CERTIFIED

11/7/79

ISSUE DATE: 11/07/79

MINUTES OF THE ACRS AD HOC SUBCOMMITTEE MEETING
ON
THREE MILE ISLAND 2 ACCIDENT IMPLICATIONS
SEPTEMBER 5, 1979

The TMI-2 Accident Implications Ad Hoc Subcommittee met on September 5, 1979, at 1717 H St., NW, Washington, DC. The main purpose of the meeting was to discuss with the NRC Staff regarding their recommendations as a result of the TMI-2 accident, and with representatives of Babcock and Wilcox about actions they have taken and propose to take.

Notice of the meeting was published in the Federal Register on August 21, 1979. Copies of the notice, meeting attendees, and schedule are included as Attachments 1, 2, and 3, respectively. A complete set of handouts and viewgraphs is kept in the ACRS Office, while selected handouts are attached. The Designated Federal Employee for the meeting was R. K. Major. No written statements or requests for time to make oral comments were received from members of the public.

EXECUTIVE SESSION

Dr. Okrent, Subcommittee Chairman, convened the meeting at 8:30 a.m., introduced the ACRS members and consultants who were present and indicated that R. Major was the Designated Federal Employee.

NRC STAFF PRESENTATION - (8:35 a.m. - 12:30 p.m.)

D. Crutchfield, Systematic Evaluation Program Branch

Mr. Crutchfield discussed the NRC Systematic Evaluation Program (SEP). This program consists of three phases: development of topic list (done), detailed review of a limited number of plants, and consideration of review of all the operating facilities. Old plants generally do not meet current criteria and the SEP attempts to determine to what extent they do not meet the criteria. Information used in the SEP review is acquired from plant documents, site visits, and directly from the licensees. Not all areas are being reviewed, for example, fire protection and safeguards are not included in the SEP.

DIA EXEMPTION 5

The scheduled completion of review of these selected plants is 1982.

Dr. Okrent was concerned about the long time it will take to perform the review and identify possible safety concerns. Mr. Crutchfield said that so far, no immediate safety concern has been identified and that the completion date is dictated by limited manpower resources.

Dr. Okrent asked if it is proper for the NRC Staff to do the licensee's job; the licensees should have the responsibility of assessing the adequacy of the safety of their plants, and the Staff should review such assessments. He asked Mr. Crutchfield to discuss the SEP with the full ACRS in the next monthly meeting.

R. Tedesco, Lessons Learned Task Force

Mr. Tedesco briefed the Subcommittee on the long-term recommendations that his Task Force would make. Because of the emphasis placed on the short-term recommendations, the long-term ones are not yet well-developed. Based on the improvement of safety afforded by the short-term recommendations (which have been reviewed by the ACRS), the Staff has decided to resume licensing reviews. (This decision is described in a letter from H. Denton to the Commission, dated August 20, 1979. A copy of this letter was given to the Subcommitttee and is being kept in the ACRS Office.) However, as a result of discussions at the Kemeny Commission on August 23, 1979, the Staff decision may be changed by the NRC Commissioners.

Dr. Okrent was concerned that the Staff does not plan to do studies on safety improvements, beyond what is currently being done, for future reactors. Mr. Tedesco said that the lack of such actions is purely a question of limited resources, and the Staff's long-term recommendations may indeed result in design improvements. Mr. Levine, Director of Research, added that the Staff did look at a large number of suggestions on how to improve safety, and these suggestions could result in further research or design changes.

W. Minners

In the Staff's long-term recommendations, four major areas will be considered: design-basis accidents, system design requirements, the licensing process, and the licensee role with regard to operations. Mr. Minners discussed design-basis accidents.

The NRC defense-in-depth concept is tabulated (Attachment 4), but numbers used in the table are for illustration only. The table shows that the Staff breaks events up into classes, these are: "normal operation", "transient", "mitigated accidents", "partially mitigated accidents", and "unmitigated accidents". These events are in order of increasing radiological consequences and decreasing frequency per year. Despite the fact he could tabulate these events, Mr. Minners thought that some of these events have not been systematically thought out by the Staff. For example, the safe shutdown earthquake does not have an associated dose criterion nor a frequency criterion. Currently, the Staff does not regulate on "safety goals" but on "systems acceptance criteria". This is illustrated by events defined as "transients", where reactor pressure cannot go above 110% of code design pressure; the pressure limit is the "acceptance criterion".

