Eisenberg, N.

Nuclear Engineering Division
Founded in 1934

The American Society of
Mechanical Engineers

345 East 47th Street
New York, NY 10017

Reply to: Edward W. Russell
Lawrence Livermore Nat. Lab.
P.O. Box 808, L-197
Livermore, CA 94550
415/422-6398

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1988-1989

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Rockwell International
Energy Technology Engineering Center
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Canoga Park, CA 91304
818-700-5640

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P.O. Box 33189
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San Diego, CA 92121
619-455-9500

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Lawrence Livermore National Lab.
P.O. Box 808
Mail Code L-440
Livermore, CA 94551
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Project Management Division
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Idaho Falls, ID 83415
208-526-9544

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Plant Systems
T. Piccione

High Level Radioactive Waste
E.W. Russell

February 3, 1989

TO: ASME High Level Radioactive Waste Committee Members and Other Interested Parties

SUBJECT: **Information Items for the Next HLW Committee Meeting**

To supplement the HLW committee newsletter of 1/4/89, attached is additional information that you will find pertinent to our next committee meeting, which is scheduled to be held on Monday, February 27, in Tucson, Arizona (see enclosed meeting agenda).

This information correlates to the following planned agenda items as shown below with attachments identified:

4. Subcommittee status reports:
   - 4.1 Public Affairs - ***Attachment 1***
   - 4.2 Membership Development - ***Attachment 2***
   - 4.3 Professional Development - ***Attachment 3***
   - 4.4 Honors and Awards - ***Attachment 4***
   - 4.5 Strategic Planning - ***Attachment 5***

6. Report on new International High Level Radioactive Waste Management Conference
   - 6.1 Steering Committee meeting (December 9, 1988) - ***Attachment 4***
   - 6.2 Program Planning Committee meeting (December 14, 1988) - ***Attachment 6***

8. HLW committee support of Joint International Waste Management Conference, Kyoto, Japan - ***Attachment 7***

I hope to see all of you at the committee meeting and the conference. If you cannot attend, and have input on the agenda items, please forward your feedback to me as soon as possible.

Sincerely,

Ed

Edward W. Russell
Chairman, High Level Radioactive Waste Committee

Attachments
SM89-15

cc: Kenneth L. Adler, NED Chairman

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AGENDA

ASME Nuclear Engineering Division
High Level Radioactive Waste Committee Meeting

DATE: *February 27, 1989, from 5 to 8 P.M.*

LOCATION: *Waste Management '89 Conference,*
Holiday Inn - Broadway, 181 W. Broadway, Tucson, AZ,
"Regency Room"

1. Welcome and approval of agenda.

2. New members and update of mailing list (Attachment "A").

3. Approval of minutes of April 19, 1988 HLW committee meeting at Myrtle Beach, SC.

4. Subcommittee status reports:
   - 4.1 Public Affairs- Paul Childress
   - 4.2 Membership Development- Tom Tang
   - 4.3 Professional Development- Bala Nair
   - 4.4 Honors and Awards- Dick Morissette
   - 4.5 Strategic Planning- Mike Akins

5. Recently attended NED meetings:
   - 5.1 1988 Joint Power Generation Conference, September 27,1988- Mike Akins
   - 5.2 1988 Winter Annual Meeting, November 29, 1988 - Ed Russell

6. Report on new International High Level Radioactive Waste Management Conference
   - 6.1 Steering Committee meeting (December 9, 1988)- Dick Morissette
   - 6.2 Program Planning Committee meeting (December 14, 1988)- Paul Childress

7. Future HLW committee sponsored technical sessions:
   - 7.1 Waste Management '89
   - 7.2 Joint International Waste Management Conference, Kyoto,Japan- October 23-28, 1989
   - 7.3 Waste Management '90, Tucson, AZ- February, 1990
   - 7.4 International Conference on High Level Radioactive Waste Management- Las Vegas, NV- April 8-12, 1990
   - 7.5 Joint ANS-ASME Topical Meeting, Newport,RI- September 16-20, 1990

8. HLW committee support of Joint International Waste Management Conference, Kyoto, Japan by review of papers: Ed Russell /Steve Slate

9. Future Activities
   - 9.1 ASME potential interfaces with DOE HLW programs
   - 9.2 Technology transfer subcommittee

10. New Business

11. Next Meeting.

B&W Fuel Company
An American Company With Worldwide Resources

3315 Old Forest Road
P.O. Box 10935
Lynchburg, VA 24506-0935
(804) 385-2000

Ed Russell, Chairman
High Level Waste Committee
Nuclear Engineering Division
American Society of Mechanical Engineers

January 25, 1989

ASME HLW Committee Newsletter

What's the Direction in HLW Issues for 1989?

The days are getting longer and the inauguration is over--does this mean we finally know what direction or speed the Department of Energy (DOE) will use to pursue its civilian or military nuclear waste management programs? Even though Congress is in session and an Executive budget for FY90 has been submitted, the answer is still in doubt. There is every sign that the new Bush team will submit a revised budget to reflect a slightly different agenda than the Reagan administration. The new Secretary of Energy, former Admiral James Watkins, and Presidential Chief of Staff, former New Hampshire Governor John Sununu, bring a knowledge of both the technology and politics of nuclear power to their positions. If equally competent candidates can be found to fill the posts of Federal Negotiator and Director of the Office of Civilian Radioactive Waste Management (OCRWM), and in a timely manner, than the biyearly "window of opportunity" can be used for accomplishing those tasks that our country seems to find so hard to do.

What, you might ask, is the biyearly window of opportunity? That, friends, is the ten month period between when each new congress is sworn in and when they start posturing for the next election. This year the window extends from February to December. Don't expect anything to happen on election years! Every significant nuclear waste measure in recent years has followed this trend. We can only hope the window is used wisely this year.

Speculation is rampant on who the new OCRWM Director will be. The utilities have served notice that none of the current staff are acceptable; they want someone politically atuned enough to lead the program through the Congressional and public relations morass and technically competent enough to force the myriad of contractors and civil servants to perform per the schedule in the Mission Plan. Someone with those qualifications would probably be too smart to take the job, but the search continues. If you have a candidate, send his resume to Edison Electric Institute, care of Steve Kraft.

