SUMMARY/MINUTES OF THE
MEETING OF ACRS SUBCOMMITTEE ON
WASTE MANAGEMENT
WASHINGTON, D.C., MAY 18-19,1987

Purpose:

The Waste Management Subcommittee met on Monday and Tuesday, May 18 & 19, 1987, to review the following topics: (A) High-Level Waste: 1) impact of NMSS reorganization on waste management program; 2) status report on NRC review of the QA program of the U.S. Department of Energy; 3) waste acceptance activities regarding the processing of radioactive wastes into glass; 4) update on the National Bureau of Standards' waste package program; 5) Generic Technical Positon (GTP) on Qualification of Existing Data for HLW Repositories; 6) GTP on Peer Review for HLW Repositories; and 7) report on the Harford, Washington (BWIP) hydrology meeting. (B) Waste Management Research: 1) demonstration of performance modeling of a LLW shallow land burial site -- the nitrate disposal pit site at Chalk River, Canada, and 2) control of water filtration into near surface LLW disposal units. (C) Low-Level Waste: 1) update on status of mixed wastes issue, and 2) greater than Class C wastes.

The various topics were reviewed in the order shown on the Final Agenda (Attachment 1).

The meeting was held in Room 1046, 1717 H Street, N.W., Washington, D.C. The meeting started at 8:30 a.m. on Monday, May 18, and continued until 5:00 p.m.; the meeting resumed at 8:00 a.m. on Tuesday, May 19, and ended at 12:00 Noon.

Attendance:

The following ACRS members and consultants were in attendance on the days indicated.

Name	Monday, May 18	Tuesday, May 19
D. W. Moeller, Member	x	x
J. C. Ebersole, Member	x	x
C. Mark, Member	x	x
F. J. Remick, Member	x	x
M. First, Consultant	x	x
D. Orth, Consultant	x	x
F. Parker, Consultant	x	--
G. Pinder, Consultant	--	x

Total Members: - 4
Total Consultants: - 4

NRC Staff and Fellows:
O. S. Merrill, Senior Staff Engineer
S. J. S. Parry, Senior Fellow
A. Tabatabai, Fellow

NRC Staff Presenters Attendees: Total - 19
(See Attachment 1 for names of Presenters and Attachment 2 for list of all attendeed.)

Others: - 14

Total: - 44

Documents:

The documents provided during the meeting are listed in Attachment 3. They are arranged to correspond with the order of presentation given in Attachment 1. Also included as Attachment 4 is the list of documents provided in O. S. Merrill's memorandum to D. W. Moeller, May 8, 1987 -- background information for review prior to the meeting.

Subcommittee Executive Session Actions

Only oral comments were made during the discussion of the various topics highlighted below, except for the Quality Assurance and Mixed Waste topics. Written draft reports on these two topics were prepared by the Subcommittee during an Executive Session for ACRS review during its 326th meeting, June 4-6, 1987. They are entitled, "Quality Assurance Programs for High-Level Waste Repository," and "Disposal of Mixed Wastes." It is planned that NRC Staff will make presentations on these two topics to the full Committee during that meeting.

Discussion Highlights

1.0 QA Program Status - J. Kennedy (Document No. 1)

1.1 The objectives of NRC's efforts are (1) to help cause DOE to put into place a QA Program adequate for licensing before the start of site characterization, and (2) for the NRC Staff to have performed sufficient review of the DOE QA Program before site characterization that NRC would have reasonable assurance that the plan meets the regulations in Part 60 for QA. In line with the first NRC objective, DOE stated in a September 3, 1985 letter from W. Purcell to R. Browning, NRC, that their objective is "to have a fully qualified (QA) program in place prior to submittal of the SCP's." DOE further stated that they will request the NRC to audit their program so that they (DOE) might demonstrate compliance with applicable QA requirements.

1.2 In June an NRC Staff/NRC consultant team will perform a "mini-audit" of the mineralogy/petrology program at the Los Alamos National Laboratory (LANL), for the Nevada tuff site (Yucca Mountain). They will review both the paper and the product.