The TMI-2 incident can be classified as "benign catastrophe", having serious onsite but low offsite consequences, fitting between "transients" and "mitigated accidents". The Staff should pay more attention to this type of event.

Mr. Minners proposed that the defense-in-depth philosophy be explicitly included in the NRC regulations. Then NRC should define the echelons of protection for each type of events listed in Attachment 4, adding containment, siting, and emergency planning as additional echelons. With these echelons clearly defined, NRC can proceed to prescribe safety goals for each of these echelons. For example, instead of allowing applicants to use ESFs to reduce the size of the exclusion areas, the siting safety goal would prescribe a minimum distance between the plant and the site boundary. The original intent of Part 100, according to Mr. Minners,

was to ensure some distance between the reactor and nearby population so that if all fails, there is still the physical separation which cannot fail. A task force under the leadership of D. Muller is considering new siting criteria.

The defense-in-depth policy is not clearly articulated in the Commission's regulations and policies. Dr. Okrent pointed out that the "maximum credible accident (MCA)" approach to safety may have been useful but the Staff seems to regard it as the approach and not as part of a broader approach. The MCA approach tends to hide some of the significant features of the accident and makes it difficult for people to recognize when real accidents are happening.

The Subcommittee observed that there is a continuing reluctance of the Staff to think if they can mitigate accidents that go beyond degraded conditions.

At this point, Mr. Milsted of the Staff gave a short presentation on H_2 generation inside containment. The assumed event is a partially mitigated LOCA (due to degraded ECCS). The Staff's parametric calculations assumed 100% Zr/H_2O reaction in the minimum possible time, and radioactivity level given in TID-14844 ("core-melt" source term). This calculation shows that for all containment types, the H_2 level will reach 4%, the lower flammability limit, when less than 40% reaction has occurred. In the BWR Mark I and II containments, the 4% level is reached when only 2% of the reaction has occurred.

The Staff recognized that these calculations are preliminary and conservative, but admitted H_2 generation is a problem. Mr. Tedesco would recommend that an ad hoc group be formed to deal with this question. Possible solutions are: inerting containment during operation, inerting post-accident containment, or design containment to tolerate H_2 burn. The Subcommittee pointed out that the Staff has not made much progress so far in this area.

Charles Long

Mr. Long discussed systems design requirements, the second area in the long-term recommendations.

In this area, a number of recommendations may be made. Two were covered in the meeting while two others are described in the handout. The two recommendations discussed are:

(1) Safety System Unavailability

- Use of fault tree analysis methods to selected systems. Eventually, the Staff would have some quantitative criteria against which systems reliability will be judged.
- Combine fault tree methods with the single failure criterion to determine system unavailability. This is considered to be an improvement over the current deterministic licensing criteria.
- Factor into the fault tree analyses operator action, inaction and error. The Staff has frequently noticed that plant procedures do not necessarily match up with the Staff-reviewed safety analysis. The licensee would be responsible for matching up his procedures with the safety review, while the Staff would audit the licensee's efforts in this regard.
- The single failure criterion will continue to be used, though the Staff agrees that it is not necessarily sufficient. Event at TMI-2, the Staff considered the criterion adequate, assuming operator errors are not considered "failures".

(2) Classification of Systems Important to Safety

- The Staff would use relative reliability analysis methods to determine the importance of systems to each other.
- Use these methods to develop a classification of systems that are important to safe plant operation, but may not be required to meet all "safety grade" criteria.
- Evaluate advisability of upgrading additional fluid systems such as the electromatic release system and the letdown system.
- Require failure mode and effects analyses be conducted on "non-safety" system to identify potential interactions with "safety" systems.

- Incorporate the review of emergency procedures with relation to systems into the licensing review.
- Include environmental qualification of systems and components important to safety in the licensing process.
- Develop a separate SAR section to evaluate "safety" and "non-safety" systems.

EPRI PRESENTATION (12:30 p.m. - 2:20 p.m.)

Dr. E. Zebroski

Dr. Zebroski heads the Nuclear Safety Analysis Center (NSAC) within EPRI. The EPRI has two main kinds of activities: safety analysis, and plant and equipment reliability. Due to the industry's continued efforts in improving reliability, the average capacity factor of nuclear plants has increased by almost 12% and continues increasing. The key to such improvement is the analysis of precursor events, and there is much economic incentive to improvement. When enough events have been analyzed, one gains the foresight that some specific equipment may fail. Based on the foresight, a utility may take remedial measures of either prevention or mitigation, or even fundamental redesign without having to wait for the event to occur. The TMI-2 event has illustrated clearly the merits of prevention.

