

**CERTIFIED**

MINUTES OF THE MEETING OF THE ACRS  
SUBCOMMITTEES ON REACTOR RADIOLOGICAL EFFECTS  
AND SITE EVALUATION  
JANUARY 3-4, 1985  
WASHINGTON, DC

The ACRS Subcommittees on Reactor Radiological Effects and on Site Evaluation met on January 3-4, 1985 at 1717 H Street, N.W., Washington, D.C. 20555. The goals of the meeting were to discuss the Proposed Amendments to 10 CFR Part 50, Section 50.47 and Appendix E: Consideration of Earthquakes in the Context of Emergency Preparedness, and to draft for the ACRS a letter of recommended actions for Committee consideration.

Notice of this meeting, published in the Federal Register on Thursday, December 27, 1984, is reproduced and shown in Attachment A. The detailed schedule for the meeting is Attachment B. A list of is Attachment C. Attachment D is a list of meeting handouts kept with the office copy of the minutes. The entire meeting was open to public attendance. There were no oral or written comments from members of the public. Mr. Owen S. Merrill was the assigned ACRS staff Member for the meeting.

Background-D. W. Moeller

Mr. Moeller presented a brief history of the issue. The ACRS wrote to the NRC Executive Director of Operations on March 16, 1981 on the subject of earthquakes in the context of emergency preparedness, and noted that the Commission ruled that it was not necessary to consider the issue when it was raised at the San Onofre and the Diablo Canyon hearings. He also pointed out that the proposed rule states that the probability of simultaneous occurrence of an earthquake and a reactor accident is very low, and that the probability of an earthquake induced nuclear accident is itself low. Yet some experts think that earthquakes can be a major, even dominant, contributor to the total risk for nuclear power plants. Although FEMA does not formally consider earthquakes in their reviews of off-site emergency preparedness plans associated with nuclear power plants, they do consider them on an informal basis. This meeting was to gather additional information to clarify some of the apparent confusion with regard to the issue.

Mr. Moeller said that the Commission had requested that the ACRS address the following questions and provide supporting technical information:

1. Should the NRC adopt a general rule incorporating the San Onofre and Diablo Canyon decisions?
2. If the issue is not approached on a generic basis, should it be handled on a case-by-case basis?
3. Should the rule be expanded to include low frequency natural events other than earthquakes?
4. If low frequency natural events must be considered in all cases, should cost effectiveness be considered?

Applying Non-Nuclear Experience to Nuclear Emergency Preparedness- J. M. Lucas

Mr. Lucas, Director of Emergency Preparedness, St. Charles Parish, LA, presented an overview of their Emergency Preparedness Program. He described the function and funding of their organization, and discussed their operating procedures and experience. St. Charles Parish is a highly industrialized area on the outskirts of New Orleans with a population of about 100,000 people, having 34 major industries (including several chemical and petroleum plants and a nuclear power plant, Waterford Unit No.3), and crossed by 5 major highways, 5 major railroads, and the Mississippi river (with 134 commercial vessels passing through the area daily).

Mr. Lucas pointed out that their responsibility begins at the outside of the company perimeter. They depend on the company involved to provide them with two key pieces of information when an accident occurs; 1) the Notification Procedure, and 2) the Emergency Action Level. He, fortunately, has only one government to deal with, St. Charles Parish. The President of the Parish decides whether to declare an emergency; once an emergency is declared, the Director of Emergency Preparedness coordinates the response. An alarm tells the people to go to a radio for instructions on the appropriate action to take (i.e., close their houses; go to a shelter; evacuate the area; etc.). They have special radio contact with schools.

In response to Mr. Ebersole's question on cascade effects, i.e. the effect of accident emergency actions on the safe operation of nearby plants, Mr. Lucas said that his organization does not participate in the "in-plant" programs developed by plant operators to deal with emergencies of their own or other plants. However, he said there is good inter-plant cooperation, and excellent industry-government cooperation with high community awareness and support, key elements of a successful program.

Mr. Lucas mentioned that the area averages about 15 incidents (i.e. some hazardous release) per month, most of which result in

sheltering as an appropriate response; 7 incidents last year called for evacuation. Because of the rapid response time generally required for chemical accidents, he considers them more dangerous than nuclear accidents. He mentioned that while their plans are designed to deal with an area of radius as large as 10 miles, in practice, areas with radii of about 2 miles are sufficient. As an example of how well their program works, for an accident in 1982 they evacuated 17,000 people in pouring rain at 40 F in about 2.5 hours, without mishap. Mr. Carter asked if, in general, there were any problems with regard to adequate compensation for evacuation expenses. Mr. Lucas said that they have not had compensation problems, that the industries have tended to be generous.