1.3 At the present time the NRC Staff does not have performance indicators as this is a first-of-a-kind effort. They plan to develop such indicators as the program progresses.

1.4 Regarding DOE's independence in the QA area, Dr. Remick said that the DOE QA Program should not be so independent that their employees (and contractors) feel no responsibility for QA.

2.0 Revision of NRC's QA Review Plan - L. Riddle (Document #2)

2.1 L. Riddle said that the 1984 QA Review Plan in Part 60 was based on 18 criteria that were based on SRPs for nuclear power plants, most of which are administrative in nature. The plan is being updated and revised as a result of the experience during 3 years of usage and the results of the Ford Study. (The NRC Staff is to provide the Subcommittee with a copy of the list of 18 criteria.)

2.2 The objectives of the revision are to identify improvements and clarifications as necessary for the plan to be applicable to the licensing of a geologic repository.

2.3 The revisions will include:

-- more detailed and specific guidance to DOE
-- inclusion of technical audits
-- changing the 18 criteria to include good laboratory practices and the use of laboratory notebooks as a QA record
-- the endorsing of NQA-1

2.4 A discussion between L. Riddle and F. J. Remick and M. W. First stressed the necessity of a glossary in the revision to clarify and differentiate

between such terms as readiness review, technical review, audit, review, etc.

2.5 NUREG-1055 should be studied for lessons learned -- independence is a major issue.

2.6 It was agreed with the Staff that after the LANL audit and the draft of the Review Plan is completed (by summer, 1987) the Subcommittee will meet again with the Staff to review progress on this topic.

3.0 GTPs on Peer Review and Qualification of Existing Data for HLW Repositories, J. Donnelly (Documents #3, 4 and 5)

3.1 J. Donnelly said that they had just met on the preceding Thursday, May 14, 1987 with representatives of DOE, the States and Indian Tribes to identify, discuss and resolve various issues relating to these two closely-related GTPs. The issues and their resolution are given in Document #3.

3.2 Corroborating data need not be developed under an NRC Approved QA program, but the procedures and personnel used in obtaining the data need to be considered on a case-by-case evaluation of such data.

3.3 Of the 4 methods discussed by J. Donnelly for the qualification of existing data, confirmatory testing ranks first, corroborating data or an equivalent QA Program second, and peer review last.

3.4 In the further discussion of peer review, the following subjects were emphasized.

a) independence of peer review members

b) whether the rules for 3.4(a) apply to NRC's peer review members

c) whether NRC will apply its QA rules to itself, which J. Parry emphasized should be done

d) does the Federally Funded Research and Development Center (FFRDC) represent an independent peer review group for the NRC, which was answered in the negative since it is under NRC's direction

e) the States and Indian Tribes can and have been asked to provide members to peer review groups

f) the National Academy of Sciences/National Research Council and other professional societies should be asked to suggest nominees for peer review groups. The NAS/NRC method for selecting such nominees to avoid conflict of interest may provide a pattern for the NRC to follow.

g. F. Parker stated that a peer review group should not 1) set up test plans, 2) recommend ranking of sites, or 3) become part of the project.

4.0 Impact of NMSS Reorganization on Waste Management Program - J. Linehan (Document #6)

4.1 J. Linehan discussed the revised Division of High-Level Waste Management (DHLWM) organization as shown in the handout. The biggest change is the transfer of the low-level waste functions to a new separate Division of Low-Level Waste Management and Decommissioning (DLLWMD).

4.2 There is no significant impact of this reorganization on the NMSS/HLW program. They have gone from a matrix organization to a line organization.

4.3 The storage of spent fuel and the licensing of the Monitored Retrievable Storage (MRS) is in a separate division of NMSS, and the transportation of spent fuel is in yet another division of NMSS. The coordination of these programs with the DHLWM programs is handled by the Systems Engineering and Evaluation Branch of the DHLWM. There was concern expressed by members of the Subcommittee regarding this division of responsibility, their beliefs being that these efforts should all be under the aegis of the DHLWM, not just under that of NMSS.