NSAC collects data and information on "significant events", which include LERs, any outage report and anything that involves actual or potential equipment damage or radiation release. Although NSAC's emphasis is on reliability and not safety, Dr. Zebroski believes a serious event which could cause major outage always has safety overtones. NSAC uses the collected information to develop event trends, frequency-intensity plots, and frequency-time plots. Any concerns raised by NSAC is telephoned to a designated contact at each utility. In addition, NSAC briefs utilities daily on an electronic newspaper system called "Notepad". The Subcommittee asked if NSAC would notify NRC of any concern. Dr. Zebroski answered that the affected utility has the responsibility of communicating with the NRC; the NSAC follow-up letter to the utility renders the concern formal, and the letter is in the public record. The early phone call provides time for the utility to take remedial actions immediately before any publicity takes place. Dr. Okrent asked if

EPRI has notified utilities of anything which the utilities informed the NRC of. Dr. Zebroski could not recall specific examples, but pointed out that the EPRI is concerned only with generic matters. The EPRI, being a research organization, does not have the depth of knowledge of local events and "get in the line of fire between the licensee and the licensing agency." He further said that a concern may emerge as somebody's idea, and the idea may take some time to fully develop as a concern, at which time utilities will be advised. When the idea is evolving and being reviewed, the utilities are not informed of it.

The NSAC is not obliged to protect anybody if it finds a legitimate concern which needs to be communicated. Furthermore, if a factual issue gets into an adversary climate before the facts are assembled, there will be inhibition to the free flow of information.

DISCUSSION WITH BABCOCK & WILCOX

Mr. MacMillan

Mr. MacMillan discussed actions taken and actions that should have been taken by B&W after the TMI-2 incident.

After the Davis-Besse depressurization event, an event similar to that at TMI-2, B&W evaluated the major components of the plant and found out there was no damage. Such finding was documented in a transmittal from 3&W to Toledo Edison. B&W then examined "cross contract applicability" and determined that since Davis-Besse alone uses the Crosby valves while all other plants use Dresser valves, other plants would not be subject to the same kind of problem. The Crosby and Dresser valves stuck open due to different mechanisms. Mr. MacMillan said in hindsight, B&W would like to have looked at the broader implications of the Davis-Besse transient and resolve such issues in a timely fashion. Mr. Michelson pointed out that had the Davis-Besse transient occurred with an older core, the larger decay heat output would have rendered much graver consequences.

The President's Commission on TMI-2 came to B&W and discovered the Dunn memo, which led to a number of others which dealt with pressurizer water level. Dr. Okrent asked if B&W has a mechanism by which internal memos containing possible safety concerns are reviewed. Mr. MacMillan answered that the organization unit to whom the authors belong should review all such memos to determine if the issues raised are real concerns. Dr. Okrent pointed out that other industries have allegedly suppressed information on dangerous chemicals; Mr. MacMillan said he resented being compared to such chemical firms, and that there is no effort or pressure inside B&W to suppress safety concerns. He admitted that some concerns may not have been expeditiously addressed and resolved.

The Michelson report on small breaks was sent by TVA to B&W in April, 1978. It was reviewed later in that year and analyses were done, but no document was published on such.

In the past, B&W has focused on the consequences of off-normal conditions, but in the future, it will emphasize prevention of such transients. A Transient Follow Program has been started. Its purpose is to gather data on and evaluate unusual transients. In addition, there will be periodic management review of safety issues.

DISCUSSION WITH NRC STAFF

The Subcommittee questioned what is the most effective way to call the Staff's attention to issues. The Staff recommended more formal communcation in the form of a letter from the full ACRS to an appropriate organization head. Many questions are raised in subcommittee meetings and full ACRS meetings, and the only way for the Staff to recognize concerns the ACRS wants to pursue is through formal letters.

The Ebersole question on Pebble Springs was regarded by the Staff as one not communicated formally; the Staff has assigned higher priorities to other matters.