While the NRC would require a 2 year drill cycle, they have quarterly drills with industry where they pool resources through their Emergency Preparedness Center. Mr. Lucas emphasized the importance of broad community acceptance of their program and good advance planning (e.g. they plan for the maximum credible hurricane to determine where problems will be most severe, what the problems will be like, and how they will be treated). Since their responsibility in all cases begins at the outer perimeter of any plant, they are as prepared to handle a nuclear incident (concurrent with or caused by an earthquake, tornado, etc.), as they would be for a chemical release or any other type of incident. The key ingredient seems to be preparedness to handle any type of "worst case" incident, without particular attention being paid to its cause.

An Overview of Seismic Risks and Evacuation Considerations from Nuclear Power Plants based on PRA Studies-P. R. Davis

To provide a frame of reference for the Subcommittee, Mr. Davis, an ACRS Consultant, structured his presentation around the following four questions, acknowledging from the start that he did not really have satisfactory answers to any of them:

1. What is the contribution to nuclear plant risk from seismic events?
2. What earthquake size dominates nuclear power plant risk?
3. How important is evacuation in reducing risk?
4. How much risk reduction could be obtained by providing for evacuation during earthquakes?

Mr. Davis described the three major steps in performing a risk analysis. The first step consists of a seismic analysis to predict how frequently various sized earthquakes occur at the site in question. The second step involves a fragility analysis to determine what kind of acceleration the systems of interest can sustain and continue to operate satisfactorily. The third step is a plant logic analysis which is much like the development of an event tree methodology to determine those systems and sets



of systems which if failed would lead to certain accident conditions. The results of these analyses are brought together to determine the risk. He listed those plants for which PRA studies have been completed, and discussed a comparison of the seismic contribution to the core melt probability for four of them, pointing out the wide variation in results. Mr. Ebersole asked if this was due to design variations. Mr. Davis said that he believes the variation is due to uncertainties in doing the analyses. For example, he presented a set of seismic hazard curves for a particular site which showed that for a given size quake there is a seismic hazard range of almost three orders of magnitude as calculated by various experts. Consequently, there are also large uncertainties in the assessment of fragility because equipment is not designed for earthquakes above the SSE.

Mr. Davis made the following concluding statements with regard to the above questions:

1. Based on existing PRA studies, seismic risks, relative to total plant risks, vary from insignificant to very significant.
2. Earthquakes in the range of 2 to 4 times the SSE (i.e., in the range from 0.2g to 0.8g for most plants) dominate seismic risk.
3. Early evacuation appears to be relatively unimportant for latent fatality risks, but can be important with regard to early fatalities for large, early releases.
4. Relative risk reduction from evacuation during seismic induced accidents at nuclear power plants is difficult to quantify and appears to vary significantly depending on plant type, location, and methodology employed.

Mr. Moeller asked what is the probability of occurrence of an earthquake that is 2 to 4 times the SSE. Mr. Davis responded that it depends on the expert making the estimate and the plant site. For example, at Millstone, the probability for a 0.3g earthquake would range from one in a million years to one in 5,000 years.

Mr. Davis said that he thought a definitive general statement on the significance of seismic risk could not be made at this time because a) limited results are available, b) there are wide variations in existing results and much uncertainty, c) seismic risks are both plant specific and site specific, d) many results are still under review and some are being revised, and e) there are many different assumptions and methodologies employed in assessing risks.

#### Tornado and High Wind Hazard Probabilities-R. Abbey

Mr. Abbey, Director of Meteorological Research, Office of Naval Research, said that his presentation would treat only wind speeds

and pressure drops associated with tornados, and not such things as tornado missiles and their associated effects. He focused on how tornado wind speeds are measured, the probabilities of tornado wind speeds (i.e., tornado hazard or risk models), and the variation of tornado wind speeds across the United States. He pointed out that there are at least four major areas of sensitivity with regard to tornado hazard probability modeling: 1) Number of tornados; 2) Tornado path area; 3) Tornado severity or intensity; and 4) Spatial variations along the tornado path.

