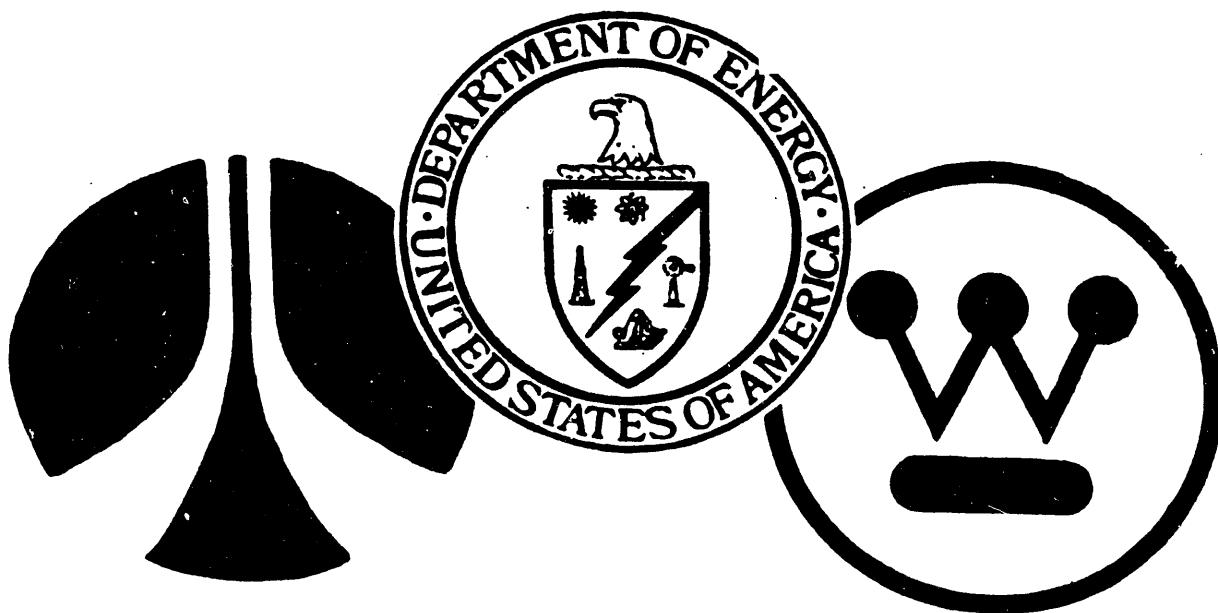


JOINT INTEGRATION OFFICE
INDEPENDENT REVIEW COMMITTEE
ANNUAL REPORT

1985



DEPARTMENT OF ENERGY
ROCKWELL INTERNATIONAL
WESTINGHOUSE

JOINT INTEGRATION OFFICE
ALBUQUERQUE, N.M.

AUGUST 1986

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Joint Integration Office
INDEPENDENT REVIEW COMMITTEE
Annual report
1985

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PREFACE

Comprised of seven persons with extensive experience in the issues of nuclear waste, the Independent Review Committee (IRC) provides independent and objective review of Defense Transuranic Waste Program (DTWP) activities managed by the Joint Integration Office (JIO), formerly the Defense Transuranic Waste Lead Organization (TLO). The Committee is ensured a broad, interdisciplinary perspective since its membership includes representatives from the fields of nuclear engineering, nuclear waste transportation, industrial quality control, systems and environmental engineering and state and local government.

The scope of IRC activities includes objective overall review of specific TLO plans, projects and activities, and technical review of particular research and development projects. The Committee makes specific suggestions and recommendations based upon expertise in the field of TRU Waste Management. The IRC operates as a consulting group, under an independent charter providing objective review of program activities.

IRC MEMBERSHIP

The membership of the Independent Review Committee during 1985 included strong interdisciplinary representation:

Stanley E. Logan, Ph.D. (IRC Chairman)

President

S. E. Logan and Associates, Inc.
Santa Fe, NM

William A. Brobst

President

The Transport Environment
Kitty Hawk, NC

Julie M. Jordan

Senior Project Manager

National Conference of State Legislatures (NCSL)
Denver, CO

Howard B. Kreider, Jr.

