterion, rather the question would implicitly be addressed in considering safety issues and the anticipated quality of experimental results (i.e., will the test data be limited by testing constraints imposed at WIPP?). Espinosa noted that mixed wastes can not be tested at WIPP until the State of New Mexico issues a RCRA Part B permit.

4.0 Conclusions/Consensus Reached

4.1 TEST PHASE PLAN

The Subcommittee adopted a set of criteria which were proposed by Lehman. These completeness criteria were a composite set which included relevant criteria from the drafts provided by the New Mexico Attorney General's Office, SRIC and EPA. The composite list was augmented and amended by the Subcommittee. Lehman suggested that some of the completeness criteria could also be used as evaluation criteria provided a degree of adequacy could be assigned to each criterion.

The completeness criteria are designed to determine the completeness of each proposed test/experiment and the completeness of the Test Phase Plan, itself, insofar as a determination of direct relevance is concerned. Completeness of the test program with respect to the sufficiency of the data to permit EPA to make a determination of compliance with 40 CFR 191 and RCRA is outside the scope of the current recommendations.

The Subcommittee decided that these completeness criteria should be rearranged into a hierarchy which, according to Ewing, one would use in evaluating any scientific proposal. The proposed criteria for determining completeness of the Test Phase Plan, are as follows:

1. **Statement of the scientific or technical issue to be addressed by the experiment.**
 - Is a clear, complete statement of the scientific purpose of the experiment provided?
2. **Statement of the scientific/technical justification for the experiment.**
 - Does the Plan contain a justification of each test in terms of such considerations as performance assessment needs, safety, or regulatory requirements?
 - Does the Plan offer an explanation of how the experiment is directly relevant to compliance with 40 CFR 191 or RCRA?
 - Are the data to be produced listed in DOE's Technical Needs Assessment Document or other documents?
 - Will the data be used directly or indirectly in the performance assessment as related to 40 CFR 191 or RCRA?
 - Does the Plan indicate how the tests will reduce uncertainty?
 - What are the consequences of not performing the test?
 - Does the Plan discuss currently existing data?
3. **Statement of Experimental Plan.**
 - Is the description sufficiently detailed to determine whether the required data can be obtained by the proposed experiment?

- Does the Plan include:
 - specifics as to the data to be generated
 - details of equipment to be used
 - location of equipment
 - experimental conditions such as temperature, pH, and humidity and how these parameters are controlled
 - theoretical basis for the experiment and equations in which the generated data are to be used
 - expected range and accuracy of results
 - listing of all assumptions and support for their use
 - range of validity of results
 - representativeness of the data (e.g., is it applicable to all wastes?)
 - form of the data (i.e., units of measurements)
 - quantity and type of waste to be utilized and generated
 - length of experiment and time when useful data will be available?
- Does a QA program exist for the acquisition of data?
- Is all relevant supporting documentation available?

4. **Statement of Feasibility.**

- Are the necessary materials and personnel available?
- When safety is considered, can the experiment be completed without compromising the quality or amount of data expected?
- Does the location of the experiment in any way compromise the quality or quantity of the data?
- Is the test feasible given the schedule?
- Has the experimental design been discussed in adequate detail to assess feasibility?
- Is the experiment a standard test or a prototype?
 - If the experiment is a prototype, does the Plan discuss work done to indicate that planned results are achievable?
- Are there test interferences between the proposed tests and other on-going tests?

5. Schedule.

- Will the experiments be completed in time for the intended use of the data?
- Does the schedule show when the data can be applied to compliance assessment?
- Do other tests need to be completed in order for the test results to be used?

6. Safety Analysis of Experimental Plan.

- Can the experiments be conducted safely?
- Are the locations of the experiments such that they remain safe for the specified duration of the experiment?
- Have safety concerns during the test been addressed?
 - Does the Plan address how the wastes will be emplaced and handled?
- Has a safety analysis been done and included in the experimental plan?

In setting forth these recommended criteria, the Subcommittee expressed the desire that the proposed criteria be sufficiently broad to allow flexibility in their application and that the burden of proof as to the direct relevance of the tests should rest with DOE.

The Subcommittee felt that it was not necessary for EPA to separately evaluate whether the tests should be conducted at WIPP. Rather it was felt that this question would be implicitly addressed in evaluating the Plan for elements such as safety and quality of scientific information against the proposed completeness and direct relevance criteria summarized above.