Wind speeds can be measured directly with an anemometer, by photogrammetry (i.e., the analysis of measurements of particle displacements from motion pictures taken of the tornado in progress), or with Doppler radar, and indirectly by an engineering assessment of damage done or an analysis of characteristic tornado ground marks (i.e., cycloidal ground marks caused by the suction of mini-vortices as they whirl about a common center). He said that experts are converging on a value for the maximum tornado wind speed; they estimate that the maximum wind speeds, combined rotational plus translational, are on the order of 300 mph.

Several years ago Mr. Abbey made a comparison of the results from five different tornado hazard models available. Utilizing exactly the same data sets, he calculated wind speeds that ranged from 280 to 860 mph. It should be noted that the level of sophistication of the models varied widely (i.e., from a constant velocity profile, maximum velocity across and along the path - to a ramp up to some maximum and a ramp down to zero at the core - to variations along the path as well as across the path), with the more realistic models tending to yield less conservative results. In order to use the results properly, one must be aware of the details of the model used to generate them.

Mr. Abbey also discussed regionalization, the organization of tornado data in terms of some property or effect and the observation of the variation of the data with location across the country, i.e., with region. Tornados have been regionalized with regard to wind speed, frequency of tornado reports, number of deaths, extent of property damage, and probability of maximum threat.

Mr. Abbey mentioned that the most likely tornado damage done to a nuclear power plant would consist of effects, if any, resulting from the loss of off-site power. In response to Mr. Ebersole's question concerning the mechanism by which tornadoes cause damage, he noted that on investigating tornado damage, he has not found negative pressure transient damage to structures from tornadoes but rather wind velocity damage. Nuclear power plants are built to readily withstand such wind velocity forces.

The FEMA (Federal Emergency Management Agency) Emergency Preparedness Program for Off-site Safety, and The FEMA Natural and Technical Hazards Program-R. Krimm

A. Radiological Emergency Planning and Preparedness Program

Mr. Krimm, Assistant Associate Director for the Office of Natural and Technological Hazards, began by describing FEMA's responsibility in the area of radiological emergency planning and preparedness. FEMA has responsibility for dealing with civilian emergencies from military, natural, and technological standpoints. The main objective of FEMA's Radiological Emergency Planning (REP) Program is to enhance state and local capabilities to plan for and respond to radiological emergencies. FEMA is required to review off-site preparedness and report to the NRC as to whether the health and safety of people living in the vicinity of nuclear power plants would be adequately protected in the event of an accident. FEMA has a memorandum of understanding with the NRC which establishes a framework for cooperation between the two agencies.

The criteria for preparation and evaluation of the radiological emergency response plans and preparedness in support of nuclear power plants are contained in NUREG 0654/FEMA Rep 1. There are 16 planning standards which deal with assignments of responsibility for state and local governments, and 196 evaluation criteria. Mr. Krimm expressed the view that any community that participates in the REP program has in place an emergency plan that can be used for responding to almost any type of emergency that they may encounter, whether it be a flood, a hurricane, a tornado, or a hazardous materials spill. If they have these plans approved, have exercised them, and are ready to implement them, they can respond to any type of disaster. He said that FEMA has not yet developed preparedness planning for chemical facilities, but if a chemical accident occurred in a community and if that community were participating in the REP program, they would be able to use many aspects of the plan for evacuation, direction, control, etc. FEMA would not be able to recommend action with regard to what to do with a specific chemical spill. That would have to come from EPA or the state environmental agency or from a local agency such as a fire department.

Mr. Krimm explained that if a nuclear accident occurs, the plant operator usually notifies the local government first of all, and then the NRC and usually the governor's office. The local government would be the first responder, and then they would call in the state, and depending upon how rapid the accident is occurring, there would be a determination made, by the governor in most states, as to what responses are necessary to provide adequate public protection; the licensee reports the accident, i.e., what is being released, and the state usually determines



the emergency action level. Mr. Orth asked how FEMA defined adequate public protection. Mr. Krimm responded that adequate protection is defined by a plan that meets the criteria of NUREG 0654. He emphasized that FEMA's role is that of coordinator; they look to other federal agencies for technical advice. He said that there are 79 sites, involving 500 state and local jurisdictions, where plans are required and 57 of these are already licensed to operate. He also mentioned that FEMA helps fund the Civil Defense Program.