President

HBK Quality Consultants, Inc.
Centerville, OH

Roy G. Post, Ph.D.

Professor of Nuclear Engineering
University of Arizona
Tucson, AZ

Robert W. Ramsey

Consultant

Germantown, MD

D. Bruce Wilson, Ph.D.

Professor, College of Engineering
New Mexico State University
Las Cruces, NM

See Appendix B for short biographies of 1985 IRC members.

LIST OF IRC ACTIVITIES IN 1985

IRC Meetings During 1985

1. IRC meeting at the Joint Integration Office
March 5, 1985
Albuquerque, NM
2. IRC meeting in conjunction with TRU Waste Program
Update Meeting No. 10.
April 23-24, 1985
Denver, CO
3. IRC meeting
June 20-21, 1985
Santa Fe, NM
4. IRC meeting in conjunction with the TRU Waste Program
Update Meeting No. 11.
October 1-3, 1985
Las Vegas, NV
5. IRC meeting at the Joint Integration Office
December 17-18, 1985
Albuquerque, NM

IRC Representation at Specialized Meetings During 1985

1. UK/US Workshop on Reduction in Waste Arisings
IRC represented by R.G. Post
May 13-15, 1985
Oak Ridge, TN
2. CH TRU Waste Gas Generation and RH TRU Waste Workshops
IRC represented by S.E. Logan.
December 2-3, 1985
Albuquerque, NM

GENERAL COMMENTS

IRC Charter Ammendments

At the IRC meeting held December 10-11, 1984, recommended revisions to the IRC Charter were prepared by the IRC and provided to the JIO. These revisions primarily related to conflict of interest but included some rearrangement for clarity and updated organizational responsibilities associated with the creation of the JIO. A draft of the revised charter was presented to the IRC at the first meeting in 1985 (March 5, 1985). Only minor revisions to this draft were suggested by the IRC. The charter as ammended is provided in Appendix A to this report.

Redirection of IRC Mission

Some redirection of the IRC was presented by the JIO at the October 1-3, 1985 meeting. Instead of examining broad areas, the IRC was requested to focus on particular issues, documents, and plans as assigned. One or two areas for review will be assigned during each quarter. Background information will be provided to the IRC prior to caucus. This material will consist of applicable reports and/or memos in advance of each IRC meeting, plus briefings by various representatives at IRC meetings. The IRC will provide written opinions and recommendations.

The IRC may suggest areas of concern, and the JIO will determine which if any of these suggested areas will be assigned for review.

IRC Continuity Problem

The normal membership of the IRC is seven members, as provided in the charter. At the October 1-4, 1985 IRC meeting, an assignment was made to study and make recommendations on TRUPACT double containment and continuous filtered venting issues. This study was to involve individual interaction between members, followed by a meeting near the end of the year to prepare a draft report. However, the contracts of three members: J. M. Jordan, W.A. Brobst, and R.W. Ramsey, expired at the end of October, 1985. Ms. Jordan was about to change job affiliations, away from the direct public sector role she had, and her contract was not renewed. A recently promulgated rule by the DOE required legal department review of contracts for former employees of the DOE. Several years ago, Brobst and Ramsey were DOE employees and their contract renewals were therefore delayed. Approval of these contract renewals required more than five months (through March 1986), reducing the IRC strength from seven to four members in the interim. This disrupted task planning and completion of a draft report for the assigned containment and venting issues.

The IRC notes that the requirement of several months for processing contracts for former employees of the DOE jeopardizes such employees from being brought into the IRC in the future. This is an issue for the JIO/DOE to address.

DTWP Contractor Update Meetings

The IRC expresses appreciation for the opportunity to attend the update meetings and obtain first hand information. Overall, it is observed that the DOE is running a good program. Many of the concerns that have been expressed by the IRC have been or are being addressed. The IRC is pleased to see progress in addressing RH waste transportation and identifying RH waste issues.