The Subcommittee recommended that EPA's rule-making on the direct relevance of the Test Phase Plan be limited to radioactive/hazardous wastes emplaced at WIPP during the test phase. EPA should submit comments to DOE on the other elements of the DOE Test Phase Plan not covered by the rule-making.

The Subcommittee wished to record its opinion that many of the tests not covered by the EPA rule-making are essential to the ultimate success of the WIPP Project and the fact that

these tests are not covered by the rule-making in no way diminishes their importance. Other proposed and on-going tests are expected to provide more important and higher priority information for performance assessment. Included in the list of key on-going tests are experiments involving retardation of radionuclides in the Culebra formation and a number of laboratory experiments. Critical tests which have been proposed include simulated radioactive waste tests, source term tests at LANL, the seven-well tracer test, and tests involving engineered barriers and waste form modification.

4.2 WASTE RETRIEVAL PLAN

With regard to the Waste Retrieval Plan, the Subcommittee concluded that, in order for EPA to make a determination of satisfactory retrieval, the Plan must -

- a. discuss accident scenarios, and
- b. specify the location to which retrieved wastes will be shipped.

A proposed set of completeness criteria for the Waste retrieval Plan was developed by Lehman. These criteria were a compilation of those deemed relevant from SRIC, EPA and the New Mexico Attorney General's Office. Some of these completeness criteria may also form the evaluation criteria if a degree of adequacy can be assigned.

The Subcommittee adopted these criteria. They are listed as follows:

1. Does the Plan describe all types and quantities of the wastes which are to be retrieved, including changes in waste form and composition resulting from tests or an accident?
2. Does the Plan include evaluation of on-design and rare but potentially severe, accident scenarios? Any accident scenario involving bin and barrel handling should include consideration of loading and unloading associated with transportation, normal operations and retrieval. Both surface and underground accidents should be examined.
3. Does the Plan explain how all the wastes described in 1. above would be retrieved under the scenarios considered in 2. above?
4. Does the Plan specify the available locations outside the State of New Mexico where retrieved wastes would be taken?

5. Does the Plan address permit requirements and the status of these permit requirements for disposal of the retrieved waste?
6. Does the Plan address risk reduction related to retrieval, handling, and transportation?
7. Will the retrieval plans affect any other on-going tests, delay schedules or cause a loss of data or an experiment should retrieval be required?
8. Does the plan address methods to prevent problems during retrieval including maintenance of room stability, provision of adequate radiation detection instrumentation, analysis of accidents, scheduling the timing and length of experiments?
9. Does the plan show that the underground locations will remain safe for the period of intended use, to facilitate easy retrieval?

5.0 Action Items

- Although the time of the next meeting has not yet been set, the Subcommittee urged EPA to pick a date as soon as possible, since scheduling of meetings during the summer is difficult.
- The topic for the next Subcommittee meeting is expected to be criteria to be used by EPA in evaluating compliance with 40 CFR 191.
- The Subcommittee requested that EPA provide a "Gantt Chart" showing the schedule and interrelationships of various DOE, EPA and NACEPT Committee activities.

APPENDIX A
WIPP SUBCOMMITTEE MEMBERS²

² Those attending May 3-4 meeting in Albuquerque, NM are indicated with an asterisk.

NACEPT
WASTE ISOLATION PILOT PLANT (WIPP) COMMITTEE
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As of April 14, 1993

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APPENDIX B
LIST OF ATTENDEES

National Advisory Council for Environmental Policy and Technology

WASTE ISOLATION PILOT PLANT (WIPP) SUBCOMMITTEE MEETING

**Holiday Inn Midtown
2020 Menaul, NE
Albuquerque, New Mexico 87107
May 3-4, 1993**

Attendees

Name	Company	Address	Phone Number
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B-2 Amato, Geraldine	C.A.R.D.	P.O. Box 951 Albuquerque, New Mexico 87103-0951	(505) 266-2663
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Bataro, Ravi	U.S. Department of Energy/WPIO	P.O. Box 3090 Carlsbad, New Mexico 88220	(505) 885-7313
Belin, Letty	New Mexico Attorney General's Office	P.O. Drawer 1508 Santa Fe, New Mexico 87504	(505) 827-6032
Bertham-Howey, Sharla	Sandia National Laboratories	1515 Eubank, SE Albuquerque, New Mexico 87123	(505) 844-0330
Byrum, Chuck	U.S. Environmental Protection Agency	1445 Ross Avenue Dallas, Texas 75202-2733	(214) 655-7535