#### B. National Earthquake Hazards Reduction Program

In 1977, Congress, recognizing the earthquake threat, established the National Earthquake Hazards Reduction (NEHR) Program. The objectives of the program are to encourage local and state governments in seismic areas to develop and participate in preparedness efforts, to have federal agencies do research on the earthquake hazards (which would even include prediction), to develop programs to mitigate against the hazards, and to develop technical assistance for the states. Mr. Krimm said there are four major agencies that participate in the NEHR program: the U.S. Geological Survey which works on hazard delineation and prediction of seismic risk; the National Science Foundation which does earthquake engineering research; the National Bureau of Standards which works on building standards and practices; and FEMA which, acting as the lead agency, recommends goals, priorities, budgets, and target dates. He said that seismic design is the best means of mitigation, next to preparedness planning, and noted that most earthquake engineers he has talked to believe that nuclear power plants are the most seismically safe structures that have been constructed.

Mr. Aldrich asked if FEMA had a method or program for establishing funding priorities. Mr. Krimm said that right now priorities are set on a perceived risk basis; most communities today look at hazardous materials as their most serious risk. He felt, however, that although the REP program is a perfect example of overkill, the program can be justified in terms of the ability of participating communities to handle all types of emergencies. That is, the chances of their having to respond to a nuclear accident are minuscule compared to a flood emergency; any place there is a stream or body of water there is about a 1 percent annual chance of flooding. Floods are probably the most serious hazard as far as the FEMA disaster assistance program is concerned. Mr. Krimm did not think there was much value in explicitly requiring consideration of the simultaneous occurrence of a nuclear accident and a low probability naturally occurring disaster, such as an earthquake, in the REP program because of the very low probability of simultaneous occurrence and the fact that they already look at alternative evacuation procedures in reviewing plans.

Proposed Amendments to 10 CFR 50 on Consideration of the  
Potential Impacts of an Earthquake on Emergency Planning-M.  
Jamgochian

Mr. Jamgochian began his presentation with a background review of the issue following the Commission's decisions on licensing San Onofre in 1981 and Diablo Canyon in 1984. In issuing the Diablo Canyon license the Commission decided that the potential impacts of earthquakes on emergency plans need not be specifically considered, affirming their San Onofre decision relative to earthquakes, and directed the NRC staff to initiate Rulemaking. The rationale for the proposed rule is 1) that emergency plans are flexible, not rigid; 2) FEMA has an active program of earthquake preparedness, and 3) the probability of natural disasters with coincident radioactive releases is low. He said that the most important element is flexibility. Emergency plans consist of such things as forming an organization for implementation, arranging for communications, lining up equipment, and training people to handle the emergency. It does not address each and every problem that may be encountered. For example, emergency plans consider alternate routes for evacuation as well as protective actions for people if all routes are blocked.

The final version of the Proposed Rule was published in the Federal Register on December 21, 1984. The overall focus of the rulemaking is to determine, through public comments, if cost-effective reduction in overall risk can be obtained by explicit consideration of severe earthquakes in emergency planning.

With regard to a radiological release coincident with an earthquake, Mr. Jamgochian described three categories of emergency. He pointed out that, for seismic events up to an OBE, no on-site damage would be expected, and that off-site damage should not hamper protective actions (i.e., sheltering or evacuation). For seismic events that are more severe than an OBE, but do not exceed an SSE, the plant is designed to shut down safely, and off-site damage may be sufficient to hamper evacuation but not sheltering. A seismic event much above an SSE could be assumed to cause significant plant damage, as well as devastating off-site damage, so that the radiological emergency is only part of a much larger problem.

Mr. Moeller noted that FEMA has the responsibility to evaluate state and local off-site emergency plans and report to the NRC on their findings. Their evaluation includes consideration of whether the radiological plan is integrated with all disaster plans. Following this approach, earthquake response planning would be incorporated into the nuclear response planning.

Mr. Jamgochian said that the NRC staff concluded that a) for all earthquakes up to and including an SSE and other low probability natural phenomena, there should be no radiological hazard,



therefore no need to take protective actions, and b) for earthquakes above an SSE, the expenditure of resources to cope with the devastating off-site damages would be of doubtful value considering the modest benefit on overall risk reduction. Therefore, the staff recommended that a proposed rule be published in the Federal Register to obtain public comment on a codification of the Commission's position that the regulations explicitly state that the potential impacts of earthquakes on emergency plans need not be considered.