TOPICS REVIEWED DURING 1985

Topics reviewed by the IRC during 1985 are summarized in following paragraphs. For each topic, the meetings at which the topic was considered are indicated by numbers 1-5, corresponding to the list of IRC meetings presented earlier in this report.

1. TRU WASTE Certification (1,3,4)

The IRC expressed concern over statistics in the RTR/NDA process, recommended providing for QA and health physics training of operators, and recommended a WIPP facility for NDA/NDE verification.

In response, the IRC was informed that confidence level and error bands are being measured but not made public. RTR appears to have above a 95% confidence level for detecting unacceptable contents in drums. Health physics training is specified in QA plans and is provided to all personnel working with radioactive materials. Audit programs will be an ongoing program at sites. The mobile system will be used at WIPP as needed. The IRC believes that such checks should confirm that the statistical performance is being maintained.

The IRC recommended that a digitized pattern recognition approach be considered to automatically alert RTR operators to such things as the presence of liquids (pattern changes from one instant to the next).

2. NEPA Strategy Document (1)

A NEPA strategy update was provided and the NEPA Strategy and Planning Document (TLO-85/7) was distributed. The IRC notes that previous IRC recommendations have apparently been incorporated, but the IRC has not formally reviewed the published strategy document.

3. TRUPACT-I Value Analysis (1,2,5)

W.A Brobst presented a review of activities of the TRUPACT Value Analysis Group. This was supplemented by presentations at TRU Waste Program Update Meetings. Results obtained by the structured approach of the value analysis procedure show potential benefits by this activity. The IRC understands that DOE has substantially accepted the TRUPACT Value Analysis Task Force report recommendations; this is a good engineering decision with which the IRC concurs.

4. Fabrication of TRUPACTS (1,3,4)

The IRC expressed concern regarding the decision to manufacture and/or assemble TRUPACTS at the WIPP. The concerns are over higher costs, potential schedule delays and difficulty in

achieving quality.

In response, the IRC was informed that components will be manufactured elsewhere and brought in and assembled at WIPP. The foaming will be done at WIPP. The IRC is still concerned.

5. Thermal Testing of TRUPACTS (1,3,4)

The IRC has noted that various intervenor groups, as well as the Association of American Railroads, have stated publicly that Type B test requirements are not sufficiently representative of true transport accident conditions. The IRC is concerned that at some future time, intervenor groups may delay the program by demanding that TRUPACTS be capable of meeting DOT requirements. The IRC recommended that an engineering evaluation be made and documented of how well TRUPACTS would fare under DOT tank car thermal and puncture tests, to avoid potential future program interruption. This does not imply retesting, but would involve further analysis of available data.

In response, the IRC was informed that Type B packaging regulations represent practical accidents and that the TRUPACT will meet all DOE, NRC, and DOT requirements for radionuclides but not necessarily for liquids in tank cars. The IRC considers that this response does not really address the issue.

6. Cost/Schedule Optimization (1,3,4)

The IRC expressed concern that the tight schedule for completion of the cost/schedule optimization study would limit the treatment to "hard" inventory numbers and would preclude evaluation of certain subjective factors as data inputs, e.g. public acceptance or sociopolitical impacts. Institutional issues such as additional health, safety, and transportation risks relate to strategies such as additional volume reduction and immobilization.

In response, the IRC was informed by the JIO that such institutional concerns are being or will be addressed. The sites reviewed original and updated data. Briefings are being held with states. An IWG has been established to review issues. The IRC has not observed any evidence indicating that any options other than the minimum processing strategy have been considered.

7. Public Information and Education (1,3,4)

The IRC notes the significance of the WIPP facility as a public demonstration of handling radioactive waste and recommended that a public information center be established at the WIPP.

In response, the IRC was informed that there currently are two public information sites in Carlsbad, though not at the WIPP site. The IRC believes that the actual WIPP operation must be understood by the public and the public should be impressed with

the excellence of care and attention given to activities at the site.

