ACRS-2346

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DATE ISSUED: Sept. 20, 1985

SUMMARY/MINUTES OF THE
AUGUST 7, 1985 MEETING OF THE
ACRS SUBCOMMITTEE ON GESSAR II
WASHINGTON, D.C.

A meeting was held by the ACRS Subcommittee on GESSAR II on August 7, 1985 in Washington, D. C. The purpose of this meeting was to continue Subcommittee review of GESSAR II for a Final Design Approval applicable to future plants. Notice of this meeting was published in the Federal Register on Monday, July 22, 1985 (Attachment A). Attachment B is a copy of the meeting schedule. Attachment C is a list of meeting slides kept on file at the ACRS Office. Portions of the meeting that dealt with plant security and General Electric Company (GE) proprietary information were closed to public attendance. Richard Major was the cognizant staff member for this meeting. The meeting began at 8:30 a.m.

Participants:

ACRS

J. Ebersole, Acting Chairman
C. Wylie, Member
C. Mark, Member
H. Etherington, Member
R. Major, ACRS Staff

NRC Staff

D. Scaletti
C. Thomas
B. Hardin
R. Sammons
R. Frahm
M. Rubin
J. Chen
N. Chokshi

BNL

K. Shiu
W. Yu
R. Jung
T. Pratt

GE

D. Foreman
D. Hankins
G. Yeazell
H. Solorzano

Mr. Scaletti, NRC project manager for GESSAR II, asked the subcommittee to postpone the discussion on core melt frequency and containment performance guidelines for standard plants until the following day. He noted Mr. Bernero would address this topic during the full Committee GESSAR II session.

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Regarding open items, Mr. Scaletti noted all open items had been closed except relay chatter which is still under Staff consideration. Currently relay chatter might be prioritized and placed on the Staff's list of generic items. This item might become an interface item on the GESSAR case; it would be left for a utility applicant to resolve. But currently whether or not relay chatter is a problem and, if it is, how great a problem remains unresolved.

Mr. Scaletti explained that questions from BNL on the GESSAR II PRA passed through the appropriate NRC Staff review group and were then forwarded, along with other questions from that technical review group, to GE. Mr. Scaletti gave copies of the informal correspondence on these matters to Mr. Major at ACRS where they are kept in the ACRS office. (Much of this information is proprietary.)

Mr. Scaletti explained that section 1.10 of the SER addresses interface issues. Five new interface items have been identified. He noted that where necessary interface requirements necessary to "assure that the PRA comes true," have been specified. SER supplements 2 and 3 (Table 15.1) and in section 1 of GESSAR itself have tables listing interface requirements. Only those additional interface items thought to be necessary by the Staff are listed in the SER supplements.

H. Solozano, GE, discussed foundation-sliding stability on GESSAR II and highlighted the piping design basis. The FSAR shows the auxiliary building to have the lowest factor of safety against sliding. Conservative static calculations were used to envelop site conditions. It is felt that more realistic dynamic analysis would show greater margins. A site unique analysis against sliding by an applicant must demonstrate compliance with Staff acceptance criteria. Piping design is in compliance with ASME Sec. III requirements. A linear elastic analysis is used, and a dynamic analysis is performed for the OBE and results doubled for the SSE. GE concluded piping does not generally

fail. The maximum expected displacement is three inches neglecting embedment effects. Calculations for six inches indicate no piping distress.

N. Chokshi of the NRC Staff noted both the auxiliary building and the control building must be analyzed by an applicant in a site specific situation to ensure Staff acceptance criteria are met.

D. Hankins, GE, discussed a variety of issues related to hydrogen generation in a severe accident. Hydrogen generation rates vary from 0.4 to 1.6 lbm/sec. There is enough oxygen to support the combustion of 2480 lbm hydrogen (67 percent of the active clad metal water reaction). General Electric still feels there is an insignificant risk reduction for additional hydrogen control. The SER shows no risk reduction for hydrogen control for internal events and a factor of 2 for seismic risk, based on drywell failure by local detonations, although GE disagrees with this analysis.

GE has committed to provide a hydrogen control system consistent with the outcome of the Hydrogen Control Owners Group program and NRC review. NRC will require diverse power supply for ignitors. The UPPS has also been committed to by GE.