DISCUSSION WITH TENNESSEE VALLEY AUTHORITY

Mr. D. Patterson

TVA has formed a new nuclear safety staff, independent of its design, construction and operating organizations, to evaluate issues such as the small break LOCA. In the past, TVA has proposed and insisted on design changes for safety reasons, and have been successful. For example, TVA's auxiliary feedwater systems are all safety-grade and automatically initiated. Another examples is all TVA pressurizer heaters are supplied with emergency power. These examples indicated TVA's successful working relationship with nuclear vendors.

When asked if TVA would notify the NRC if technically significant questions have been presented to a vendor, Mr. Patterson said that it is difficult to decide if an issue has safety concern and should be called to NRC's attention.

In conclusion, he suggested that reliability analysis, probability analysis, and fault tree analysis are valuable tools in identifying real safety issues, and that experienced systems engineers should be assigned to evaluate operation data in order to make sense out of it.

DISCUSSION WITH NRC STAFF

R. Martin

Mr. Martin headed the operational aspect of the I&E investigation team. The basic charter of the team was rather narrow -- to evaluate the actions of the licensee against his regulatory requirements. In this sense, it was just a standared I&E investigation of an incident and the time covered started from the moment of feedwater trip to when one RC pump was restarted (~16 hours post-accident).

Team findings are provided in NUREG-0600. Prior to the accident, all things were normal except for one limited condition of operation (LCO) in effect, and reactor system leakage exceeding Technical Specification requirements. The Staff training and retraining were in accordance with commitments made in the FSAR and Technical Specifications.

During the course of the accident, the two most significant actions were the throttling of the HP injection flow and the failure to isolate the stuck open EMOV. There was little offsite technical support, and later offsite support (including RC) had very little real impact on the corrective actions.

A. Gibson

Mr. Gibson was the leader of the radiological investigative team of the accident. His team had reviewed the licensee's training in the emergency plan and found that in general it was adequate. They did find that less than 50% of the portable radiation monitoring units were operational, and some other equipment deficiencies.

The team found that the operators did not initially realize they were in an emergency, and before the radiation alarms went off, they were not in an emergency mode of thinking. The operators did pull out the right procedure but did not pursue it far enough; if they had, the incident would not have occurred the way it did. Mr. Michelson stated that plants should have procedures that give the proper symptoms for all situations. One cannot blame an operator if he does not have the needed procedures. Mr. Jordan of NRC commented that it is not possible, nor has the Staff required, for licensees to develop procedures for every set of circumstances he might encounter.

Mr. Z. Rosztoczy

Bulletins 75-05C and 79-06C were issued recently to all three PWR vendors. These bulletins were written as the result of about three months' worth of Staff evaluations. Calculations show that for certain break sizes, peak clad temperatures (PCT) of greater than 2200^{o}F can be reached. (Results of these calculations are provided as Attachment 5). For these breaks, if the RC pumps are tripped some time after the break, consequences could be worse than if the pumps are tripped immediately. This is because prolonged operation of the RC pumps increases mass loss through the break for these break sizes.

The indications are that the operator has about 3-10 minutes, depending on plant design, to initiate reactor trip.

These new bulletins revise information contained in previous bulletins. The short-term actions called for are:

- Trip all operating RC pumps upon reactor trip and HPI initiation (Provide 2 licensed operators in the control room at all times during operation to accomplish this action and other immediate and follow-up actions).
- Perform and submit a report of LOCA analyses for a range of small break sizes and time lapses between reactor trip and pump trip. Determine the peak clad temperature for each parameter pair.
- Develop new guidelines for operator action for both LOCA and non-LOCA transients, that take into account impact of RC pump trip requirements. For B&W plants, also include requirements to fill OTSGS to higher level.
- Revise emergency procedures and train all licensed reactor operators on developed guidelines.
- Provide analyses and develop guidelines and procedures related to inadequate core cooling and define conditions under which a restart of the RC pump system should be attempted.

The one long-term action is:

- Propose a design which will assure automatic tripping of the operating RC pump system under all circumstances in which this action may be needed.

Mr. J. Milhoan

The Lessons Learned Task Force has considered the area of plant operation and means of reducing human errors. Five broad areas have been evaluated and Task Force recommendations are:

- Human factor -- The Staff would work with an IEEE group to write a standard on control room design, taking into account displays and panel layout, use of direct rather than derived information, habitability, communication adequacy, etc.; Reg. Guide 1.47 (specify conditions for bypassing inoperable status) may be expanded in scope and application.