5.0 Update on NRS Waste Package Program, - E. Wick of NRC, and C. Interrante of the National Bureau of Standards (NBS) (Documents 7-10)

5.1 E. Wick gave an overview of this work, which is the evaluation and compilation of DOE waste package data. There are 4 tasks being performed by NBS: 1) Review of waste package data base, 2) Identification of additional data required, 3) Performance of experimental tests proposed under task 2, and 4) Provision on short notice as requested of general technical assistance on evaluation of waste package data.

5.2 C. Interrante reviewed NBS' efforts as a contractor for NRC including personnel, document control, etc. Document #9 is the NRC/NBS first annual report on this program.

5.3 The key technical problems in this effort are corrosion, leaching, dissolution, and transport within the waste package, all of which are under investigation for both metal alloys and borosilicate glass for use in basalt, salt, tuff and granite (crystalline) media.

5.4 As a result of NBS's efforts to date, NRC has authorized them to perform 4 experimental studies (see Document #10): 1) Pitting corrosion of steel used for nuclear waste storage, 2) Effects of corrosion on the behavior of Zircalloy Nuclear Fuel Cladding, 3) Evaluation of methods for the detection of stress corrosion crack propogation in fracture mechanics samples, and 4) Corrosion in simulated repository environments.

6.0 Waste Package Acceptance Activities Regarding Processing Radioactive Wastes into Glass - E. Wick (Document #11)

6.1 Preceding E. Wick's discussion of this topic, it was brought out that (relative to item 4.0 above): 1) NPC will have an internal QA program plus one for contractors, including the FFRDC contractor, and 2) A major concern by the Subcommittee is the NRC internal QA program, which the Staff indicated they would discuss in a future subcommittee meeting.

6.2 E. Wick pointed out that DOE plans to produce borosilicate waste forms from HLW at the West Valley (New York) Demonstration Project (WVDP) and the Defense Waste Production Facility, Savannah River, South Carolina (DWPF) in late 1988 or early 1989, which is prior to the selection of the first repository site and submission of license application to NRC. Thus, all WVDP HLW and a significant fraction of High-Level Defense Waste (HLDW) at the Savannah River Plant (SRP) will be committed to waste forms before the first repository is licensed. Hence, product specifications and production on processes are likely to be completed before waste package designs are finalized and before sites are characterized. NRC will not know if the waste form will be compatible with the repository.

6.3 E. Wick stated that in order for the NRC Staff to assess the performance of waste forms, DOE must 1) allocate performance, 3) submit sufficient waste package and site-specific environmental data, and 3) assess

potential negative impacts on other components of the Engineered Barrier System (EBS).

6.4 No defense wastes will go into an MRS; they will be held on-site and then sent directly to the repository, when it is available.

6.5 D. Moeller noted that the projected 3,540 lbs. of borosilicate glass will have a decay heat of 660 watts and an exposure rate of 6300 R/hr. Also, that the fission product slurry (solids) will make up 25% to 40% of the borosilicate glass mix.

7.0 Greater than Class C Wastes (GTCC) - T. Johnson and G. Roles (Document #12)

7.1 Mr. Johnson said that GTCC waste is commercial LLW that exceeds Class C radionuclide concentrations as defined in 10 CFR Part 61. It includes GTCC waste generated by NRC or Agreement State licensees. It does not include 1) LLW owned or generated by DOE, 2) LLW from Naval decommissioning, or 3) LLW owned or generated by the Federal Government resulting from nuclear weapons work.

7.2 The DOE's five recommendations for management of GTCC LLW in a recent report (DOE/NE-0077, February 1987) were discussed. They appear on page 2 of Document #12. And appearing on page 3 is a matrix listing the GTCC

Wastes identified in the DOE report, listed according to Waste Generator, Type of Activity (primarily from commercial and decommissioning sources), Physical Form, Volume in cubic meters to the year 2020, and Radionuclides Generated. Fortuitously or not, as the case may be, the total volume projected to be generated by the various generators by the year 2020 is 2,020 cubic meters.