The System Engineering, Development, and Management (SEDM) contract, aka Super-Gorilla, was awarded to a team led by Bechtel, but that award has been blocked by a protest from one of the losing teams. How the delay will affect DOE's schedule is unknown, but the transition would probably have had to wait for the new Bush team's approval anyway. Most observers think that good performance by the SEDM contractor is the only way to keep the wheels on the Yucca Mountain wagon.

B&W Fuel Company

On the MRS front, the MRS Review Commission has been busy collecting testimony from experts and novices alike. One lady preacher volunteered her opinion that anything other than onsite storage was immoral; when Commissioner Parker asked her if that made Europeans with MRS facilities immoral, she confessed, "Well, I don't know much about the details of this technology." Participants in the MRS hearings have been impressed by the performance of the three commissioners and expect a professional report from them. They have indicated that their report, due November 1, will not hedge, but will give straightforward recommendations.

Several local-area groups from West Virginia, South Carolina and New Mexico are trying to get funding for MRS siting feasibility studies, but DOE is stonewalling until a Federal Negotiator is named. Bob Broadbent, Director of the Las Vegas Airport and veteran of several federal bureacracies, has been recommended by the Nevada Congressional delegation, but the Bush team will have to formally submit his name to the Senate for approval--don't expect that to happen until after the OCRWM Director is named.

Recent discoveries and media events concerning the nuclear weapons facilities and their waste disposal problems continue to have repercussions. There is no doubt that Congress and the Bush administration will make the start of their clean-up a high priority, but the cost will not be small and the burden will have to be shared by other programs. The DOE FY90 budget unveiled by the outgoing Reagan team was oriented in that direction, but it will be further accented by negotiations over the next few months. Potential targets include one of the two technologies previously chosen for the new tritium reactor. The silver lining to this cloud is that true design efforts and not just bandaids should now be applied to the HLW issue.

The Yucca Mountain Project continues to strain to make almost imperceptable progress. DOE's QA plan for activities at the site have been approved by the NRC and all of the contractors are now being brought in line. Nevada continues to obstruct all proposed work at the site and is trying to link drilling of the exploratory shaft to other aspects of the Nuclear Waste Policy Act. Carl Gertz, DOE's Project Manager, has established his goal as "moving dirt in 89." Whether or not that happens is a tough question.

The Waste Isolation Pilot Plant (WIPP) was also plagued by problems in 1988 and 1989 promises little relief. The resolution of the leak problem (real ones and media ones) and the issuance of a plan to meet EPA guidlines are public/Congressional priorities that will receive attention. The TRUPACT shipping container, one of the critical path items for WIPP operation, has successfully completed all but the last fire test and should be licensed by mid-year.

In summary, 1989 has the feel of a exciting year for HLW issues. Problems, yes, but for each problem an opportunity. There will be lots of opportunity for us as an individual, professional organization, or company in 1989. Good luck in yours.

Paul Childress, Public Relations Chairman

2/3

University of Pittsburgh
ENERGY RESOURCES PROGRAM

1-27-89

Edward W. Russell
LLNL

The following is for your newsletter as per our ~~telecon~~ of 1-24-89:

"Membership Development — Invitations were recently sent out for the membership of this committee to authors of papers presented at the last Joint ASME/ANS Nuclear Power Conference (Myrtle Beach). Potential new members are asked to mail response to Chairman Russell or chair of the Membership Development subcommittee."

Attached is a copy of the letter I sent out. In case people address their response to me, would you send me a set of material you would use to send out?

Tom

1140 BENEDUM HALL PITTSBURGH, PA 15261 (412) 624-7440

3/3

University of Pittsburgh
ENERGY RESOURCES PROGRAM

Please address reply to:
Professor Y. S. Tang
Room 1138 Benedum Hall
University of Pittsburgh,
Pittsburgh, PA 15261
January 24, 1989

Dear Colleague:

I am writing this short note to you on behalf of the Membership Sub-Committee of the High Level Radioactive Waste Committee, ASME/NED. Because you were a participant of the last Joint ASME/ANS Nuclear Power Conference in Myrtle Beach, I thought you might be interested in joining our committee for a common goal of devoting our efforts toward helping the solution of the WASTE PROBLEM. If you are not yet an ASME member, now is the time to join the society as well. You probably are aware of the fact that the non-membership registration fee you paid for the Myrtle Beach meeting could be credited to your first year membership fee!

If you are interested in joining us (this comittee), it is rather easy. Just drop a line to our chairman:

Edward W. Russell
Lawrence Livermore National Lab.
P.O. Box 808, L-197
Livermore, CA 94550

or to me via the address on the top of this letter. For your convenience, I even provide you with that line below so that you only need to fill in and drop it in the mail. Our next committee meeting will be at Tuscon, AZ during the '89 Waste Management Conference.

Best regards,

Y. S. Tang, member
High Level Radioactive Waste Committee
ASME/NED

* _____ _____ _____ _____ _____*

_____ YES, I am interested to join your committee:

NAME:
AFFILIATION:
I am (am not) a member of ASME. Send me the info. for the next meeting.

Mailing address: _____

1140 Benedum Hall, Pittsburgh, PA 15261 (412)624-5289 7249

ACTIVITIES OF THE PROFESSIONAL DEVELOPMENT SUBCOMMITTEE

The primary responsibility of the Professional Development Subcommittee during 1988 was to develop a proposal for an ASME Short Course on High Level Waste Management. A proposed Course Outline was developed and circulated to the members of the High Level Radioactive Waste Committee. A number of constructive comments were received, and the Course Outline was revised to reflect those comments. At the present time, instructors for the various segments of the course have been identified, and a formal proposal will be submitted to the NED in February/March 1989.

Bala

Bala R. Nair
Chairman

/lao

NWD:BN89010

ATTACHMENT 4

REPORT OF DECEMBER 9, 1989 MEETING OF THE STEERING COMMITTEE FOR THE INTERNATIONAL CONFERENCE FOR HIGH LEVEL RADIOACTIVE WASTE MANAGEMENT

The steering committee meeting was attended by a large group of representatives from several societies and interested organizations. Twelve technical and professional societies were represented. The American Nuclear Society amd the American Society of Civil Engineers have taken the lead organizational and financial responsibilities for the first conference to be held April 8-11, 1990 at the Ceasars Palace in Las Vegas, Nevada.