- Operational evaluation program -- The Staff sees a need for the utilities to have a program for evaluation of operating experience. For such to be effective, resources will have to be committed, and the program must have free and ready access to information. The NSAC (see under Zebroski) and the Institute of Nuclear Power Operations are examples of such.

- Personnel -- Reg. Guide 1.8, "Personnel Selection and Training," is out for public comment. The Staff is now working on training requirements for non-licensed personnel (instrument and control technicians, auxiliary operators and maintenance personnel).

- Audits and Inspections -- The Staff would like to see a review of the audit program (done by the utility) from the standpoint of identifying which operating activities require recurring audits.

- Emergency procedures -- There is need for research with respect to guidelines for writing these, how these should be written, taking into account human factors.

The Lessons Learned long-term recommendations would be published in October.

(Whereupon, the meeting was adjourned at 8:20 p.m.)

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NOTE: For additional details, a complete transcript of the meeting is available in the NRC Public Document Room, 1717 H St., NW, Washington, DC 20555, or from Ace-Federal Reporters, Inc., North Capitol Street, NW, Washington, DC.

separations began or threatened to begin and the subdivision of the firm involved.

Pursuant to 29 CFR 90.13, the petitioners or any other persons showing a substantial interest in the subject matter of the investigations may request a public hearing, provided such request is filed in writing with the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than August 31, 1979.

Interested persons are invited to submit written comments regarding the subject matter of the investigations to the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than August 31, 1979.

The petitions filed in this case are available for inspection at the Office of the Director, Office of Trade Adjustment Assistance, Bureau of International Labor Affairs, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, D.C. 20210.

Signed at Washington, D.C. this 14th day of August 1979.

Harold A. Bratt,

Acting Director, Office of Trade Adjustment Assistance.

Appendix

Petitioner: Union/workers or former workers of—	Location	Date received	Date of Petition	Petition No.	Articles produced
Bradohm, Inc. (Workers)	Vestal, N.Y.	8/8/79	7/30/79	TA-W-5,860	Wire wound resistors and inductors.
Holly Sugar Corp. (United Sugar Workers Council of Cal#/Distillery, Rectifying, Wine & Allied Internat'l Union of America)	Brawley, Calif.	8/10/79	8/7/79	TA-W-5,861	Refined sugar.
Leemar Corp. (ILGWU)	Camden, N.J.	8/8/79	7/26/79	TA-W-5,862	Ladies' sportswear and dresses.
Leemar Corp. (ILGWU)	Mantua, N.J.	8/8/79	7/26/79	TA-W-5,863	Ladies' blouses.
Stucar Manufacturing Corp. (workers)	New York, N.Y.	8/8/79	7/30/79	TA-W-5,864	Contractors and men's suits and ladies' tailored coats.
Union Sugar Company (United Sugar Workers Council of Cal#/Distillery, Wine & Allied Internat'l Union of America)	Santa Maria, Calif.	8/10/79	8/7/79	TA-W-5,865	Refined sugar.

[FR Doc. 79-25871 Filed 8-20-79; 8:45 am]

BILLING CODE 4510-28-M

Pension and Welfare Benefit Programs

Advisory Council on Employee Welfare and Pension Benefit Plans; Meeting

Pursuant to Section 512 of the Employee Retirement Income Security Act of 1974 (ERISA) 29 U.S.C. 1142, a meeting of the Advisory Council on Employee Welfare and Pension Benefit Plans will be held at 9:30 a.m. on Thursday, September 6, 1979, in the Federal Ballroom North, Quality Inn-Capitol Hill, 415 New Jersey Avenue, N.W., Washington, D.C.

The purpose of the meeting is to discuss the items listed below and to invite public comment on any aspect of the administration of ERISA.

1. Department of Labor Progress Report.

2. Council Work Group Reports: Collective Bargaining, Communications, Investment and Fiduciary, Legislation, Portability, Prohibited Transactions, Reporting, Disclosure, and Recordkeeping, Seasonal Industries.

3. Statements from the Public.

Members of the public are encouraged to file a written statement pertaining to any topic concerning ERISA, by submitting 30 copies on or before September 5, 1979, to the Administrator, Pension and Welfare Benefit Programs, U.S. Department of Labor, Room S-4522, 200 Constitution Avenue, N.W., Washington, D.C. 20216.