7.3 A comparison of GTCC Waste with the NRC conceptual HLW definition (in a February ANPR) was discussed by Mr.. Johnson. D. Moeller noted that 50% of GTCC wastes will probably be HLW, and that 35% of GTCC wastes will, because of long-lived radionuclides, require permanent isolation.

7.4 Mr. Johnson also indicated that in an April 30, 1987 letter to DOE, NRC indicated that 1) they are pleased that DOE will accept GTCC wastes (hence the disposal facility does not need to be licensed), 2) a disposal decision cannot be made at this time, and 3) NRC recommends disposal in an HLW repository.

7.5 D. Moeller noted that there was no discussion of disposal options since the NRC has not set up standards for the disposal of GTCC wastes.

7.6 D. Moeller also noted that Congress may exempt the HLW repository from the RCRA requirements.

8.0 Mixed Wastes Update - S. Bahadur (Document #13)

8.1 S. Bahadur gave a very well organized review of this topic, as evidenced by the presentation handout, covering 1) background 2) issues for administrative solution (incompatibilities, definition of mixed waste, siting, design, and complexities, and 3) current conclusions.

8.2 Following many months of closely working with the Environmental Protection Agency (EPA) on this issue, the NRC and the EPA have achieved substantial agreement on how it is to be handled. Their conclusions are: 1) dual regulation is technically achievable, 2) procedures are likely to be complex and burdensome, and 3) substantial work is required for simplifying permitting/licensing, inspection, and enforcement.

8.3 S. Bahadur stated that approximately 3% of mixed wastes consist of 1) organic scintillation fluids, etc., 2) chromium-based wastes; and 3) lead-oriented wastes.

8.4 The joint NRC/EPA definition of mixed waste includes the condition that toxic chemicals must be a major component within the waste.

8.5 Joint siting guidelines are being developed. NRC has added an item that groundwater flow rate, from outside engineered barriers for a 100 foot flow path, must be greater than 100 years. Also, that the physical

barrier around the disposal site should be at the height of the 30 year flood (30 years is the time required to fill the waste facility).

8.6 D. Moeller noted that toxic chemicals must all be in solid form before being placed in the site, because organic chemicals will push through clays and will dissolve a plastic liner.

8.7 In reply to a question by D. Moeller as to why so much fuss about HLW and LLW when toxic chemicals last forever (and EPA is preserving this condition), S. Bahadur answered that there are four characteristics, only one of which has to be met in order to classify a chemical as toxic: 1) toxicity (its concentration must be greater than a threshold value), 2) corrosivity 3) flammability, and 4) reactivity.

9.0 Summary of April 1987 Hydrology Meeting at BWIP (Hanford) Site, - P. Hildenbrand and N. Coleman (Document #14)

9.1 P. Hildenbrand stated that the April 1987 meeting at BWIP was for the purpose of 1) resolving potential licensing issues -- key technical issues -- prior to DOE's drilling a 6 ft. diameter Pre-Exploratory Shaft (ES), and 2) discussing DOE's hydrologic testing programs. (Similar key technical issues exist at the other sites).

9.2 In response to a question as to why the ES could not be sunk before completing the taking of test data, P. Hildenbrand answered that the sinking of the shaft would disturb the zone and thereby prohibit the gathering of meaningful data later.

9.3 P. Hildenbrand said that DOE is preparing a new "concept" paper because the NRC pointed out to them in an April 1986 meeting that they were not following a December 1985 agreed-upon protocol. DOE has not been able to prepare the new "concept" paper until now because of its schedule-mandated preparation of the Final Environmental Assessments. The USGS agrees with the current (in preparation) "concept" paper.

9.4 N. Coleman stated that hydrology at Hanford is a key issue and that, in addition to resolving the issue discussed in item 9.3, one of the objectives of the April 1987 meeting was to reach general agreement on the conceptual scope of the hydrologic testing program.

9.5 N. Coleman discussed the 4 objectives of the pre-ES hydrologic testing program which are the collection of: 1) "perishable" hydrological data, 2) data that would give early indications of disqualifying conditions, 3) data regarding possible hydrologic effects on ES construction, and 4) hydrologic data relevant to the ES and repository design.