The Howard R. Hughes College of Engineering at the University of Nevada, Las Vegas will be the permanent host of the international conference which will meet annually in Las Vegas. It was agreed at the meeting that the conference would stress quality rather that quantity with regard to the papers submitted. The intent of the conference is to provide a forum for high quality technical exchange between scientists and engineers on all technical aspects of radioactive high-level waste management.

HONORS AND AWARDS SUBCOMMITTEE REPORT - JANUARY 1989

The High Level Radioactive Waste Committee has nominated Ronald C. Stinson, Chairman of the Board of the Management Analysis Company, for the "89 James N Landis Award. The nomination was submitted to the Nuclear Engineering Division for consideration.

The subcommittee is investigating the creation of a High Level Radioactive Waste Committee award to be presented annually for superior contribution in the area of high-level radioactive waste management.

Respectfully Submitted

Dick Lowenstein

1/25/89

HOWARD R. HUGHES COLLEGE OF ENGINEERING
OFFICE OF THE DEAN

UNIVERSITY OF NEVADA, LAS VEGAS
4505 MARYLAND PARKWAY • LAS VEGAS, NEVADA 89154 • (702) 739-3699

November 14, 1988

Dr. David L. Belden, Executive Director
American Society of Mechanical Engineers
345 East 47th Street
New York, NY 10017

Dear Dr. Belden:

This letter is to make you aware of plans to establish a new international conference on high level radioactive waste management. The impetus for this conference comes from the Office of Civilian Radioactive Waste Management of the Department of Energy with co-sponsorship among the major scientific and technical professional societies. In this regard, I would like to extend an invitation to your society to become a co-sponsor of this conference. The conference which will be an annual event with permanent venue in Las Vegas, Nevada will be hosted by the Howard R. Hughes College of Engineering, University of Nevada, Las Vegas. The date for the first conference is April 8-12, 1990.

The purpose of the conference is to establish a forum for national and international experts to exchange ideas and information toward the solution to the problem of permanent disposal of high level radioactive waste. The conference will be managed by the American Society of Civil Engineers (ASCE). The American Nuclear Society (ANS) will be responsible for the oversight planning of the technical program.

As Chairman of the Steering Committee, I wish to invite you to join the Steering Committee and to attend the next meeting which will be held on December 9, 1988, 8:30a.m.-12:00p.m. at UNLV in Las Vegas, Nevada. At this meeting it is expected that each member of the Steering Committee will be prepared to name a member to represent their organization on the Program Planning Committee. A first meeting of the Program Planning Committee is planned for December 14, 1988, 9:00a.m.-5:00p.m. at the ASCE Washington, D.C. office, 1667 K Street, N.W., Suite 750, Washington, D.C. The agenda for the Program Planning Committee meeting will be provided by the Chairman of the Program Planning Committee to be appointed by the ANS.

1988

I hope that you will be able to accept this invitation to participate as a co-sponsor in the International High Level Radioactive Waste Management Conference and work toward its success. If you have any questions concerning the conference please call me at (702) 739-3699. A response to this invitation by December 1, 1988 would be very much appreciated.

Sincerely,

W. R. Wells

William R. Wells, Dean
Howard R. Hughes College of Engineering

WRW/dd

ATTACHMENT 5

Ed Russell
26398
1/25 Phoned 3:20pr

memorandum Gilbert/Commonwealth

January 25, 1989

to: Ed ~~Russel~~ Ed

from: M. J. Akins

subject: Strategic Planning Subcommittee

Per your request, I have the following items that should be discussed at the meeting in Tucson:

Strategic Planning

1. Increasing Pace of Technical Change

   a) Develop way for identifying technical interest and "champions"
   b) Identify organizations that could have a productive synergistic relationship with ASME HLW Committee

2. Industry Restructuring

   a) Increase ties between ASME HLWC and industry
   b) Establish ASME HLWC as a leader in all aspects of technical expertise
   c) Become active in facilitating and coordinating R&D in the area of HLW

3. Increasing Competition for Members Time

   a) Improve quality of HLW programs
   b) Provide productive information during ASME programs

We need to lead! We need to attract interest! We need to educate! I'd like to see someone "champion" each of the three issues identified, and then to get some actions planned and implemented.

Hope this helps.

Mike

Mike

MJA:bt

DRAFT

ATTACHMENT 6

MINUTES OF THE HIGH LEVEL RADIOACTIVE WASTE CONFERENCE PROGRAM PLANNING MEETING FOR APRIL 1990

The meeting of the Program Committee was held December 14, 1988 in Washington D. C. at the L'EnFant Plaza Hotel. (For names of attendees see Attachment B). The Chairman of the meeting was John Bartlett and the Vice Chairman was Dillard Shipler. Both represented the American Nuclear Society. The affiliation of the other individuals by Society is given on the attached attendance list.

1. Introduction.

   The Chairman John Bartlett asked each individual present to introduce himself or herself.

2. Since this is the first meeting of the committee there are no previous minutes to be approved.

3. Bartlett introduced Dean William Wells, Dean of Engineering at the University Nevada-Las Vegas. Dean Wells is the Chairman of the Steering Committee for the 1990 HLRW Conference to be held in Las Vegas. Dean Wells reported briefly on the Steering Committee meeting of December 9, 1988 in Las Vegas. He was very pleased with the attendance and participation of many Societies and noted that apparently all the Societies present at the Steering Committee meeting and some additional ones were represented this morning at the first meeting of the Program Committee. The University of Nevada-Las Vegas is acting as the host of the Conference and will officially announce the Conference in a press release within the next few days. The press release is in the approval process by the major representatives involved with the meeting. The American Society of Civil Engineers and the American Nuclear Society are the only societies that have financial responsibilities for the meeting. They will share 50/50 any profits or losses from the meeting.

   Ben Easterling welcomed the group on behalf of the Department of Energy and stressed the importance of involving many disciplines associated with the Yucca Mountain Repository in Las Vegas. Easterling commented that it is obvious that neither the ANS or DOE wants the other to dominate but recognize that the program responsibility has been assigned to the ANS.