Persons desiring to address the Council should notify Edward F. Lysczek, Executive Secretary of the Advisory Council, in care of the above address or by calling (202) 523-8753.

Signed at Washington, D.C., this 15th day of August 1979.

Ian D. Lanoff

Administrator of Pension and Welfare Benefit Programs.

[FR Doc. 79-25888 Filed 8-20-79; 8:45 am]

BILLING CODE 4510-28-M

[Application No. D-784]

Proposed Class Exemption for Certain Transactions Involving Bank Collective Investment Funds

Correction

In FR Doc. 79-22992 appearing at page 44290 in the issue for July 27, 1979, make the following corrections:

On page 44295, in the first column, in the first full paragraph, in the second line, replace "September 25, 1979" with "[date, 60 days after publication in the Federal Register of the grant of this exemption]"

(2) On page 44295, in the first column, in the second full paragraph, in the second line, replace "September 25, 1979" with "[date, 60 days after publication in the Federal Register of the grant of this exemption]"

BILLING CODE 1505-01-M

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards Ad Hoc Subcommittee on the Three Mile Island, Unit 2 Accident; Implications Re Nuclear Powerplant Design; Meeting

The ACRS Ad Hoc Subcommittee on the Three Mile Island, Unit 2 Accident—Implications Re Nuclear Power Plant Design, will hold a meeting on September 5, 1979 in Room 1046, 1717 H St., NW., Washington, DC 20555.

In accordance with the procedures outlined in the Federal Register on October 4, 1978, (43 FR 45926), oral or written statements may be presented by members of the public, 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 Designated Federal Employee as far in advance as practicable so that appropriate arrangements can be made to allow the necessary time during the meeting for such statements.

The agenda for subject meeting shall be as follows:

Attachment 1

Wednesday, September 5, 1979—8:30 a.m. Until the Conclusion of Business

The Subcommittee may meet in Executive Session, with any of its consultants who may be present, to explore and exchange their preliminary opinions regarding matters which should be considered during the meeting and to formulate a report and recommendation to the full Committee.

At the conclusion of the Executive Session, the Subcommittee will discuss with representatives of the NRC Staff, the nuclear industry, various utilities, and their consultants, state and local officials, and other interested persons, the implications of the Three Mile Island, Unit 2 Accident.

In addition, it may be necessary for the Subcommittee to hold one or more closed sessions for the purpose of exploring matters involving proprietary information. I have determined, in accordance with Subsection 10(d) of Pub. L. 92-463, that, should such sessions be required, it is necessary to close these sessions to protect proprietary information (5 U.S.C. 552b(c)(4)).

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 alloted therefor can be obtained by a prepaid telephone call to the Designated Federal Employee for this meeting, Mr. Richard K. Major, (telephone 202/634-1414) between 8:15 a.m. and 5:00 p.m., EDT.

Background information concerning this nuclear station can be found in documents on file and available for public inspection at the NRC Public Document Room, 1717 H Street, N.W., Washington, DC 20555 and at the Government Publications Section, State Library of Pennsylvania, Education Building, Commonwealth and Walnut Street, Harrisburg, PA 17126.

Dated: August 15, 1979.

John C. Hoyle,

Advisory Committee Management Officer.

[FR Doc. 79-25701 Filed 8-20-79; 8:45 am]

BILLING CODE 7590-01-M

THE PRESIDENT'S ADVISORY COMMITTEE FOR WOMEN

Hearings

Pursuant to the provisions of the Federal Advisory Committee Act (Pub. L. 92-463 as amended), notice is hereby given of a meeting of the President's Advisory Committee for Women.

Date, Time, and Place: September 13, 1979, 10:00 a.m.-5:00 p.m.

Public Hearings: The Capitol, State of North Carolina, Raleigh, North Carolina 27611.

Closed Business Session: September 14, 1979, 8:00 a.m.-9:30 a.m.: Holiday Inn, 320 Hillsborough Street, The Chambers Room, Raleigh, North Carolina.

Public Hearings: 10:00 a.m.-12:00 noon, The Capitol, State of North Carolina, Raleigh, North Carolina 27611.

Open Business Session: 12:15 p.m.-4:30 p.m., Holiday Inn, 320 Hillsborough Street, The Chambers Room, Raleigh, North Carolina.

Purpose: A regular scheduled regional meeting.