#### Meeting Results

A letter of recommended actions for Commission consideration was drafted for committee discussion at the 297th meeting of the ACRS on January 10-12, 1985.

#### Future Meetings

No dates were set for future meetings of the Subcommittees.

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#### NOTE:

A complete transcript of the meeting is on file at the NRC Public Document Room at 1717 H St., N.W., Washington, D.C., or can be obtained at cost from Ace - Federal Reporters, Inc., 444 N. Capital Street, Washington, D.C. 20001 [Telephone (202) 347-3700]

strength vacuum-treated rail. Has instructions to cut rails with rail saw and drill bolt holes when installing rail on main track or in making repairs of all kinds.

*Vermont Railway and Clarendon and Pittsford: Nov. 29: R-84-20:* Does not have any high-strength alloy rails. Uses torch cuts only in emergency and restricts speed to 10 mph.

**Note.**—Single copies of these response letters are available on written request to: Public Inquiries Section, National Transportation Safety Board, Washington, D.C. 20594. Please include respondent's name, date of letter, and recommendation number(s) in your request. The photocopies will be billed at a cost of 14 cents per page (\$1 minimum charge).

Dated: December 20, 1984.

H. Ray Smith, Jr.,

*Federal Register Liaison Officer.*

[FR Doc. 84-33530 Filed 12-26-84; 8:45 am]

BILLING CODE 7530-01-02

## NUCLEAR REGULATORY COMMISSION

### Advisory Committee on Reactor Safeguards; Combined Subcommittees on Reactor Radiological Effects and Site Evaluation; Meeting

The ACRS Subcommittee on Reactor Radiological Effects and Site Evaluation will hold a combined meeting on January 3 and 4, 1985, in Room 1046, 1717 H Street, NW, Washington.

The entire meeting will be open to public attendance.

The agenda for subject meeting shall be as follows:

Thursday, January 3, 1985—8:30 a.m. until the conclusion of business  
Friday, January 4, 1985—8:30 a.m. until the conclusion of business

The Subcommittees will review (1) Proposed Amendments to 10 CFR Part 50, Section 50.47 and Appendix E: Consideration of Earthquakes in the Context of Emergency Preparedness, and (2) Proposed Amendments to 10 CFR Parts 30, 40 and 70: Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees.

Oral statements may be presented by members of the public with the concurrence of the Subcommittee Chairman; written statements will be accepted and made available to the Committee. Recordings will be permitted only during those portions of the meeting when a transcript is being kept, and questions may be asked only by members of the Subcommittee, its consultants, and Staff. Persons desiring to make oral statements should notify

the ACRS staff member named below as far in advance as practicable so that appropriate arrangements can be made.

During the initial portion of the meeting, the Subcommittees, along with any of their consultants who may be present, may exchange preliminary views regarding matters to be considered during the balance of the meeting. The Subcommittees will then hear presentations by and hold discussions with the NRC Staff and other invited experts on the above-named topics.

Further information regarding topics to be discussed, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefore can be obtained by a prepaid telephone call to the cognizant ACRS staff member, Mr. Owen S. Merrill (telephone 202/634-1413) between 8:15 a.m. and 5:00 p.m., EST. Persons planning to attend this meeting are urged to contact the above named individual one or two days before the scheduled meeting to be advised of any changes in schedule, etc., which may have occurred.

Dated: December 21, 1984.

Morton W. Libarkin,

*Assistant Executive Director for Project Review.*

[FR Doc. 84-33607 Filed 12-26-84; 8:45 am]

BILLING CODE 7500-01-02

[Docket Nos. 80-440 OL & 80-441 OL]

### Cleveland Electric Illuminating Co., et al. (Perry Nuclear Power Plant, Units 1 & 2); Reconstitution of Atomic Safety and Licensing Appeal Board

Notice is hereby given that, in accordance with the authority conferred by 10 CFR 2.787(a), the Chairman of the Atomic Safety and Licensing Appeal Panel has reconstituted the Atomic Safety and Licensing Appeal Board for this operating license proceeding. As reconstituted, the Appeal Board for this operating license proceeding will consist of the following members:

Alan S. Rosenthal, Chairman  
Dr. W. Reed Johnson  
Gary J. Edles

Dated: December 20, 1984.