   Tom Isaacs from DOE stressed that DOE was very supportive of the Conference and hoped that the program will give all of us the ability to air scientific and technical issues through a high quality conference. Isaacs considered DOE as the catalyst for this meeting and hoped the Program

Committee would address the questions of how to best structure the program, what direction it will take, and how input would be made into the program.

4. Agenda.

John Bartlett passed out an agenda which he proposed to use as a guideline to accomplish the work of this committee at its first meeting. Also Bartlett discussed the principles of operation and plan of action for the Program Committee which were written based on ANS experience. He told the committee that these documents also will be used only as guidelines and that he would revise them based on discussions at this meeting so the guidelines would better conform with the desires of the other societies. Bartlett explained the importance of getting well qualified individuals from each society to participate in the development of the program and review of papers. Individuals suggested by each society should be willing to attend Program Committee meetings, help to review papers, and help with the organization of the sessions. Individuals who do not do their job on schedule would be replaced by others to assure that schedules are met. The Program Committee would be expected to identify each discipline that should participate in the meeting and then identify the people who can represent that discipline and the appropriate societies involved. There are opportunities for all interested societies to be full participants in the Conference provided they nominate the right individuals to represent them and be present at all committee meetings.

5. The General Philosophy of the Meeting.

Bartlett presented to the committee a list of topics and a proposed technical program by subject for each day of the Conference. Bartlett explained this was to be considered a starting point only and should be changed to fit the desires of the Program Committee. There was considerable discussion among committee members about the purpose and objectives of the HLRW management meeting and how these objectives might be accomplished. The program should be of high technical quality to: 1) project the proper perception of the quality of the work being done, 2) give an accurate technical report of the work being done in high level waste programs, and 3) develop communications with the scientific and engineering community, government agencies, and the public interested and concerned with the subject.

There was a clear consensus among the Program Committee members that the proposed program presented by Bartlett should be enlarged to emphasize more Plenary sessions and a more interdisciplinary approach to the problems encountered.

6. Development of the Program.

With the concurrence of the committee, Chairman John Bartlett appointed four group leaders and divided the Program Committee into approximately four equal groups. Based on the discussions that all had heard each group was to devise what they considered to be an ideal technical program for the three days of the technical meeting. The group leaders were as follows:

1. Paul Childress representing ASME
2. Michael Lindell representing ASCE
3. David Waite representing HPS
4. Steve Frishman representing the State of Nevada

Each group reported back to the committee as a whole after approximately 1 and 1/2 hour consultation among themselves. Prior to the consultations, each group was given general guidelines by the Chairman John Bartlett as follows. Four areas would be considered as follows:

a. Health and Safety -- the most important for the 1990 conference.

b. Performance Assessment.

c. Socio-Economics and Transportation.

d. Waste System Safety Performance

7. Report of the Individual Groups.

Each group reported back to the committee as a whole and included in these minutes are some of the major points so they might be used for future reference.

Group I - Michael Lindell (ASCE). This group reported the following topics should be considered:

a. Occupational Safety -- How Are People Affected?

b. Human factors worker related issues.

c. Transportation - route planning, mode of operation, how to obtain maximum safety, emergency response, mitigation of accidents, and general preparedness.

d. Report scientific research on public perception and evaluation of risk - possibly a panel discussion on this topic.

e. Systems Overview - Perhaps at the tutorial level discuss the models actually in use. Site characterization which would discuss the geological data and the organization and interpretation of the data.

f. Repositories - what is known and what is the experience including a discussion of the programmatic developments compared to the schedule.

g. Discuss the differences among regulatory approaches in various nations.

h. Monitored retrievable storage.

i. Repository nuclei releases, risk analysis, and mitigation measures.

j. Engineered and natural barriers.

Group II, under the leadership of Paul Childress (ASME), suggested the following:

a. Discuss the framework of the U.S.A. waste management system including legislation, DOE involvement, and public involvement.

b. Description of regulations and standards.

c. Describe the total waste management system including transportation, MRS, foreign experience, and other nations.

d. The experience of foreign systems such as those used by the United Kingdom, France, Germany, the Peoples Republic of China, U.S.S.R. and others.

e. Describe the DOE system model and describe any changes to the system when there are variations in the number of trips, etc., and also discuss the man-rem irradiation risks and fatality risks.

f. Other areas mentioned were storage above ground, storage under ground, geo-technical waste package, transportation, socio-economic, public involvement, licensing, operating issues and health effects, placement of equipment, environmental monitoring, and manpower requirements.

Group III - Steve Frishman, State of Nevada.

Steve's group reported that:

a. The program should look at the overall design and generally be organized to preparing the attendees for the one-day visit to the site.

b. They recommended that the opening Plenary be an overview of the health and safety factors.

c. A description of the U.S.A. program and other worldwide programs such as those existing in Sweden, France, Japan, United Kingdom, U.S.S.R. and Peoples Republic of China. The group recommended that the program for the first day be organized to gain the attention and attendance of public officials.

d. Site characterization including health and safety factors, definitions and regulations.

e. Repositories and interim storage.

f. To organize the programs so that the contributed and some invited papers be placed in technical sessions held after the Plenary session.

Group IV - David Waite, Health Physics Society.

His group suggested many of the same points made by the earlier group but recommended organizing the conference on the basis of natural, engineered, social, and intergrated systems including a plenary session for each. The group also suggested that the plenary sessions specifically address both the short-term and long-term issues.

8. Preliminary Technical Program.

Chairman John Bartlett asked the four group leaders to meet together to draft a preliminary technical program along the line of engineered systems and integrated systems. The four met after the Program Committee meeting and worked out the preliminary technical program which is shown as Attachment A.