8. Vehicle Maintenance Facility (2)

The need for a vehicle maintenance facility for tractors and trailers was discussed. The IRC recommended that such a facility be located in Carlsbad, NM. This would utilize labor skills which are available in the area and provide a benefit to the local economy.

No response was provided.

9. Reduced Waste Arisings (3)

R.G. Post attended the UK/US Workshop on Reduction in Waste Arisings, May 13-15, 1985 in Oak Ridge, TN, and presented a report to the IRC. This report was well received; the IRC is pleased with the good progress in this area. Post suggests that a compilation of successful administrative procedures, controls, and incentives would be a useful document.

10. Decontamination (3,4)

The IRC noted confusion as of April 1985 over who will do decontamination of TRUPACTS and heard opinions that decontamination could not be done at WIPP because of institutional agreements to not generate liquid wastes at WIPP. The IRC recommended that WIPP be set up to provide for TRUPACT decontamination and maintenance, and that procedures be established.

In response, the IRC was informed by JIO that WIPP will be responsible for decontamination of TRUPACTS. As appropriate, this will be done at WIPP or if found elsewhere, WIPP may send a team. A TRUPACT maintenance facility is being constructed at WIPP. The facility will have a holding tank for contaminated liquids. WIPP will solidify liquid waste or bring in a contractor for the purpose. The term "waste generation" is considered by DOE to not include waste generated by decontamination. This indicates good progress since the April 1985 status. Procedures are being developed.

11. Gas Generation (3,4)

The IRC raised questions about how void volumes were estimated and the effect of having a breached inner container (when punctured for venting) on safety of shipment and long-term storage of TRU materials.

In response, the IRC was informed that there is substantial work underway related to the gas generation issue. Sealed liners will require venting in high Curie containers (level not specified). X

Diffusion through inner liners is adequate for "normal" Curie levels, assuming the drum itself is vented. Hydrogen generation up to 30 % of volume can occur, but vents work very well. S.E. Logan represented the IRC at the Gas Generation Workshops in December 1985 and reported to the other committee members. Gas generation is a continuing issue into 1986.

12. TRUPACT Containment and Venting Issues (4,5)

DOE order number 5480-3 requires that shipments of nuclear wastes follow the applicable packaging standards of the NRC (10 CFR 71). 10 CFR 71.63 states that plutonium in excess of 20 Curies per package must be packaged in a separate inner container placed within outer packaging that meets the requirements of a Type B package for material in normal form. 10 CFR 71.43 states that a package must not incorporate a feature which is intended to allow continuous venting during transport. Under accident conditions, the drums and boxes within a TRUPACT are not expected to adequately survive to meet the inner container requirements and the TRUPACT system is therefore considered to be a single containment system. Filtered vents on selected drums are being considered. Further, the TRUPACT has three filtered vents. There are containment and venting issues to resolve. A briefing on these issues was presented to the IRC at the October 1, 1985 meeting, and the IRC was requested to look into the issues during the last quarter of 1985.

The IRC effort seeks to determine the background, scope, and intent of the two subject regulations. Are any of the TRU waste forms equivalent to any of the materials for which a double containment requirement was intended when the rule was promulgated? Does a diffusion filter constitute a "vent" in the meaning of the regulation?

The IRC notes that some of the options involving adding containment or otherwise limiting contents reduce the payload and increase the number of shipments. There are trade-offs concerning the impact on total risk. It is further noted that anything done in the way of volume reduction and void elimination by incineration and immobilization serves to reduce: 1) gas generation, 2) the need for or quantities vented, 3) need for double containment, and 4) the number of shipments required.

The IRC will submit a letter report in early 1986 reviewing the containment and venting issues, furnish opinions, and provide recommendations.