GE believes that there would be no drywell seal degradation leading to pool bypass caused by standing hydrogen flames. Thick concrete plugs protect drywell seals from standing flames in the wetwell.

CLOSED SESSION

Dr. Trevor Pratt, NRC Staff Consultant from Brookhaven, made a detailed discussion of hydrogen in closed session (closed due to the proprietary material used in his presentation). He noted that, according to the BNL

review of the PRA, hydrogen control will reduce the risk from seismically induced core melts by about half. The risk reduction from internal events is much less. The reason for this difference is not apparent and will be studied further by BNL.

It was noted that the NRC Staff position on acceptable hydrogen release histories is defined in a letter from Bernero to Hobbs dated June 24, 1985. The HCOG (hydrogen control owners group) test program will attempt to confirm the adequacy of deliberate ignition, but will not test for optimum ignition sources.

In discussing the effects of a standing welwell hydrogen flame, Dr. Pratt explained that containment seal temperatures are significantly elevated but remain below failure. It was noted that late in a severe accident scenario during core/concrete interactions high drywell temperatures may cause seals to exceed failure limits. The meeting returned to open session.

Dr. Hankins of GE discussed ablation of the reactor pressure vessel pedestal. She explained the pedestal is a steel-concrete composite structure. There are two concentric steel shells, connected with steel shear ties and concrete filled between the shells. GE evaluated the support capability at 10 hours following core melt after ablation of 1.4M of concrete and assumed only the outer steel shell remained at a temperature of 1100°F. It was concluded that there would be no loss of the pedestal, drywell or containment structural integrity.

Dr. Pratt of BNL discussed the GESSAR II PRA review of the effect of a core melt on vessel support integrity. He discussed the impact on risk from the loss of the vessel support. He explained how late containment failure sequences would become intermediate failures as an upper bound if support failure occurred very soon after vessel failure. He noted the effect was slight (from 131 to 139 person-rems per unit per year).

Early loss of containment integrity plus loss of drywell has more effect, but is less than a factor of two. Again he stressed these were upper bound numbers.

GE and the Staff discussed residual problems from fission products collected in the suppression pool in the long term (30 hours after the event). It was noted at 30 hours, 120 gpm of make-up water would be needed to balance the decay heat being generated. By this time the core/concrete reaction would be minimal and fission product scrubbing in the pool would have likewise slowed. Given a suppression pool with thermally saturated water, the amount of captured iodine that escapes from the pool is much less than the original amount of iodine that passed through the pool, but was not scrubbed.

Mr. Rubin of the Staff discussed the consideration of potential design improvements for GESSAR II. The consideration of design changes was a result of the severe accident policy statement. Areas that were placed in focus were those areas of plant vulnerability suggested by the PRA, supplemented by reasonable engineering approaches. From Staff considerations a list of 85 potential improvements were sent to GE for detailed cost-benefit analysis. GE was also encouraged to propose their own modifications. Candidates were worked into the BNL PRA analysis to test their effect on plant performance during an accident. Combinations of various devices were also studied to determine the effect combinations of improvements would have on one another.

It was explained that the UPPS has not been designed in detail at this point. It is not possible to trade-off details of the design with other modification until the design of UPPS becomes more formal. However, it was noted that one goal was to keep the UPPS design simple. The largest risk reduction for any design modification when considering internal events was achieved by using the UPPS. Other modifications only reduced the remaining risk slightly when considering internal events. When

external events are considered the nonseismic UPPS contributes only a small benefit; with an UPPS system designed somewhat below a Category 1 system but reasonably improved a 15-20 percent reduction in core melt frequency would be realized.

Mr. Brad Hardin, NRC Staff, discussed consideration of potential design improvements for the GESSAR II severe accident design. Mr. Ebersole expressed concern that cost/benefit considerations do not consider capital investment lost, generation lost, and other considerations beyond $1000/person-rem. The results of RDA studies for the GESSAR II, Mark III containment mitigation were presented. Three high-pressure containments (Mark III) and one low-pressure containment with a chilled filter were studied. This work, which is about one and one-half years old, did not include UPPS. Table 15.5 from the SSER #4 ranks the top 25 potential design improvements according to their cost/benefit ratios. The Staff noted that defense-in-depth justified some improvements even if cost/benefit did not.