9. Program Committee Assignments.

a. Call for Papers. A call for papers will be developed by the Program Committee based on suggestions made at this meeting. A smaller advisory group of the committee to be appointed by the chairman will be asked to help develop this call for papers, which will be

prepared by the American Nuclear Society and distributed according to plans worked by ASCE and ANS.

b. Selecting disciplines that are currently missing from the Program Committee such as hydrology, climatology and others. The committee recognized that the American Geological Union is the best source for much of these scientific disciplines and asked Octave J. Du Temple, Executive Director of ANS, to talk with Fred Spilhaus, Executive Director of AGU, in order to get from Fred suggested individuals to serve and work on the Program Committee.

c. Contacts with societies concerned with "materials" seems necessary. Contacts with societies like ASME, Materials Research Society, ASM, etc. seem advisable. Paul Childress agreed to make the necessary contacts for suggestions of individuals to appoint to the Program Committee. Robert Philpott agreed to contact the Materials Research Society for suggestions.

ASM

d. Environmental science and technology input also needed. John Bartlett will talk to Linda Ullman.

e. Social Science and the Environment. Contacts with the societies on risk analysis and others are to be made by Paul Childress and/or Michael Lindell. Transportation systems and technology needs a contact. Bob Jefferson, a consultant, may be a candidate.

f. Components Facilities and Design. Input in this area will be needed and would be developed through the American Society of Mechanical Engineers.

g. Climatology and Meteorology. John Bartlett will make the contacts in this area, possibly contacting the American Meteorological Society, which is headquartered in Boston.

h. Performance Assessment. J. C. Laul will develop this contact and report back to John Bartlett.

i. Regulation and Compliance. Michael Bauser, Attorney, was suggested as a contact. Scott Dam also volunteered.

j. Program Review Procedures. Procedures proposed were explained by John Bartlett, Chairman. In summary, authors will be asked to submit an extended summary for review by the review committee which meets together as a whole. Specialists within the committee and from various societies will review and determine whether to accept, reject, or ask for revisions, or in some cases,

7

combine papers. Based on this review, the meeting program will be finalized, and ANS will inform all authors as to the status of their paper.

k. Publication of the Proceedings (see Attachment C). The committee asked for a brief summary of how the proceedings would be published. Mary Beth Gardner of the ANS staff explained that the authors of accepted papers will be given instructions by ANS as to how to prepare their papers along with camera-ready mats. Papers will be prepared in 8 1/2" x 11" camera-ready format. ANS headquarters will review and properly organize the document for printing by ASCE. All of the front-end material including cover and the author index will be prepared by ANS and given as a complete document to ASCE for printing. As approved by the Steering Committee, each author would be allowed 8 pages per paper in the proceedings. If the author requires more than 8 pages, the author or his employer will be billed at $75 per additional page. ANS will bill these page charges. The funds will be used to help defray the costs of the publication and/or other costs of the meeting as required.

10. Program Committee Meeting.

The next Program Committee meeting will be Wednesday, February 15, 1989 in Washington, D.C. Prior to that time, the full committee should be appointed in order to handle the paper review of all disciplines involved in the Yucca Mountain Project. At that time, the committee should also be prepared to arrange or suggest chairmen and vice chairmen of the various sessions and suggest authors for the papers presented in the plenary sessions. The call for papers and the final details of the program must be approved at the February 15, 1989 meeting. A draft call for papers should also be available to the Program Committee at that time.

11. Invitation of Plenary Speakers, Luncheon Speakers and Other Special Events.

THe Program Committee will recommend people to speak at the Plenary sessions. In determining the list of invitees for the first Plenary session, coordination will be required between the General Chairman of the conference, Dean William Wells and the Executive Director of the American Society of Civil Engineers, Dr. Edward Pfrang, and the Chairman of the Program Committee, Dr. John Bartlett.

12. Principles of Operation.

As mentioned at the start of the meeting, John Bartlett stated that much of the original document that he presented to the committee needs to be revised to conform with the ideas of the Program Committee. Bartlett will rewrite this document and send it for comments to the committee members.

John W Bartlett

John W. Bartlett, Chairman

Octave J Du Temple

Octave J. Du Temple, Secretary

9

Attachment A

PRELIMINARY TECHNICAL PROGRAM
HIGH LEVEL RADIOACTIVE WASTE MANAGEMENT CONFERENCE
April 8-11, 1990
Las Vegas, NV

Sunday, April 8, 1990

Sunday Evening Reception

Monday, April 9, 1990

8:30 am Plenary Overview

Long-term Priorities & Issues - Post Closure
Short-term Priorities & Issues - Site Characterization, Operations, Decommissioning

Noon Speaker

1:30 pm Plenary: Social Systems Overview

Long-term
Short-term

3:00 pm Technical Parallel Sessions on:

(a) Socio-Economic Impact Assessment
(b) Socio-Economic Input Mitigation
(c) Legal, Institutional and Political Issues
(d) Public Acceptance & Involvement

Tuesday, April 10, 1990

8:30 am Plenary Overview: Natural & Engineered Systems

10:30 am Technical Parallel Sessions on:

(a) Natural Systems
(b) Geology Hydrology
(c) Climatology Geochemistry
(d) Interim Storage
(e) MRS - Monitored Retrievable Storage
(f) Waste Package/Waste Form
(g) Repository Engineering
(h) Transportation
(i) Exploratory Shaft Facilities Engineering

Noon Speaker

1:30 pm Technical Sessions

Continuation of morning sessions

Preliminary Technical Program

Wednesday, April 11, 1990

8:30 am Plenary Overview: Integrated Systems

10:00 am Technical Parallel Sessions on:

(a) Human Factors
(b) Occupational Safety
(c) Emergency Preparedness
(d) Licensing & Environmental Impact Statement

Noon Speaker

1:30 pm Technical Papers

Continuation of morning sessions

Exhibits Sunday pm-Wednesday Noon, April 8-11, 1990

Draft Prepared by:

Paul Childress, American Society of Mechanical Engineers
Michael Lindell, American Society of Civil Engineers
David Waite, Health Physics Society
Steve Frishman, State of Nevada

OJDT/mm
12/19/88

ATTACHMENT 3

HIGH LEVEL RADIOACTIVE WASTE MANAGEMENT CONFERENCE
PROGRAM PLANNING MEETING
December 14, 1988
L'Enfant Plaza Hotel
Washington, D.C.