C. Jean Shoemaker,

*Secretary to the Appeal Board.*

[FR Doc. 84-33630 Filed 12-26-84; 8:45 am]

BILLING CODE 7500-01-02

[Docket No. 80-185 OLA]

### Consumers Power Co. (Big Rock Point Nuclear Plant); Reconstruction of Atomic Safety and Licensing Appeal Board; Spent Fuel Pool Expansion

Notice is hereby given that, in accordance with the authority conferred by 10 CFR 2.787(a), the Chairman of the Atomic Safety and Licensing Appeal Panel has reconstituted the Atomic Safety and Licensing Appeal Board for this spent fuel proceeding. As reconstituted, the Appeal Board for this proceeding will consist of the following members:

Thomas S. Moore, Chairman  
Dr. W. Reed Johnson  
Dr. Reginald L. Gotchy

Dated: December 18, 1984.

C. Jean Shoemaker,

*Secretary to the Appeal Board.*

[FR Doc. 84-33640 Filed 12-26-84; 8:45 am]

BILLING CODE 7500-01-02

[Docket No. 80-73]

### General Electric Co.; Finding of No Significant Environmental Impact Regarding Proposed Amendment to Facility Operating License No. R-33

The Nuclear Regulatory Commission (the Commission) is considering issuance of an Amendment to Facility Operating License No. R-33 for the General Electric-Nuclear Test Reactor (GENTR) located in Pleasanton, California.

The amendment will renew the Operating License until October 31, 1997, in accordance with the licensee's application dated June 13, 1979, as supplemented. Opportunity for hearing was afforded by the Notice of Proposed Renewal of Facility License published in the Federal Register on November 13, 1980 at 45 FR 75031. No request for a hearing or petition for leave to intervene was filed following notice of the proposed action.

Continued operation of the reactor will not require alteration of buildings or structures, will not lead to changes in effluents released from the facility to the environment, will not increase the probability or consequences of accidents, and will not involve any unresolved issues concerning alternative uses of available resources. Based on the foregoing and on the Environmental Assessment, dated November 9, 1984, the Commission concludes that renewal of the license will not result in any significant environmental impacts.

PROPOSED AGENDA - ACRS REACTOR RADIOLOGICAL EFFECTS AND  
SITE EVALUATION ON EMERGENCY PREPAREDNESS  
JANUARY 3-4, 1985  
WASHINGTON, D.C.

January 3, 1985

8:30 - 8:45 a.m.	Introduction	D. Moeller, Chairman
8:45 - 10:25 a.m.	Applying Non-Nuclear Experience to Nuclear Emergency Preparedness	J. Lucas, Director of Emergency Preparedness, St. Charles Parish, Hahnville, LA
10:15 - 10:30	BREAK	
10:30 - 11:15 a.m.	PRA Considerations in Emergency Preparedness for Low Frequency Natural Events	P. Davis, Inter-mountain Technologies, Idaho Falls, ID
11:15 - 12:00 NOON	Meteorological Considerations in Emergency Preparedness for Low-Frequency Natural Events	R. Abbey, Director of Meteorological Research ONR
12:00 - 1:00 p.m.	LUNCH	
1:00 - 2:00 p.m.	FEMA's Emergency Preparedness Program for Offsite Safety	R. Krimm, State and Local Programs, FEMA
2:00 - 3:00 p.m.	FEMA's Natural and Technical Hazards Program	R. Krimm, FEMA
3:00 - 3:15 p.m.	BREAK	
3:15 - 5:00 p.m.	Executive Session	
5:00 p.m.	ADJOURN	

January 4, 1985

8:30 - 8:45 a.m.	Introduction	D. Moeller, Chairman
8:45 - 10:15 a.m.	Proposed Amendments to 10CFR50, etc., Consideration of Earthquakes in the Context of Emergency Preparedness	M. Jamgochian, RES
10:15 - 10:30 a.m.	BREAK	
10:30 - 1:00 p.m.	Executive Session	
1:00 p.m.	ADJOURN	



WORKING COMMITTEE MEETING: REACTOR RADIOLOGICAL EFFECTS AND SITE EVALUATION  
LOCATION: Room 1046, 1717 H St. NW., Washington, D.C.  
January 3-4, 1985