Dr. Hankins, GE, noted that the UPPS system would be seismically upgraded. The system would not be a full seismic Category 1, but would contain selected upgrades to protect the UPPS injection capability. GE felt the upgrade would double the system cost and provide only a small risk reduction. GE noted again that they would include a hydrogen ignition system consistent with the HCOG resolution of hydrogen control. A dedicated power supply will be included. GE will also assure that the station batteries supplying control room instrumentation remain operational for ten hours. To achieve the ten-hour station batteries, an interface item specifying DC-load shedding will be required. AC cross-tie capability was considered, but it was dropped because of the potential for adverse impact on AC reliability.

Dr. Pratt, BNL Staff Consultant, discussed the GESSAR II PRA review of the source term. Two treatments of the source term were followed. A

sensitivity study based on MARCH/CORSOR/CORRAL/SPARC was used and mechanistic methods were based on ASTPO-developed codes.

CLOSED PROPRIETARY SESSION

Dr. Hankins, GE, discussed the source term used in the PRA. One area of uncertainty was the degree of in-vessel plateout of fission products. (GE took no credit for in-vessel rentation). Minimum pool decontamination factors were 100-1000; the major uncertainty was particle size. GE also assumed tellurium was 60% released ex-vessel, as opposed to the PRA assumption of 100% released in-vessel. Upper bound releases were used for design modification evaluations. The risk increase between lower and upper bounds was less than a factor of five.

GE believes that the gas generation rates assumed in core/concrete interactions could affect decontamination factors (DF) as much as ten percent. The DF could decrease one order of magnitude for reasonable variations in the mass mean and standard deviation of particle size distribution. There was generally an order of magnitude increase for the no bypass case and small-to-no impact on pool bypass cases. GE feels that particle sizes used in small scale scrubbing tests are realistic in relation to particles expected from an actual damaged core.

CLOSED SESSION - PLANT SECURITY

Mr. Yeazell, GE, discussed a special emergency heat removal system (SEHR) which GE has designed and installed on a foreign plant. This system was designed to meet the requirements of the country in which the plant is located. This includes ten hours unattended operation, all active components are in a bunker, and once actuated the SEHF is presumed to be inaccessible to third parties. The system provides low

pressure core and containment cooling. It was noted the cost of this system was very high.

The meeting was adjourned at 5:25 p.m.

NOTE: A transcript of the open portions of the meeting is on file at the NRC Public Document Room at 1717 H St., N.W., Washington, DC or can be obtained at cost from Ann Riley & Associates, Court Reporters, 1625 I Street, N.W., Suite 921, Washington, DC 20006 [(202) 293-3950].

individuals or organizations may continue to purchase NRC documents at current rates from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

Dated at Bethesda, Maryland, this 15th day of July, 1985.

For the Nuclear Regulatory Commission.

B.J. Youngblood,

Chief, Licensing Branch No. 1, Division of Licensing.

[FR Doc. 85-17366 Filed 7-19-85; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-302]

Florida Power Corp. et al., (Crystal River Unit No. 3 Nuclear Generating Plant); Exemption

I

The Florida Power Corporation (the licensee) and eleven other co-owners are the holders of Facility Operating License No. DPR-72 which authorizes operation of Crystal River Unit No. 3 Nuclear Generating Plant (CR-3) at steady state reactor power levels not in excess of 2544 megawatts thermal. The facility comprises one pressurized water reactor at the licensee's site located in Citrus County, Florida. The license provides, among other things, that it is subject to all rules, regulations and Orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

II

10 CFR Part 50, Appendix R, Section III, identifies specific fire protection required to be provided by a licensee authorized to operate a nuclear power reactor. 10 CFR 50.48(c) identifies the schedules for the completion of fire protection modifications for which a plant shutdown is required. By letter dated October 5, 1984, as superseded March 1, 1985, the licensee requested that the current deadline of Refuel V (July 1985) be extended to the first quarter of 1986 (March 31, 1986) for the fire protection modifications identified below.