SUMMARY OF RECOMMENDATIONS DURING 1985

The IRC made numerous recommendations during 1985, summarized as follows:

1. Establish a procedure for handling contaminated containers, including consideration of decontaminating on the WIPP site versus overpacking and return, and an agreed-on system for agreeing on level of contamination.
2. Include subjective factors such as public acceptance and sociopolitical inputs in the cost/schedule optimization study.
3. Extend the value analysis procedure, which was used by the TRUPACT Value Analysis Group, to other areas of the TRU waste program.
4. Make a value analysis study for fabricating TRUPACTS at the WIPP versus fabricating at existing facilities.
5. Evaluate and document results of expected performance of TRUPACT against DOT fire and puncture tests. (Title 49, Section 179.105-4 and -5).
6. Establish a public information center at the WIPP.
7. Locate a vehicle maintenance facility for tractors and trailers in Carlsbad, NM. This would utilize available labor skills and benefit the local economy.
8. Prepare a document for reduced waste arisings which is a compilation of successful administrative procedures, controls, and incentives.
9. Consider setting up an IWG to look into the matter of plans, procedures, and standards for contamination control and decontamination of shipping containers, shipping sites and WIPP handling areas.
10. Make arrangements for sending IWG reports to selected IRC members.
11. Send appropriate progress reports to IRC members.
12. Provide timely and comprehensive feedback on the recommendations, comments, and questions that the IRC submits in its meeting reports.
13. Provide a digitized pattern recognition approach for RTR to automatically reveal such things as liquids.
14. Continue authorization of individual IRC members to do individual study and attend related TRU waste meetings.

15. Avoid introducing extraneous waste category names. Specialized subcategories of "special-case" waste should be subsets of the larger category, so identified, and have quantities (volumes, number of packages, Curies, etc.) which are additive to agree with the larger category.

The IRC review of the TRUPACT double containment and filtered venting issues was still in progress at the end of 1985. Recommendations on these issues will be presented in a separate letter report in 1986. The following recommendations by the IRC relate to the information gathering phase of the study during 1985:

16. Authorize members of the IRC to pursue the documentation leading up to the NRC rulemaking in 10CFR 71.43 and 10CFR 71.63.
17. Furnish Packaging IWG and Gas Generation IWG reports to the IRC.
18. Direct an IRC representative to represent the IRC at the Gas Generation workshops on Dec. 2-4.
19. Provide to the IRC, an estimate of distribution (activity, contents, etc.) of "gas generating" drums and the fraction of drums and boxes containing more than 20 Ci.

PROPOSED ACTIVITIES FOR 1986

During the first quarter of 1986, the IRC will complete the letter report providing discussion and recommendations on the TRUPACT double containment and filtered venting issues.

The problems of defining and exploring the extent of gas generation in TRU waste and of developing solutions to those problems, continue to concern the IRC. The problems are pervasive, with interactions between waste handling, storage, preparation, processing/treatment, and transport. The IRC recommends that this matter be further examined by the committee during 1986.

System risk assessment is proposed. This would evaluate the overall benefits (not limited to transportation) of various processing, handling and packaging alternatives and assess these relative to their costs.

Other activities will result from specific assignments made by the JIO to the IRC during the course of the year.

APPENDIX A

CHARTER

Independent Review Committee
for the
Defense Transuranic Waste Program
January 1985 (Revised)

I. PURPOSE

The Independent Review Committee (IRC) is formed to provide independent and objective review of the activities of the Defense Transuranic Waste Program (DTWP) managed by the Defense Transuranic Waste Lead Organization (TLO). Primarily, the IRC will provide a forum for the exchange of ideas and information between the Transuranic Waste Systems Office (TWSO) and the academic and professional communities. To this end, the IRC will bring a broad interdisciplinary perspective to the review of TLO activities.

II. SCOPE

The scope of responsibility for the IRC will include:

- o Objective reviews and evaluations of current TLO plans, projects and activities in reference to national defense waste management policies and actions developed by the President, the Congress, the executive branch and other affected interests.
- o Technical review and analysis of research and development projects supporting transuranic waste management, especially review of the systems analysis and integration of program elements and tasks.

III. ORGANIZATION

SUPERVISION. The Defense Transuranic Waste Lead Organization (TLO) is comprised of the U.S. Department of Energy, Albuquerque Operations Office, and its lead contractor, the Transuranic Waste Systems Office (TWSO). The TLO contracts with members of the IRC and provides management and supervision of IRC activities. The TLO remains solely responsible for the selection and appointment of members with appropriate experience to the IRC.