ATTENDANCE SHEET

Name	Affiliation
Chair: Dr. John W. Bartlett Manager, Nuclear Technology The Analytic Sciences Corp. 55 Walkers Brook Drive Reading, MA 01867	American Nuclear Society
Mr. Clyde P. Jupiter Jupiter Associates Inc. 511 Wheaton Plaza North Wheaton, MD 20902	American Nuclear Society
Dr. Roy G. Post University of Arizona Nuclear Engineering Dept. Tucson, AZ 85721	American Nuclear Society
Mr. Jack C. Scarborough U.S. Nuclear Regulatory Comm. Tech. Asst. to Commissioner K. C. Rogers Washington, D.C. 20555	American Nuclear Society
Mr. Dillard B. Shipler Science Applications Int'l. Valley Bank Center, Ste. 407 101 Convention Center Drive Las Vegas, NV 89109	American Nuclear Society
Mr. Octave J. Du Temple Executive Director American Nuclear Society 555 N. Kensington Avenue La Grange Park, IL 60525	American Nuclear Society
Mrs. Mary Keenan Manager, Meetings Dept. American Nuclear Society 555 N. Kensington Avenue La Grange Park, IL 60525	American Nuclear Society
Mrs. Mary Beth Gardner Manager, Publications Dept. American Nuclear Society 555 N. Kensington Avenue La Grange Park, IL 60525	American Nuclear Society

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Dr. J. C. Laul 607 Cherrywood Loop Richland, WA 99352	American Nuclear Society Battelle Northwest
Mr. William Culbreth University of Nevada-Las Vegas 4505 S. Maryland Parkway Las Vegas, NV 89154	University of Nevada-Las Vegas
Dean William Wells University of Nevada-Las Vegas 4505 S. Maryland Parkway Las Vegas, NV 89154	University of Nevada-Las Vegas
Dr. George Bierkamper (absent 12/14/88) University of Nevada Medical School Dept. of Pharmacology Reno, NV 89557	University of Nevada
Mr. J. Bennett Easterling Director, Policy & Institutional Planning Division Office of Civilian Radioactive Waste Management U.S. Department of Energy Washington, D.C. 20585	U.S. Department of Energy
Mr. Robert Philpott U.S. Department of Energy MS RW-40 Washington, D.C. 20585	U.S. Department of Energy
Mr. Max L. Powell Yucca Mountain Project Office Nevada Operations Office U.S. Department of Energy Phase II, Suite 200 101 Convention Drive Las Vegas, NV 89109	U.S. Department of Energy
Ms. Susan Niemcyzk Gull Associates 1545 18th St., N.W., Ste. 112 Washington, D.C. 20036	American Chemical Society
Mr. Michael K. Lindell Michigan State University 129 Psychology Research Bldg. East Lansing, MI 48824-1117	American Society of Civil Engineers

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Mr. Stephen D. Lowe American Society of Civil Engineers 345 East 47th Street New York, NY 10017	American Society of Civil Engineers
Mr. Edward O. Pfrang American Society of Civil Engineers 345 East 47th Street New York, NY 10017	American Society of Civil Engineers
Mr. Paul C. Childress B&W Fuel Company P.O. Box 10935 Lynchburg, VA 24506-0935	American Society of Mechanical Engineers
Dr. William R. Hendee American Medical Association 535 N. Dearborn Chicago, IL 60610	American Medical Assoc.
Mr. John A. McBride ER Johnson Associates, Inc. 10461 White Granite Dr., Ste. 204 Oakton, VA 22124	Institute of Nuclear Materials Management
Mr. Steve P. Kraft 1418 T Street, N.W. Washington, D.C. 20009	Edison Electric Institute
Mr. Douglas J. Lootens Dames & Moore 1626 Cole Blvd. Golden, CO 80401-3387	Society of Mining Engineers
Mr. Steve Frishman Technical Policy Coordinator State of Nevada Agency for Nuclear Projects Nuclear Waste Project Office Capitol Complex Carson City, NV 89710	State of Nevada
Mr. V. Dale Hedges CER Corp. P.O. Box 15090 Las Vegas, NV 89114	American Society for Quality Control
Dr. David Waite Envirosphere Co. 10900 N.E. 8th St. Bellevue, WA 98004	Health Physics Society

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Mr. Stephen Stow Oak Ridge National Lab. P.O. Box 2008, Bldg. 1505, MS-6038 Oak Ridge, TN 37831-6038	Geological Society of America, Inc.
Ms. Cheryl Runyon Nuclear Conference of State Legislators 1050 17th St., Ste. 2100 Denver, CO 80265	Nuclear Conference of State Legislators
Dr. Martin Siegel American Institute of Chemical Engineers 1707 L St., N.W., Ste 333 Washington, D.C. 20036	American Institute of Chemical Engineers
Mr. Robert D. Zimmerman Science Applications Int. 101 Convention Center Dr., Ste. 407 Las Vegas, NV 89109	American Institute of Chemical Engineers
Dr. Philip Justus U.S. Nuclear Regulatory Comm. MS-483 (WSN) Washington, D.C. 20555	U.S. Nuclear Regulatory Commission
Mr. Edward L. Helminski 420 C St., N.E., 2nd Fl. Washington, D.C. 20002	THE RADIOACTIVE EXCHANGE

OJDT/mm
12/19/88

Attachment C

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AMERICAN NUCLEAR SOCIETY
PUBLICATION PLAN FOR
INTERNATIONAL HLRW MANAGEMENT CONFERENCE
APRIL 8-12, 1990

Purpose of the Meeting

To establish an annual conference, international in scope, dedicated to the presentation and exchange of scientific and technical information related to the management, storage, transportation and disposal of high level nuclear waste including the siting, design, licensing, construction and operation of a deep geologic repository.

Publication Plan

1. Full papers (8 pages per paper) or extended summaries (1500-2000 words) will be published in camera-ready format ready for distribution at the meeting. Authors will prepare papers on camera-ready mats according to publishing guidelines provided to authors by the American Nuclear Society. ANS will organize the proceedings, and prepare the front and back matter of the set.

   ANS will design and provide the camera-ready cover and mats to ASCE for printing.