The time extension is needed to implement the following modifications:

1. Installations of the dedicated heating, ventilating and air conditioning (HVAC) system for safe shutdown areas of the Control Complex;

2. Installation of the 3-hour rated fire barrier for the ceilings in the new Emergency Feedwater Initiation and Control (EFIC) Room located on elevation 124 feet of the Control Complex; and

3. Installation of fire barriers for protection of safety-related cable trays and conduits in the Auxiliary Building, Intermediate Building and Control Complex.

III

The licensee has indicated that the proposed exemption is needed because of the extremely ambitious scope of the presently planned 20-week outage and the difficulty of completing all the required modifications within the scheduled shutdown period. As a measure of the scope of the modifications being performed during this outage, the total cost of the outage will be approximately $110 million, covering 1.8 million manhours, and occupying 1800 craft and supervisory personnel associated with modifications. Major modifications include those required for Emergency Feedwater Initiation and Control, Reactor Coolant Inventory Tracking System, Evironmental Qualification, and Appendix R including Remote Shutdown Capability. The requested exemption addresses areas where there are significant conflicts between the Appendix R work scope other and work scopes, making concurrent accomplishment during this outage impractical. The licensee concludes that modifications covered by the requested exemption can be completed within the requested time extension without adversely affecting public health and safety, based on (1) compensatory measures proposed, (2) completion of the major Appendix R modifications during this shutdown, and (3) ability of the onsite fire brigade to respond rapidly to any fires in the affected areas.

As compensation pending the completion of the modifications indentified above, the licensee will implement a roving fire watch patrol in all areas for which schedular relief has been requested. The fire watch will continue until all fire protection related work associated with Appendix R has been completed. The routing of the fire watch will be established to ensure that the patrol observes each area in which a fire could damage redundant shutdown related systems. It will return to these areas at a frequency of about once every twenty minutes.

If a fire should occur within any area provided with a fire watch, there is reasonable assurance that it will be detected in its incipient stages, before significant flame propgation or temperature rise occur. Upon discovery of a fire, the Control Room will be immediately notified and fire brigade response initiated. Pending arrival of the brigade, the fire watch, having been trained in the proper use of portable fire extinguishers, will be capable of suppressing the fire before significant damage occurs. We therefore have reasonable assurance that, pending completion of the licensee's Appendix R related modifications, the advent of fire in any of these areas will not result in damage to shutdown systems to the extent that safe plant shutdown could not be achieved and maintained.

Based on the considerations discussed above, the Commission concludes that the licensee has provided reasonable and acceptable interim post-fire safe shutdown capability or interim fire protection measures to support the exemption request.

IV

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), an exemption as requested by the licensee's letter of October 5, 1984, as superseded by letter dated March 1, 1985, is authorized by law and will not endanger life or property or the common defense and security and is othewise in the public interest. The Commission hereby grants an exemption from the requirements of 10 CFR 50.48(c) to extend the deadline for completion of the above identified fire protection modifications at Crystal River Unit 3 Nuclear Generating Plant until March 31, 1986.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of the exemption will have no significant impact on the environment (50 FR 28858).

This Exemption is effective upon issuance.

Dated at Bethesda, Maryland this 16th day of July, 1985.

Darrell G. Eisenhut,

Acting Director, Office of Nuclear Reactor Regulation.

[FR Doc. 85-17367 Filed 7-19-85; 8:45 am]

BILLING CODE 7590-01-M

Advisory Committee on Reactor Safeguards; Subcommittee on Gessar II; Meeting

The ACRS Subcommittee on GESSAR II will hold a meeting on August 7, 1985, Room 1167, 1717 H Street, NW., Washington, DC.

To the extent practical the meeting will be open to public attendance. However, portions of the meeting will be closed to discuss proprietary information relating to the GESSAR probabilistic risk assessment and plant security.

The agenda for subject meeting shall be as follows:

Wednesday, August 7, 1985—8:30 a.m. until the conclusion of business

The Subcommittee will continue its review of GESSAR II for a Final Design Approval applicable to future plants.

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 is practicable so that appropriate arrangements can be made.

During the initial portion of the meeting, the Subcommittee, along with any of its consultants who may be present, may exchange preliminary views regarding matters to be considered during the balance of the meeting.

The Subcommittee will then hear presentations by and hold discussions with representatives of the NRC Staff, its consultants, and other interested persons regarding this review.