MEMBERSHIP. Members of the IRC shall be selected based on technical or specialized experience, credentials, or background relevant to the activities of the TLO. The IRC members will serve on a rotating basis for a term up to three years; the size of the IRC will be limited to seven members. Membership appointments will be staggered so that approximately two or three members will change annually. The TLO shall appoint a coordinator to assist the IRC in meeting arrangements and other activities; the IRC Coordinator shall serve as an ex officio member of the IRC.

OBJECTIVITY. It is essential that IRC members possess background and experience to be familiar with radioactive waste technologies and issues. At the same time, IRC members must be free to provide objective review the activities of the Defense Transuranic Waste Program (DTWP).

Because of their background and experience, IRC members are in a position to assess problems and to provide technical advice contributing to improvements in the management of defense nuclear wastes beyond the activities of the IRC. This opportunity could also lead to either actual or the appearance of potential conflict of interest. Accordingly, the following guidelines shall apply in ensuring the objectivity of IRC members:

- o IRC members shall identify to Rockwell International/JIO and to the chairman of the IRC instances where their current contract work or employment may affect their objectivity in reviewing and commenting on DTWP activities. In addition, whenever an IRC member has gainful interest in some topic or activity of the DTWP, a disclosure statement is required providing sufficient detail for RI/JIO to assess whether the interest would preclude the objectivity of the IRC member.

- o In instances where IRC activities might provide IRC members with information of commercial value to themselves or the companies with which they are affiliated, ethical and professional standards require that the IRC members avoid using their positions on the Committee to seek commercial contracts from the DTWP while still members of the IRC. In addition, IRC members shall avoid situations where they might use their IRC membership to obtain an unfair commercial competitive advantage over other entities which do not have access to limited information.
- o In any case where a question of conflict of interest may arise concerning an IRC member, that member shall abstain from IRC discussion or ballots on that particular case. In the event that an IRC member cannot or chooses not to dissociate himself from a conflicting activity, he shall resign from the IRC.
- o RI/JIO shall be responsible for making the final decision as to any existing or potential conflict of interest on the part of any IRC member, and for initiating appropriate action.

OFFICERS. Annually, the IRC members will elect a chairman by majority vote. A quorum of at least a majority of members must be present to elect the chairman.

IV. IRC ACTIVITIES

REVIEWS. In meeting the objectives of the charter, the IRC shall examine technical and institutional aspects of individual research and development projects, and shall evaluate the progress of TLO-sponsored activities consistent with the scope of responsibility for the IRC. Direct IRC contact with individual waste-generating or storage sites or with individual research project personnel, or with individuals associated with program activities of the DTWP shall be coordinated with the Defense Transuranic Waste Lead Organization.

MEETINGS. The IRC will meet approximately once each quarter. Meetings will be scheduled by the Defense Transuranic Waste Lead Organization as required.

REPORTS. Individual reports of IRC reviews, meetings attended, or other activities will be provided to the TWSO following each activity. Reports will be submitted in original form to the TWSO with copies to IRC members. The reports will include comments and recommendations by the IRC on the projects and issues under review. If individual IRC members disagree with the report as written, there shall be the option to file a minority report through the IRC chairman to the TLO. In addition, the IRC chairman shall prepare an annual report covering activities and accomplishments of the IRC during the preceding year; the annual report shall be filed with TWSO by February 15 of the following year.

APPENDIX B

IRC MEMBERSHIP

William A. Brobst

Mr. Brobst is President of The Transport Environment, Inc., of Kitty Hawk, NC, a consulting firm specializing in the safety of transporting of hazardous materials. In addition to being certified by the American Board of Health Physics and the Illinois Board of Medical Physics, he was formerly the Chairman of the National Academy of Sciences Committee on Transportation of Hazardous Materials. He has served with the DOE in Washington, D.C. as Chief of Transportation, and held similar positions with the AEC and the Energy Research and Development Administration. Mr. Brobst has also served as Deputy Director of the Office of Hazardous Materials in the U.S. Department of Transportation where he coordinated the development of safety regulations in transportation of hazardous materials by all modes of transportation. He has published papers on nuclear energy and papers concerning the hazardous materials field.