9.6 N. Coleman also said that the overall objective of the testing program

is to prove you do not have vertical communication; he referred Subcommittee members to BWIP Site Technical Position No. 1.1: Hydrogeologic Testing Strategy for the BWIP Site, December 1983.

9.7 G. Pinder pointed out that there are ways of verifying that you have vertical communication, but, to his knowledge, no way of establishing that you don't. This was the key issue of a lengthy discussion, which resulted in D. Moeller recommending that G. Pinder be provided with pertinent documentation for review and that subsequently he meet with the NRC staff and their consultants to further discuss this key issue, and report back to the Subcommittee on his findings and recommendations. (Subsequent to the Subcommittee meeting, plans to confirm such arrangements were undertaken).

9.8 D. Moeller asked if DOE could not sink the ES without disturbing the hydrology of the site, and was answered, yes, but it is not a sure thing. Because of tight scheduling, DOE is evaluating whether they can begin now to sink the shaft, but the State and Indian Tribes are suspicious of this.

9.9 N. Coleman stressed that the pre-ES tests should look for factors that will disqualify a site, not those that make it look good. This point was emphasized by several Subcommittee members.

9.10 Additional discussion re-emphasized some of the issues discussed above as well as bringing out new issues of concern to the Subcommittee and Consultants, namely:

1) The test plan does not evaluate vertical communication
2) The plan is not designed to answer key questions
3) Fractured media gives cause for concern
4) The need for statistical tests and optimization tests to help define their uncertainties associated with the site
5) The boring of slant holes (suggested by S. Parry) and of horizontal holes from the ES, when drilled, would be helpful in locating the existence of fractures. This option of slant drilling should be considered, although the NRC consultants apparently do not support it
6) DOE has said that if vertical flow is found it would cause them to seriously question the suitability of the site
7) Re-emphasis on providing G. Pinder with substantial back-up reports and arranging for him to meet with the NRC Staff and their consultants/contractors to review this key issue.

9.11 The NRC Staff support the plan and believe it is adequate.

10.0 Demonstration of Performance Modeling of a LLW SLB Site (Nitrate Disposal Pit Site, Chalk River, Canada), - D. O'Donnel (Document #15)

10.1 E. O'Donnel indicated that this effort was a comparison of predictive radionuclide transport modeling versus field observations at the above-stated site. This effort was performed in order to test the concept of "site modelability" to demonstrate the Licensing Requirements for Land Disposal of Radioactive Waste (Subpart D, Part 61.50(a)(2) of 10 CFR 61), which states that a "disposal site shall be capable of being characterized, modeled, analyzed and monitored."

10.2 Actual measured radionuclide migration was compared with predicted migration estimates from hydrologic transport models. The study is described in detail in Document #15.

10.3 D. Moeller asked if the model includes a material or mass balance, which was answered in the affirmative with the explanation that by this means the horizontal and vertical radionuclide concentration can be determined.

11.0 Control of Water Infiltration into Near-Surface LLW Disposal Units, - E. O'Donnell (Document #16)

11.1 E. O'Donnel explained that, in the humid eastern part of the United States, trench covers have, in general, failed to prevent some of the incident precipitation from percolating downward into buried waste sites. The purpose of the present work is to investigate and

demonstrate a procedure or technique that will control water infiltration into wastes regardless of whether they are buried above or below ground level. Results to date show the proposed procedure to be very promising and that it is applicable to shallow land burial as well as to above ground disposal. The program is described in detail in Document #16.

11.2 D. Moeller noted that the principal water pathway is through the earth cap over the waste disposal site. Multiple-layer caps have been proposed and used, but have not been tested. They also require perfect Quality Control. They can be, however, subject to frost heaving and subsidence.

11.3 The concept discussed in this presentation is testing the use of a bioengineered approach. It employs an impervious plastic cover alternating with narrow strips of vegetation, in these tests juniper plants whose roots can go as much as 250 feet deep in arid regions, but which normally go only 30-40 feet. Water is taken up by the roots and transpired to the atmosphere, thus removing the unwanted water from the disposal pit.