The agenda for the meeting will include the following: Public hearings on education, employment, health, and welfare. The Committee will focus on strategies, programs and meetings in their regular meetings. There will also be discussions on new committee business.

A portion of the above meeting will be closed under the authority of section 10(d) of the Federal Advisory Committee Act—Exemptions 2 and 6 of the Government in the Sunshine Act. During its closed session, the Committee will discuss personnel and Committee management.

Sarita Schotta,

Executive Director.

August 15, 1979.

[FR Doc. 79-25680 Filed 8-20-79; 8:45 am]

BILLING CODE 4510-23-M

SECURITIES AND EXCHANGE COMMISSION

[Rel. No. 10831; 812-4234]

Federal Life Insurance Co. (Mutual), et al.; Application

August 14, 1979.

Notice is hereby given that Federal Life Insurance Company (Mutual) ("Federal Life"), a mutual life insurance company organized under the laws of the State of Illinois, Federal Life Variable Annuity Account A ("Separate Account"), a separate account of Federal Life registered as a unit investment trust under the Investment Company of 1940 ("Act") and FED Mutual Financial Services, Inc. ("Underwriter"), 3703 W. Lake Avenue, Glenview, IL 60025, the principal underwriter of the Separate Account, (hereinafter collectively referred to as "Applicants"), filed an Application on November 25, 1977, and Amendments thereto dated February 24, 1978, and July 6, 1979 pursuant to Section 11 of the Act for an Order approving certain offers of exchange, pursuant to Section 6(c) of the Act for an amended Order of exemption from the provisions of Section 26(a) and 27(c)(2), and for additional exemptions under Section 22(d). The original Order which is sought to be amended was issued to the Applicants herein on April 7, 1978 (with the exception of Underwriter) (File No. 812-3810) pursuant to Section 11 of the Act approving certain offers of exchange, and pursuant to Section 6(c) of the Act granting exemptions from the provisions of Sections 26(a) and 27(c)(2) (Investment Company Act Release No. 9341).

All interested persons are referred to the Application, and Amendments thereto, on file with the Commission for a statement of the representations contained therein which are summarized below.

The Separate Account was established by Federal Life to fund both individual and group periodic premium deferred and single premium immediate variable annuity contracts ("Contracts") designed for use in connection with retirement plans, which may or may not qualify for Federal tax advantages. The Contracts are currently being offered and sold to the public pursuant to an effective registration statement under the Securities Act of 1933, the latest Post-Effective Amendment to which was declared effective on April 30, 1979 (File No. 2-53626). The Separate Account presently consists of six Account Divisions, which invest respectively, in the shares of Wellington Fund, Inc., Windsor Fund, Inc., Qualified Dividend Portfolio, Inc., Wellesley Income Fund, Inc., W.L. Morgan Growth Fund, Inc. and Westminster Bond Fund, Inc. ("Fund Participants"). Applicants propose to create two new Account Divisions or "Series", which would invest in the shares of Whitehall Money Market Trust and Qualified Dividend Portfolio II, Inc., respectively, ("Additional Fund Participants").

The Fund Participants and Additional Fund Participants are members of the Vanguard Group of Investment Companies, and each is diversified, open-end management investment company registered under the Act. Each has a currently effective registration statement under the Securities Act of 1933.

Applicant FED Mutual Financial Services, Inc. a registered broker-dealer, acts as the principal underwriter of the Contracts issued by the Separate Account. Wellington Management Company ("Wellington") serves as investment adviser to each of the above Fund Participants and Additional Fund Participants.

Under all of the Contracts, the Owner of an Invididual Contract or a Certificate Holder under a Group Contract (hereinafter referred to as individual Participants) may allocate all or a portion of his Net Purchase

ATTENDANCE LIST

ACRS AD HOC SUBCOMMITTEE MEETING ON TMI-2 ACCIDENT IMPLICATIONS
WASHINGTON, DC
SEPTEMBER 5, 1979

ACRS

D. Okrent, Chairman
M. Carbon
W. Kerr
W. Mathis
M. Plesset
I. Catton, ACRS Consultant
W. Lipinski, ACRS Consultant
C. Michelson, ACRS Consultant
T. Theofanous, ACRS Consultant
R. Major, Designated Federal Employee
P. Tam, ACRS Staff

BABCOCK & WILCOX

J. MacMillan
H. Roy
J. Taylor
E. Womack
C. Parks
J. Mullin

COMBUSTION ENGINEERING

C. Brinkman
W. Burchill

SMUD

J. Mattimoe

TENNESSEE VALLEY AUTHORITY

D. Lambert
D. Patterson
J. Hutton

NRC STAFF

D. Hoatson
C. Long
R. Tedesco
R. Cudlin
J. Milhoan
J. Voglewede
W. Minners
R. Vollmer
H. Krug
P. Stoddart
J. Conran
C. Hofmayer
J. Shapaker
G. Holahan
W. Milstead
J. Oïshinski
L. Beratan

BECHTEL POWER CORP.