Julie M. Jordan

Through 1985 Ms. Jordan was a Senior Project Manager on the staff of the National Conference of State Legislatures, a state-supported organization providing technical assistance and educational programs to the nation's state legislatures. She has worked in organizing seminars and publication dealing with state and local concerns in hazardous waste management including nuclear wastes. She has direct experience maintaining important liaisons with industry, regional, national and environmental organizations in this area. In addition, Ms. Jordan has performed contract research work for the U.S. Department of Energy and the U.S. Department of Transportation. Ms. Jordan joined the NUS Corporation at the end of 1985.

Howard B. Kreider, Jr.

Mr. Kreider is the President of HBK Quality Consultants, Inc. of Centerville, Ohio. Mr. Kreider has 24 years of engineering experience working as an administrator and consultant in the field of nuclear waste management. He is a member of the American Society of Quality Control Engineers and a past member of International Nuclear Materials Management. As a Supervisor of Quality Control Engineering with Monsanto Research Corporation, Mr. Kreider selected and trained engineers to provide quality control guidance for all nuclear operations. He supervised the Special Materials Control group in interpreting and enforcing 49CFR and other documents related to the packaging of hazardous materials. He also has served as an advisor on quality programs, and conducted surveys to assure compliance with DOT specifications for TRU container components. Mr. Kreider has written quality plans for the Mound facility and has negotiated Quality Assurance plans with the DOE, OSNP and specific design agencies.

Stanley E. Logan, Ph.D.

Dr. Logan is President of S.E. Logan and Associates, Inc., of Santa Fe, NM, a consulting and engineering services company, specializing in energy and environmental studies, and risk and safety analysis. He has 36 years of experience in engineering, including probabilistic risk assessment and nuclear waste repository risk and consequence analysis. He was an Associate Professor of Nuclear Engineering at the University of New Mexico for four years. Dr. Logan is a member of the American Nuclear Society, the American Institute of Aeronautics and Astronautics and the Society for Risk Analysis. Dr. Logan originated and directed development of the AMRAW methodology and computer code for assessment of radioactive waste management; he has applied the AMRAW methodology to the Partitioning and Transmutation Program at the Oak Ridge National Laboratory, long-term risk assessment for the Basalt Waste Isolation Project, and a consequence analysis study of the Waste Isolation Pilot Plant and a study of consequences of renewed volcanism at a repository in tuff, for Sandia National Laboratory. Dr. Logan also has worked on cryogenic systems, developed static seals for extreme environments, chemical and nuclear rockets, and submarine reactor refueling and control drum servicing equipment.

Roy G. Post, Ph.D

Dr. Post is a professor of nuclear engineering in the Department of Nuclear & Energy Engineering at the University of Arizona, Tucson, AZ. He has organized and chaired 12 International Waste Management Symposia at the University of Arizona. He is editor of Nuclear Technology, the American Nuclear Society's archival journal devoted to development and applications of nuclear research. He is also an active member of the Fuel Cycle and Waste Management Committee of the ANS. In addition to 25 years at the University of Arizona, he has worked in the industrial and nuclear fields for approximately 15 years, giving him the practical experience to assess research and development activities.

Robert W. Ramsey

Mr. Ramsey is currently a private consultant in the field of waste management and remedial action. He recently was Vice President for Technical Development for Nuclear Energy Services (NES) of Danbury, CT. Mr. Ramsey has 30 years experience in the nuclear field, and extensive background in nuclear waste management. He Joined NES after retirement from DOE in 1982, providing guidance in the development of industrial processes of waste treatment. Prior to that, he spent 26 years in the Department of Energy and its predecessor agencies. This included 11 years in production and reactor development programs at the Savannah River Plant, a year as the AEC's Chief of Technical Policy Branch in the Division of Operations Analysis and Forecasting, and 3 years as the U.S. AEC scientific representative to Canada. Later he was Chief of the Waste and Scrap Management Branch and the Development Branch in the AEC Headquarters Division of Waste Management and Transportation.