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 therefor can be obtained by a prepaid telephone call to the cognizant ACRS staff member, Mr. Richard Major (telephone 202/634-1414) between 8:15 a.m. and 5:00 p.m. 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: July 16, 1985

Morton W. Libarkin,

Assistant Executive Director for Project Review.

[FR Doc. 85-17374 Filed 7-19-85; 8:45 am]

BILLING CODE 7590-01-M

Advisory Committee on Reactor Safeguards; Subcommittee Reactor Radiological Effects; Meeting

The ACRS Subcommittee on Reactor Radiological Effects will hold a meeting on July 31, 1985, in Room 1167, at 1717 H Street, NW., Washington, DC.

The meeting will, for the most part, be open to public attendance. However, portions of the meeting will be closed for the discussion of Institute of Nuclear Power Operations (INPO) proprietary information.

The agenda for the subject meeting shall be as follows:

Wednesday, July 31, 1985—8:30 a.m. until the conclusion of business

The Subcommittee will review the INPO Radiation Protection Program, particularly as it relates to a similar and related NRC program.

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 is practicable so that appropriate arrangements can be made.

During the initial portion of the meeting, the Subcommittee, along with any of its consultants who may be present, may exchange preliminary views regarding matters to be considered during the balance of the meeting.

The Subcommittee and its consultants will then hear presentations by and hold discussions with representatives of INPO, the NRC Staff, and other interested persons regarding this review.

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 therefor can be obtained by a prepaid telephone call to the cognizant ACRS staff member, Mr. Owen Merrill (telephone 202/634-1414) between 8:15 a.m. and 5:00 p.m. 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: July 17, 1985

Morton W. Libarkin,

Assistant Executive Director for Project Review.

[FR Doc. 85-17375 Filed 7-19-85; 8:45 am]

BILLING CODE 7590-01-M

Advisory Committee on Reactor Safeguards; Subcommittee on Waste Management and Procedures and Administration; Meeting

The ACRS Subcommittee on Waste Management, and Procedures and Administration will hold a joint meeting on July 30, 1985, Room 1046, 1717 H Street, NW., Washington, DC.

The meeting will, for the most part, be open to public attendance. However, portions of the meeting may be closed for the discussion of individuals as potential consultants to the Waste Management Subcommittee.

The agenda for the subject meeting shall be as follows:

Tuesday, July 30, 1985—8:30 a.m. until the conclusion of business

The Subcommittees will review the ACRS Role in the Civilian High-Level Radioactive Waste Management Program.

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 is practicable so that appropriate arrangements can be made.

During the initial portion of the meeting, the Subcommittees 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 representatives of the NRC Staff and other interested persons regarding this review.

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 therefor can be obtained by a prepaid telephone call to the cognizant ACRS staff member, Mr. Owen S. Merrill (telephone 202/634-1414) between 8:15 a.m. and 5:00 p.m. 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.

B

PRELIMINARY/TENTATIVE AGENDA
ACRS SUBCOMMITTEE ON GESSAR II
AUGUST 7, 1985
Room 1046, 1717 H Street, N.W., Washington, D. C.

8:30 a.m. 1. Chairman's Introduction (5 min.)
a) Goals
b) Schedule
c) Status of ACRS review

8:35 a.m. 2. Discussion by NRC Staff: Is there some core melt frequency or release of radioactivity, or containment performance criterion used as a guideline for a review of a new Standard Plant? What are the Staff's goals? * (15 min.)

8:50 a.m. 3. Staff Introduction to SSER #4 (45 min.)
a) Summary of Outstanding Issue
- Staff presentation of the list of questions that were a result of the BNL review, how were they resolved? How much risk from relay chatter will be acceptable?

b) Confirmatory Issues

c) Interface Information
- to include detailed quantitative requirements for interfaces that arose from the PRA, list of specific items, from where did they arise, what is the specific requirement?

9:35 a.m. 4. Selected Topics from SSER #4 and Other Outstanding ACRS Review Items

A. Design of Seismic Category I Structures (45 min.)
a) Foundations-sliding stability on a site specific basis
b) How will this interface item be specified?
c) Seismic design basis for piping
- elastic?
- plastic?
- calculational technique
- allowance for past history of piping

10:20 a.m. ********** BREAK ********** (10 min.)