ATTENDANCE LIST

PLEASE  
PRINT

NAME	AFFILIATION
D. MOELLER	ACRS
J. Ebersole	"
C. Wylie	"
M. CARTER	ACRS CONSULTANT
I. CATTON	" "
D. ORTH	" "
P. DAVIS	" "
R. KATHREN	" "
D. ALDRICH	" "
P. Pomeroy	ACRS STAFF
J. McKinley	" "
O. Merrill	" "
J. Schiffgens	ACRS Fellow
R. Cushman	ONR
R. Abbe	St. Charles Parish, LA
J. Lucas	ACRS Staff
R. Sario	NRC/OIE/DEPER
F. PAGANO	Capital Connection News / WOL
Warren Yeager	" " "
Jesse Schulman	DOE
P. J. DAVIS	Capital Connection News Series
D. Joyner	NRC/PRES/DRPES
R. KORNASIEWICZ	NRC/IE
S. SCHWARTZ	

ATTENDANCE LIST

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[illegible]

DATE: January 3-4, 1985

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(Sign-In Sheet)

NAME	BADGE NO.	AFFILIATION
JOHN M. LUCAS	E-0961	ST. CHARLES PARISH, LA.
DAVID L. HOFFMAN	E-0178	Au-Federal
T.J. DELGAZO	E-0235	WESTEC Services Inc.
C.J. CRANE	E-0110	WESTEC SERVICES, INC.
GARY J. OVERBECK	E-0147	WESTEC Services, Inc
P.R. Davis	E-0151	ACRS Consultant
D.A. ORTH	E-0242	ACRS Consultant
PAUL W. POMEROY	E-0214	ACRS Consultant.
Robert F. Abbey, Jr.	E-0221	ACRS Consultant ONR
M.W. CARTER	E-0231	ACRS
R.L. Kathryn	E-0237	ACRS
Wm. K. K...	E-0966	Capitol Conversion New;
Schulman	E-0964	" " "
RALPH Archibald	E-0194	NRC
Vern Wingert	E-0143	FEMA
Burhard Krumin	E-0901	FEMA
DAVID ALDRICH	E-0921	SAIC



ATTACHMENT D

DOCUMENTS AND PRESENTATION MATERIALS DISTRIBUTED TO THE  
ACRS SUBCOMMITTEE ON WASTE MANAGEMENT DURING THE  
JANUARY 3-4, 1985 MEETING

1. NRC Memorandum from F. P. Gillespie to R. F. Fraley, ACRS Review of Proposed Rule Change to 10 CFR Part 50, 50.47 and Appendix E: Consideration of Earthquakes on Emergency Preparedness, dated September 25, 1984.
2. NRC Final Draft (as submitted for publication in the Federal Register) of Proposed Rule Change, 10 CFR Part 50, 50.47 and Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities, dated December 18, 1984.
3. NRC Memorandum from W. J. Dircks to Chairman Palladino entitled, "Emergency Planning and Seismic Hazards," dated January 13, 1984.
4. NRC Memorandum from J. C. McKinley to D. W. Moeller entitled, "Dr. Carson Mark's Comments on the Proposed Amendment to 10 CFR 50.47 and Appendix E," with attachment, dated January 2, 1984 (error: should be 1985).
5. "The Disparity Between the Amount of Emergency Preparedness for Nuclear vs. Other Rare Catastrophic Events," W. R. Casey et al., Health Physics, Vol. 7, No. 4, pp. 521-523, October, 1984.
6. Emergency Preparedness, Consideration of Earthquakes and Other Low Probability Natural Phenomena, M.T. Jamgochian, NRC Office of Nuclear Regulatory Research, undated.
7. St. Charles Parish Implementing Procedures, Hahnville, LA, December 3, 1984.
8. St. Charles Parish Emergency Preparedness/Industrial Hot Line System, Operating Procedure Manual (Undated).
9. Detailed Report on the Evacuation of December 11, 1982, Prepared by Envirosphere Co. for Louisiana Power and Light Co., December, 1983.
10. National Earthquake Hazards Reduction Program: Overview, Report to the U.S. Congress, Geological Survey Circular 918, Undated but issued January, 1985.
11. Safety Information Booklet, "Plans to Help You During Emergencies," St. Charles Parish, et al. Undated (circa January, 1985).

12. An Overview of Seismic Risks and Evacuation Considerations from Nuclear Plants Based on PRA Studies, P. R. Davis, Intermountain Technologies, Idaho Falls, ID, January 3, 1984.
13. Overview of FEMA's Radiological Emergency Preparedness Program, Congressional Fact Sheet, January 3, 1985.