   ANS will provide an estimate of costs which will be recovered from the meeting. A page charge of $75 per page over 8 pages for full papers will be incurred by authors in order to recover costs that may be incurred as a result of an unexpectedly larger publication than planned. If extended summaries are published, 4 camera-ready mats will be allowed; mats submitted over 4 will also be billed at $75 per page.

2. ANS will also provide the staff support for all activities prior to and including the paper review meeting. ANS will perform the following:

   a. Coordinate sessions for Call for Papers with other societies

   b. Organize and print the Call for Papers

   c. Coordinate the peer review of papers during the paper review meeting

   d. Supply all staff support during the paper review meeting

   e. ANS will communicate with all authors regarding acceptance, rejection, combination or revision of papers

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f. ANS to mail all authors camera-ready mats with guidelines for preparation of their accepted paper

g. ANS will compile the proceedings and supply ASCE with camera-ready cover and copy for printing.

3. ANS guidelines for acceptance of papers will be used during the paper review. Supporting information regarding the ANS review process is attached.

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GENERAL ACCEPTANCE GUIDELINES OF SUMMARY (PAPERS) FOR NATIONAL ANS REVIEW MEETINGS

1. Both the purpose or objective(s) and the conclusion(s) of the summary should be clearly stated.

2. The summary will succinctly discuss how the conclusion(s) was reached, based on the objective(s) provided in the summary. For example, a discussion of the analytical methods applied and the results could provide the necessary connection between the objective(s) and the conclusion(s).

3. The summary should report significant new facts or ideas which have not been published in the open literature.

4. The equivalent word length of the summary must satisfy existing standards of the National Program Committee, with the author(s) of the summary responsible for understanding the applicable standards. (This requires the distribution of the respective meeting's "Call for Papers" to all reviewers.)

5. All figures or graphics contained in the summary must be reasonably organized, with detail kept to a minimum, clearly understandable, and -- importantly -- consistently independent. For example, multiple independent figures arranged and titled as one figure is not acceptable.

6. While the citation of pertinent references is helpful to the reviewer, the length of the reference material list must be limited to that which is absolutely necessary. Each reference listed at the end of the summary must be appropriately cited in the narrative or text of the summary.

7. If applicable, the summary should give proper credit to key individual(s) whose work on the same subject matter or topic has been used to help reach the stated conclusions.

8. The contributed summary must be categorized as addressing the technical interest of the Society. Even though policy or socio-technical oriented issues may provide interesting discussions, contributed summaries are limited to technical subject matter; other ANS program formats are available for non-technical subjects.

9. Contributed summaries providing the progress or status of a continuing program or project must clearly discuss significantly new developments since previously submitted and published summaries.

6. After you have finished one folder of summaries, pick up another. You may now be a second or third Reviewer. Again identify your decision on the Summary Review Form of each summary. In some cases, you may disagree with a decision or an explanation of previous Reviewers and should then discuss this to arrive at a common decision and/or a mutually agreeable explanation.

7. Shifting of summaries from one division to another must be completed by the evening of the first full day of review. Keep written track of summaries on the session folder log.

REJECTION, REVISION OR COMBINATION LETTERS

1. A Rejection, Revision, or Combination decision must be explained in a letter to the author(s). Usually, the first reviewer writes initialed notes (under the comments section) explaining his/her position for the benefit of other Reviewers. After the folders have been read by several Reviewers (see section on CORRECTIONS), a Rejection, Revision, or Combination explanation is written by the Division Representative (or his designee who must also be a NPC Member) on the appropriate form. These forms will be available for your use in the Review Room.

2. Rejection, Revision, and Combination explanations must pinpoint the specific reasons for the Reviewers' decision, telling the author(s) just what is expected and why. These explanations must be brief, must be written with care, must not be ambiguous and must be based on firm and valid grounds to support the decision. You should be satisfied that you would not be offended to receive your own letter. It must be emphasized that these explanations augment the wording on the appropriate form letter; the letter cannot be used without the specific explanations.

3. Division Representatives will be responsible for these explanations and must ascertain that correctly drafted letters are attached to each summary that falls in these categories. In the case of a Combination, a form letter with a suggested title for the combined summary must be filled out for each summary involved. The draft letters must be initialed as approved by the Division Representative.

CORRECTIONS TO SUMMARIES

If you wish to make a correction on an otherwise accepted summary (not to be returned for revision) make the correction on your copy and have one of the office staff Xerox the corrected sheet for the TRANSACTIONS Editor's use. Be sure to write the log number of the summary on the Xerox copy so the changes will be made for TRANSACTIONS publication.

REJECT BOX

After three rejection decisions have been obtained and agreed to on a consistent basis and a well-written rejection explanation is attached, the summary is placed in a "Reject Box." Reviewers should go through the Reject Box before summaries are organized into sessions and reconsider their earlier rejection decision in light of comparison with subsequent summaries they may have reviewed and accepted. Summaries rejected by one Division may sometimes be acceptable to another. Final rejection letters which must have been initialed by the Division Representative will be reviewed by the TPC (or his designee) beginning about 10:00 a.m. on the second day and must be completed before the session room assignments

CONFERENCE TECHNICAL PROGRAM
(October 23 to 25, 1989)

The management of nuclear waste (both low/intermediate and high level) and spent nuclear fuel has become a major international issue as the use of nuclear power has increased worldwide. The intent of the conference technical program is to present the latest information on progress in all areas of nuclear waste management. The proposed technical and poster sessions will address the generation, treatment, transportation, storage, and final disposal of [redacted] nuclear wastes. The scope of the presentations will range from overviews of major national programs to technical details on the latest developments in [redacted] treatment and disposal technologies. The technical program is divided into two parallel programs which include the following technical sessions:

HIGH-LEVEL WASTE AND SPENT FUEL MANAGEMENT

- International HLW Vitrification Technology
- Transportation of HLW and Spent Fuel
- Update on International HLW Management Technology
- Acceptability of HLW Forms for Disposal
- Optimization of Reprocessing and HLW Operations
- International HLW Disposal Systems
- Spent Fuel Storage Systems and Experience
- HLW Disposal Performance Data and Assessments
- Spent Fuel Conditioning and Packaging for Disposal
- Poster - Science of HLW Treatment and Disposal

LOW-AND INTERMEDIATE-LEVEL WASTE MANAGEMENT

- National Programs
- Waste Processing Experience
- Waste Volume Reduction and Solidification
- Incineration Experience
- Dry Active Waste (DAW) Management
- Recent Waste Management Technologies
- Waste Assay, Characterization, and Performance Modeling
- Decontamination and Decommissioning Wastes
- Disposal Issues
- Regulatory, Programmatic and Institutional Aspects
- Waste Management in Developing Nations
- Poster - Science of LLW Treatment and Disposal

Over 250 abstracts have been received for the above 22 sessions representing a broad cross section of authors from about 20 countries in Asia, Europe, North and South America. The technical program will include [redacted] national program overviews by countries with developed nuclear power generation programs. The program will be of interest to participants from the leading nuclear power generation countries as well as to those from countries where nuclear power is only a consideration.