10:30 a.m. B. Detailed Discussion of Hydrogen (GE/Staff) * (1 hr.)

- Current requirements on rate of hydrogen production assumed and the amount of hydrogen produced. Why appropriate? (Staff)
- Staff observation on potential for a hydrogen detonation causing unacceptable damage
- Optimum ignition sources (glow plug, calrod heater, spark plug, catalyst, combination, etc.)
- Power Sources: GE position on type of power source to be used
- Limitations of ignition sources - when does (what fraction) of core melt overwhelm effectiveness
- Status to date of HCOG considerations
- Discussion of Effect of Standing Wetwell hydrogen flame on seals

11:30 a.m. C. Effect of a Core Melt on Vessel Support Integrity * (1 hr.)
- Ablation of support (GE/Staff)
- Significance of loss of containment integrity following support failure
- Effect of Containment Venting

12:30 ********** LUNCH **********

1:30 p.m. D. Residual Problems from Fission Products Collected in the Suppression Pool? (GE/Staff) (15 min.)
What are long-term requirements (after a possible loss of containment integrity)
What is the effect of drywell heating?
Pool boiling?

1:45 p.m. E. Consideration of Potential Design Improvements (Staff/GE) (1 hr. 15 min.)
- UPPS
- Hydrogen Control
- Battery Capability
- AC Cross-Over Capability
- Conclusions from RDA Studies
- List and discussion of the next approximately half dozen items that did not become improvements, why? (Staff)

3:00 p.m ********** BREAK ********** (10 min.)

3:10 p.m. F. Source-Term Discussion (30 Min.)
- largest uncertainties
- effects of pool scrubbing
- sensitivity of pool scrubbing to temperature of pool
- sensitivity of pool scrubbing to particle size/particle size distribution considered

3:40 p.m. 5. Security Considerations (Staff/GE) * (1 hr.15)
(CLOSED SESSION)

Discussion of the practicability and an estimate of costs for the following:

- a bunkered independent shutdown heat removal system
  -- with what degree of modification could UPPS become such a system?

- geographic separation for the ultimate heat sink and its associated components and systems

- special protective measures and/or special access control for vital scram and system trip systems

- appropriate access control to the site periphery, perhaps by earthwork barriers, and the hardening of buildings housing vital equipment in accordance with the distance to such barriers

- Is the control room or other important plant areas vulnerable?

- limitations on accessibility for landing by helicopter on roofs of buildings housing vital equipment.

6. Others

4:55 p.m. 7. Closing Remarks - Adjournment (5 min.)

5:00 p.m. ADJOURN

* Those items that will be presented to the full Committee on August 8, 1985. Time allotted is 3 hours in total.

ATTACHMENT C
GESSAR II - MEETING SLIDES
AUGUST 7, 1985
WASHINGTON, DC

1. Slides, H. Solorzano, GE, GESSAR II Sliding stability, 7 slides

2. Slides, D. Hawkins, GE, Hydrogen Issues/Vessel Support Ablation, 3 slides

3. Slides, T. Pratt, BNL-Staff Consultant, GESSAR II PRA Review, Effect of a Core Melt on Vessel Support Integrity, 10 slides

4. Slides, N. Chokshi, NRC Staff, Sliding Stability, 6 slides

5. Slides, T. Pratt, BNL, NRC Staff Consultant, GESSAR II PRA Review, Detailed Discussion of Hydrogen, 42 slides (contain GE Proprietary Information)

6. Slides, M. Rubin, NRC Staff, Design and Design Modifications Evaluated, 9 slides

7. Slides, B. Hardin, NRC Staff, Consideration of Potential Design Improvements for GESSAR II Severe Accident Design, 5 slides

8. Slides, D. Hawkins, GE, Ultimate Plant Protection System, 6 slides

9. Slides, D. Hawkins, GE, Source Term Sensitivity Study, Upper Bound Source Terms, 5 slides (contains GE Proprietary Information)

10. Slides, T. Pratt, BNL, NRC Staff Consultant, GESSAR II PRA Review, Source Term Discussion, 29 slides (contain GE Proprietary Information)

11. Slides, G. Yeazell, GE, GESSAR II Sabotage Considerations, 7 slides (GE Proprietary Information, Safeguards Information)