D. Bruce Wilson, Ph.D.

Dr. Wilson has been an engineering professor at New Mexico State University in Las Cruces, NM since 1964. Additionally, he serves as a consultant to the New Mexico Environmental Improvement Agency, the New Mexico Environmental Institute, and the Governor's Committee on Radioactive Waste Repository for New Mexico. He is aware of both engineering and environmental issues in New Mexico as they affect nuclear waste management, and particularly defense transuranic waste management.

APPENDIX C

MEETING AGENDA

Independent Review Committee Meeting
March 5, 1985

Review Revisions to IRC Charter
TRU Waste Certification Update
NEPA - Strategy Update
TRUPACT-I Value Analysis, A Status Review
TRUPACT-I Firetesting
IRC Caucus

Independent Review Committee Meeting
and Defense TRU Waste Program Update Meeting #10
April 23-24, 1985

April 23, 1985 (abbreviated agenda)

Rockwell International and Westinghouse - JIO
Headquarters R&D Status
WIPP Update

Program Management and Analysis
QA Introduction
FY-86 and FY-87 Budget Analysis
NEPA Documentation
NEPA Documentation Site Status
Foreign Exchange
SWEPP Status
PREPP Status

CH Waste Support
WRAP Status
TRU Waste Facility Status
TRUPACT Status
TRUPACT Value Engineering Analysis
Container Regulations
Future Direction and Discussion

IRC Meeting
Contamination
TRUPACT Testing
IRC Representation at Workshops

April 24, 1985 (abbreviated agenda)

Concurrent Working Sessions, a.m.
Certification
Reduced Waste Generation

Concurrent Working Sessions, p.m.
Special Case and RH Waste Strategy; Buried Waste Studies
ICB Interface Management
TRUSIM Validation Meeting

IRC Caucus

Independent Review Committee Meeting
June 20-21, 1985

June 20, 1985

DTWP Communication and Information Review
Cost-Schedule Optimization
Report on Reduced Waste Generation Workshop
TRUPACT Contamination
Review IRC Reorganization Plans
IRC Caucus

June 21, 1985

Future Activities Discussion
Review of Continuing Issues
IRC Caucus

Independent Review Committee Meeting
October 1, 1985
and Defense TRU Waste Program Update Meeting #11
October 2-3, 1985

IRC Meeting, October 1, 1985

Review IRC Charter and Mission
Review Pending Issues (Nine Issues)
Review TRUPACT Containment and Venting Issues
IRC Caucus

Update Meeting October 2, 1985 (abbreviated agenda)

Headquarters Overview
FY 86 and FY87 Program Direction and Budget
WIPP Update
TRUPACT Prototype Fleet Activities
Cost/Schedule Optimization
TAGR and NEPA Documentation Status
SWEPP Update
PREPP Update
SWEPP/PREPP Technology Transfer
WRAP Update
TWF Update
Certification Status
CYWP's and QA

Concurrent Working Sessions, p.m.

Certification
Interface Control Board
Inventory Work Off Plans

Update Meeting, October 3, 1986 (abbreviated agenda)

Foreign Exchange
RWG Program Status and Direction
TRUEX
Mobile NDE/NDA
RH Demonstration Plan and Strategy
Engineering for RH Waste
RH Process Engineering and Canister Welding
SC Waste Strategy
Greater Confinement Disposal
Buried Waste Studies

Concurrent Working Sessions, p.m.

RH Waste Cost/Schedule Optimization
TRUPACT Technical Team

IRC CAUCUS

Independent Review Committee Meeting
December 17-18, 1985

December 17 1985

Briefing on Transportation Reulations
Update on Double Containment and Continuous Venting Issues
Briefing on IWOP Data Table
IRC Caucus

December 18, 1985

Guidance on IRC Report
IRC Caucus
Discussion of IRC Future activities.

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