Our committee is supporting this conference by participating in the planning, soliciting papers, providing session chairs, and reviewing final papers. The ASME has the requirement that each paper be reviewed by three technical experts. Steve Slate, who is the HLW Technical Program Chairman, is coordinating the review, and he still may need a couple of reviewers by the time you get this. If any of you would like to help in the review, which is taking place now through early March, please call Steve on (509) 376-5957.

General Committee
Please provide comments
to Ken Adler

The American Society of Mechanical Engineers

Suite 216
1825 K Street, N.W.
Washington, DC 20006-1202
202-785-3756

September 30, 1988

K. Adler
Energy Technology Engineering Center
Rockwell International
P.O. Box 1449
Canoga Park, CA 91304

Dear Mr. Adler:

As you are aware, the nuclear issue periodically surfaces in California. The ASME State Government Coordinator in Sacramento, Don Cunningham, has been active in alerting our members about the initiatives that were to be on the June ballot. The initiatives did not have the necessary signatures.

Don Cunningham has been attempting to develop a fact sheet or "backgrounder" that would help educate legislators and the public about the pros and cons of nuclear plants. Don is looking for assistance from active ASME Nuclear Engineering Division personnel. He "believes that ASME members should be continually updated on nuclear issues, particularly legislative and regulatory changes, as well as safety and cost considerations." He feels strongly enough about this matter that he wants to spend a portion of this Coordinator time on this issue. He notes that the Legislature is in a quiet period until December. Despite the fact that he is not a nuclear power plant specialist, he believes he can play a role in bridging the gap between nuclear experts and lay engineers (I assume he also means the lay legislator). His first piece needed rewriting so we asked him to present a second draft. Attached is his preliminary copy (second draft).

Is it worthy of distribution? If yes, to whom would you recommend distribution. Would you suggest changes in the material or recommend that he abandon the project?

Thank you in advance for your time and consideration.

Sincerely yours,

Bruce Conlin Jr.

Bruce Conlin, Jr.
Director, State and Local
Government Relations

BC:vw

cc: J. Mayer, Jr.
H. Tinning - 5A
P. Hamilton
E. J. Britten

PRELIMINARY COPY

HAS THE LAST NUCLEAR POWER PLANT IN THE U.S. BEEN BUILT?

by Don M. Cunningham

Arguments in favor of building and operating more nuclear power plants.

1. It is the cleanest fuel of all. Barring accidents, it does not throw anything into the air. (See Table I)

2. Nuclear fuel is cheaper per kilowatt hour than oil, coal or gas.

3. Nuclear power plants are less expensive than oil, coal or gas plants if the capital cost and fuel costs are amortized over a 30 year period (plant life expectancy is 40 years or more).

4. Nuclear power plants are becoming very safe as designs are improved and standardized, operating procedures perfected. Actually, to date, there have been more fatal accidents in drilling, mining and burning oil and coal than for nuclear.

5. Nuclear power plants are aesthetically satisfying. You could live next door to a 1000 Mwe nuclear plant and see nothing in the air (except cooling water "steam"), hear nothing and smell nothing.

6. The more nuclear power plants we build the less we depend upon foreign oil. We have lots of uranium. (20% of the world's supply.)

7. The radiating waste from nuclear plants will be effectively disposed of. It will be solidified, cast in glass, sealed in stainless containers, monitored and buried 2000 feet underground in a stable geologic formation.

8. We must conserve our domestic oil because it is used for so many products besides fuel oil and gasoline: plastics, detergents, pharmaceuticals and perfume.

9. It is physically impossible for a nuclear reactor to explode. The fuel rods are only 3% uranium. At least 97% would be required for a critical concentration for a bomb.

10. The so-called alternate energy sources like wind and solar can only supply about 2% of our energy needs. Hydro, in the mountainous states, supplies up to 20% of their needs.

TABLE I SOURCES OF ATMOSPHERIC POLLUTION

	COAL	OIL	NUCLEAR
CO_2	7,800 *	4,700	0
SO_2	40,000	91,000	0
NO_2	9,500	6,500	0
ASH	6,000	1,600	0

Tons of atmospheric pollution per year for a 1000 Mwe power plant.

+ From: "The World Outlook Energy Outlook and the Implications for Nuclear Power" by J. P. Capron. Printed by the U.S. Council for Energy Awareness, Wash. D.C.

Arguments against building and operating nuclear power plants.

1. The possibility of nuclear power plants melting down, leaking radiation and warming a nearby stream, lake or ocean is intolerable.

2. Nuclear power plants have exceeded their construction, insurance, and operating costs by several times.

3. Nuclear power plants must have a contingency plans for evacuation of the populace. Other types of plants do not.

4. Let us use up our coal, oil and gas before we even consider building more nuclear plants.

5. The high-level radioactive waste from nuclear power plants must be transported, buried and monitored for thousands of years.

6. The life expectancy of nuclear reactors is only 40 years. Some coal and oil-fired plants have already operated longer than this.

7. Earthquakes can break or crack a nuclear plants' pipes or containment vessel allowing radioactive pollutants into the atmosphere.

8. Relatively clean fusion power is the final answer. Much more of U.S. funding should go into this research.

9. Californians would like to have fewer nuclear reactors as a partial means for limiting the population influx.

10. We particularly do not want the fuel-saving breeder reactors because one of the by-products is bomb-ready plutonium.