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NOTE: A transcript of the meeting is available in the NRC Public Document Room, 1717 H Street, NW., Washington, D.C. or can be purchased from ACE-Federal Reporters, 444 N. Capitol Street, Washington, D.C. 20001 (202) 343-3700. All documents listed on Attachment 3 are available in ACRS files.

FINAL AGENDA (May 15, 1987)
ACRS SUBCOMMITTEE ON WASTE MANAGEMENT
ROOM 1046, 1717 H ST. NW., WASHINGTON, D.C.
MAY 18-19, 1987

Monday, May 18 --

8:30 - 8:45 a.m.	Opening Statement	D. W. Moeller, Chairman
8:45 - 9:30 a.m.	Overview of Q/A Program and Activities	J. Kennedy, HLWM
9:30 - 10:00 a.m.	Revision to Q/A Review Plan	L. Riddle, HLWM
10:00 - 10:15 a.m.	BREAK	
10:15 - 11:15 a.m.	GTPs on Peer Review and Qualification of Existing Data for HLW Repositories	J. Donnelly HLWM
11:15 - 11:30 a.m.	Impact of NMSS Reorganization on Waste Management Program	J. Linehan HLWM
11:30 - 12:30 p.m.	LUNCH	
12:30 - 1:30 p.m.	Update on NBS Waste Package Program	E. Wick/HLWM NBS Staff
1:30 - 2:30 p.m.	Waste Acceptance Activities Regarding Processing Radioactive Wastes into Glass	E. Wick, HLWM
2:30 - 2:45 p.m.	BREAK	
2:45 - 3:30 p.m.	Greater than Class C Wastes	T. Johnson and G. Poles, LLWM
3:30 - 4:15 p.m.	Mixed Wastes Update	S. Bahadur LLWM
4:15 - 5:00 p.m.	Executive Session	
5:00 p.m.	RECESS	

ATTACHMENT 1

Tuesday, May 19 --

8:00 - 8:05 a.m.	Opening Statement	D. W. Moeller, Chairman
8:05 - 8:50 a.m.	Summary of April 1987 Hydrology Meeting at BWIP (Hanford) Site	R. Johnson, P. Hildenbrand and HLWM Staff
8:50 - 9:30 a.m.	Demonstration of Performance Modeling of a LLW SLB Site (Nitrate Disposal Pit Site, Chalk River, Canada)	E. O'Donnell RES/WMBR
9:30 - 10:15 a.m.	Control of Water Filtration Into Near Surface LLW Disposal Units	E. O'Donnell RES/WMBR
10:15 - 10:30 a.m.	BREAK	
10:30 - 12:00 Noon	Executive Session	
12:00 Noon	ADJOURN	

NOTE: The ACRS Subcommittee on Nuclear Plant Chemistry, D. Moeller, Chairman, will meet from 1:00 to 5:00 p.m. to review SRP Section 6.5.2, "Containment Spray as a Fission Product Cleanup System," and SRP Section 6.5.5, "Suppression Pools as Fission Product Cleanup Systems. All Waste Management Subcommittee members and consultants are requested by Dr. Moeller to attend this meeting also, if possible.

ACRS SUBCOMMITTEE MEETING ON WASTE MANAGEMENT

LOCATION Room 1046, 1717 H St. NW., Washington, D.C. 20555

DATE May 18-19, 1987

ATTENDANCE LIST

PLEASE PRINT: NAME	AFFILIATION
D. W. MOELLER	ACRS Member
C. MARK	" "
J. C. EBERSOLE	" "
F. PARKER	ACRS CONSULTANT (DAY 1)
D ORTH	" "
O S MERRILL	ACRS STAFF
S. J. S. PARRY	ACRS SR. FELLOW
F. J. REMICK	ACRS Member
M. FIRST	ACRS CONSULTANT
G. PINDER	" " (DAY 2)