WASTE ISOLATION PILOT PLANT (WIPP) SUBCOMMITTEE MEETING**Holiday Inn Midtown • Albuquerque, New Mexico****May 3-4, 1993 • Attendees****Page Six**

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Sorenson, Jay	Sierra Club	2800 Charleston, NE Albuquerque, New Mexico 87110	(505) 884-4314

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Stevens, Aldred L.	Sandia National Laboratories	P.O. Box 5800 Albuquerque, New Mexico 87115	(505) 844-1849
Stroud, Cliff	DOD/Carlsbad	1008 W. Riverside Carlsbad, New Mexico 88220	(505) 887-0637
Swift, Peter	SNL/TRI	5000 Marble NE, Suite 222 Albuquerque, New Mexico 87110	(505) 266-5678
Thurber, Bill	Sanford Cohen & Associates, Inc.	1350 Beverly Drive McLean, Virginia 22101	(703) 893-6600
Tollison, Jim	SAIC	2109 Air Park Road SE Albuquerque, New Mexico 87106	(505) 247-8787
Trusillo, Tony	U.S. Department of Energy/WPIO	6501 Americas Parkway Albuquerque, New Mexico 87110	(505) 875-5984
Van Camp, Scott	U.S. Department of Energy	EM-34, 1000 Independence Avenue Washington, DC 20585	(301) 903-7209
Weiner, Ruth	EEG	7007 Wyoming NE Albuquerque, New Mexico 87109	(505) 828-1003
Weinstock, Larry	U.S. Environmental Protection Agency	401 M Street, SW Washington, DC 20460	(202) 233-9310
Wentz, Chris	State of New Mexico Radioactive Waste Task Force	2040 Pacheco Street Santa Fe, New Mexico 87505	(505) 827-5950
Werner, James*	Natural Resources Defense Council	1350 New York Ave., NW, Suite 300 Washington, DC 20005	(202) 783-7800

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Whipple, Chris*	ICF Kaiser Engineers	1800 Harrison Street, 7th Floor Oakland, California 94612	(510) 419-5516
Wiltshire, Susan*	JK Research Associates, Inc.	77 Fox Run Road Hamilton, Massachusetts 01982	(508) 468-7917
Zimmerman, Marvin	Contech	6301 Indian School Road, NE Albuquerque, New Mexico 87110	(505) 881-0607

***Indicates a WIPP Subcommittee Member.**

APPENDIX C
NACEPT MEETING AGENDA

Schedule for NACEPT Meeting
Holiday Inn Midtown
2020 Manual, NE
Albuquerque, New Mexico

MONDAY MAY 3

- 9:00 - 9:10 Meeting Opened by Designated Federal Official
- 9:10 - 9:20 Welcome by Margo Oge (also discuss EPA's goal for meeting)
- 9:20 - 9:30 Welcome by Chairperson Susan Wiltshire (discuss agenda and how meeting will be run)
- 9:30 - 10:20 EPA presentation of Options Paper (leaving 15 minutes for questions)
- 10:20 - 10:30 Break
- 10:30 - 11:00 DOE presentation (20 minutes talk, 10 minutes questions)
- 11:00 - 11:30 CCNS/SRI presentation (20 minutes talk, 10 minutes questions)
- 11:30 - 12:00 Attorney General's Office presentation (20 minutes talk, 10 minutes questions)
- 12:00 - 12:30 City of Carlsbad presentation (20 minutes talk, 10 minutes questions)
- 12:30 - 1:30 Lunch
- 1:30 - 4:00 Discussion by Committee
- 4:00 - 4:30 Open Mike for Public Comments

Break for Tuesday

TUESDAY MAY 4

- 9:00 - 9:10 Meeting Opened by Designated Federal Official
- 9:10 - 9:15 Welcome by Chairperson Susan Wiltshire
- 9:15 - 10:50 Committee discussion
- 10:50 - 11:00 Break
- 11:00 - 1:00 Committee Discussion

1:00 - 2:00	Lunch
2:00 - 2:30	EPA presentation on Compliance Criteria (preview for next time 20 minutes presentation, 15 minutes questions)
2:30 - 3:00	Discussion and finalization of Committee Recommendations
3:00 - 3:15	Wrap up and Good bye
End Meeting	