ATTACHMENT 2

... MEETING ON WASTE MANAGEMENT

... 1016, 1717 H St. NW., Washington, D.C. 20555

... May (18)-19, 1987

May 18, 1987

ATTENDANCE LIST

PLEASE PRINT:

NAME	AFFILIATION
LINDA RIDDLE	NRC
Jim Kennedy	NRC
DAVID HOFFMAN	Am Federal
Kathleen McDarby	NRC
Elise Heumann	NRC
Leslie Peeters	SAIC
HENRY BERMANJIS	WESTON/UE&C
GARY FAUST	WESTON/UE&C
Ronald L. Ballard	NRC
JOHN LINEHAN	NRC
CHUCK PETERSON	NRC
PAUL J. BEMBIA	NRC
John W. Bradbury	NRC
Richard E. Ricker	N.B.S.
DALE HALL	NBS
Charles G. Interrante	NBS
MIKE BELL	NRC / HLWM
Jill Ruspi	NBS
Ali Tabatabai	ACRS fellow
Bill BELKE	NRC
Alan Duncan	NRC
James Donnelly	NRC

RE MEETING ON WASTE MANAGEMENT

LOCATION Room 1246, 1717 H St. NW., Washington, D.C. 20555

DATE May 18-19, 1987

ATTENDANCE LIST

PLEASE PRINT: NAME	AFFILIATION
C Maddox	NVS Corp
E. R. Plant,	NBS
M. LINZER	"
R.D. Shull	"
A.C. Fraker	"

OWEN MERRILL

LOCATION: Room 1046, 1717 H St. NW., Washington, D.C. 20555

DATE: May 18-19, 1987

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NAME	BADGE NO.	AFFILIATION
[illegible]	E-0959	Ac. Federal
[illegible]	E-0057	SAIC
D[illegible]	E-0[illegible]	A.F. Consultant
F. Z. Parker	E-09[illegible]	" "
C. C[illegible]	E-0915	[illegible], DOC
D E H[illegible]	E-0912	NBS
R.E. [illegible]	E-0970	Natl. Bureau of Stds.
J.[illegible]	E-0[illegible]	Nat'l Bureau of Standards
E. K. [illegible]	E-0901	Natl Bureau of Standards
C F[illegible]	E-0231	NUS Corp
[illegible]	E-0927	HARLAND U. AFS Consult,
E. ESCALANTE	E0915	NATL BUREAU OF STANDARDS
~~[illegible]~~		
[illegible]	E0934	"
M. [illegible]	E0151	" " "
R.D. S[illegible]	E0242	" " "
[illegible]	E0921	NRC

... MEETING ON WASTE MANAGEMENT

... 1717 H St. NW., Washington, D.C. 20555

DATE May 18-19, 1987

ATTENDANCE LIST

PLEASE PRINT:

NAME	AFFILIATION
RE Browning	NRC.
Robert Johnson	NRC
Donald L. Chery Jr.	NRC/RES/WMB
C Maddox	NUS Corp.
R. J. Grill	NRC/RES
Edward O'Donnell	NRC/RES
Charles R Cole	PNL
W. R. Ott	NRC/RES

DATE: [illegible]

ATTENDANCE LIST

PLEASE PRINT:

NAME	BADGE NO.	AFFILIATION
D. [illegible]	E-0[illegible]3	[illegible] Federal
D.A. [illegible]	E-097[illegible]	ACRS Consultant
G. [illegible]	E 0912	"
R Browning	E0997	NRC staff
C. [illegible]	E0237	NUS Corp.
M.W. FIRST	E0952	ACRS Consultant
CR Cole	E0965	Pacific Northwest Labs

LIST OF DOCUMENTS
DISTRIBUTED DURING THE MEETING OF THE
ACRS SUBCOMMITTEE ON WASTE MANAGEMENT
WASHINGTON, D.C.
May 18-19, 1987

1. NRC Staff Review of HLW Repository QA Programs, J. Kennedy, May 18, 1987

2. Revision to QA Review Plan, Linda K. Riddle, May 18, 1987

3. Generic Technical Positions (GTP) on Peer Review and Qualification of Existing Data, James Donnelly, May 18, 1987

4. Draft GTP on Peer Review for High-Level Nuclear Waste Repositories, USNRC, June 1986

5. Draft GTP on Qualification of Existing Data for High-Level Nuclear Waste Repositories, (USNRC, undated)

6. USNRC Organization Chart Division of High-Level Waste Management, February 6, 1987

7. Overview of NBS TA Contract, E. A. Wick and C. G. Interrante, National Bureau of Standards (NBS), May 19, 1987 (presented on May 18, 1987).

8. Technical Issues (Waste Package) No identifying information, but presented by Dr. C. G. Interrante, NBS, May 19, 1987 (presented May 18, 1987)

9. NUREG/CR-4735, Volume 1, Evaluation and Compilation of DOE Waste Package Test Data, Biannual Report: December 1985 - July 1986, dated March 1987

10. Set of four proposals, each under the general heading, Proposal for NBS Experimental Studies Under NBS-NRC Project (FIN-A-4171-6)

11. Waste Acceptance Activities Regarding Vitrification of HLW, E. A. Wick, May 19, 1987 (presented on May 18, 1987)

12. Greater than Class C (GTCC) Wastes, Presentation Material, T. Johnson and G. Roles, May 18, 1987

13. Briefing on Status of Mixed Waste, Sher Bahadur, NMSS/LLWM, May 18, 1987

14. NRC Review of Hanford Site Characterization Activities -- Hydrogeology, N. M. Coleman, May 19, 1987

ATTACHMENT 3

15. NUREG/CR-4879, Demonstration of Performance Modeling of a Low-Level Waste Shallow-Land Burial Site, April 1987

16. Control of Water Infiltration Into Near Surface LLW Disposal Units, Annual Reports, October 1985 - September 1986

LIST OF DOCUMENTS
TO ACCOMPANY STATUS REPORT FOR
WASTE MANAGEMENT SUBCOMMITTEE MEETING
MAY 18-19, 1987

1. Quality Assurance Q/A Background Documents

   (a) NMSS Background Paper on Q/A Programs (April 1986)

   (b) Presentation Material, Draft GTP ... 10CFR60 Q/A Requirements

   (c) Portion of Certified Minutes of the April 24-25, 1987 Waste Management Subcommittee Meeting, issued May 30, 1986

2. Generic Technical Position on Qualification of Existing Data for HLW Repositories, April 1987

3. Draft Generic Technical Position on Peer Review for HLW Repositories, June 1986 (attached to GTP on Qualification of Existing Data

4. NRC Organization Charts, April 1987

5. Memorandum from S. Bahadus to Distribution, Subject: Review of Draft Generic Letter on Mixed LLW Disposal Facility Design Concept, March 26, 1987

6. SECY-86-280, Discussion of Policy Options on Mixed Low-Level Radioactive and Hazardous Waste (Mixed LLW) Disposal, dated October 3, 1986

7. Letter from H. Thompson, NRC/NMSS, to A. Rossin, DOE, Subject: Greater than Class C LLW, dated April 30, 1987

8. NUREG/CP-4879, (draft), Demonstration of Performance Modeling of a Low-Level Waste Shallow Land Burial Site, April 1987

9. NUREG/CR 4910, Vol 1 (draft) Control of Water Infiltration into Near Surface LLW Disposal Units, Annual Report, October 1985 - September 1986

10. Selected NRC Products -- HLW Program, April 1987

11. HLW Documents FYI, Cover letter from N. Still to Interested Parties, dated 3/9/87

12. Remarks by Commissioner Asselstine, Press Release No. 87-2, February 10, 1987

ATTACHMENT 4

13. A Study of the Isolation System for Geologic Disposal of Radioactive Wastes, NAS/NRC 1983

14. U. S. Department of Interior letter to R. Morgan from D. Frederick (with attachments) dated August 25, 1983

15. Draft GTP on Ground Water Travel Time (GWTT), dated January 3, 1986