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F. Stetson
P. Higgins
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ELECTRIC POWER RESEARCH INST.

R. Leyse
E. Zebroski

STAFCO

R. Neve
A. Ankrum

ATTACHMENT 2

FRAMATOME

J. Amroune -

MCGRAW-HILL

R. Adamson
S. Wynhopp

GILBERT ASSOCIATES

H. Yocom

SCS

D. Crowe

NUTECH

T. Martin
D. Burnham

MEMBERS OF THE PUBLIC

M. Meltzer, Ace-Federal
J. Brentner, Ace-Federal
J. Gianelli, U.S. Senate
H. Meyers, House Int. Comm.
E. Olmsted, Sullivan & Cronwell
M. Simpson, USS-TMI
D. Law
D. Davis
J. Burnam, Congressman's M. Edwards Office
I. Mosely
C. Webb
J. Leburnam, Boston Globe

CONSUMERS POWER CO.

T. Sullivan

DUKE POWER CO.

W. Owen

NUS

D. Jaffe

TOKYO ELECTRIC

H. Hamada

EDISON ELECTRIC INST.

S. Kraft

KEPCO

K. Ota

REVISED
(9/30/79)

TENTATIVE SCHEDULE
AD HOC SUBCOMMITTEE MEETING ON THREE MILE ISLAND 2 ACCIDENT IMPLICATIONS
WASHINGTON, DC
SEPTEMBER 5, 1979

		APPROXIMATE TIME
STATUS REPORT ON SEP (SYSTEMATIC EVALUATION PROGRAM); where it stands, major areas of concern		8:30 a.m.
LONG-TERM LESSONS LEARNED TASK FORCE RECOMMENDATIONS INCLUDING:		8:45 a.m.
- discussion of hydrogen questions in detail		
- future application of Class 9 events to licensing actions - reference, Board Question on Salem Spent Fuel Pool		
- how to address possible improvements involving design changes for future reactors		
Examples: a. more reliable feedwater system b. more reliable shutdown heat removal system c. other		
********** BREAK ********	10 minutes	10:30 a.m.
LONG-TERM LESSONS LEARNED TASK FORCE RECOMMENDATIONS (CONT'D)		10:40 a.m.
********** LUNCH ********	12:30 p.m. -	1:30 p.m.
HOW TO GET SAFETY QUESTIONS ON THE TABLE?	2 1/2 hrs.	1:30 p.m.
1. B&W actions on internal memoranda on Davis-Besse (September 24, 1977) incident (J. MacMillan)		
2. TVA experience in raising questions with B&W (D. Patterson)		

Attachment 3

REVISED
(8/30/79)

		APPROXIMATE TIME
3.	NRC experience in their first handling of Michelson's report - Questions and Answers Session (OIA)	
4.	How to get safety called to the attention of all parties concerned	
	- AIF, EEI (E. Zebroski, Nuclear Safety Analysis Center - EPRI)	
	- B&W, TVA, NRC	
	- others	
	********** BREAK ********	10 minutes
	DISCUSSION OF NUREG-0600, "Investigation into the March 28, 1979 Three Mile Island Accident by the Office of Inspection and Enforcement	45 minutes 4:00 p.m.
	BRIEFING ON BULLETINS 79-05C and 79-06C	45 minutes 4:45 p.m.
	DISCUSSION AND STATUS OF NRC REPORT ON AUXILIARY FEEDWATER	45 minutes 5:30 p.m.
	SPECIFIC ISSUES:	6:15 p.m.
	a. Rancho Seco Transient (March 20, 1978) b. Overfilling of Steam Generators c. Air Systems d. others	
	ADDITIONAL TIME FOR LESSONS LEARNED (if required)	
	ADJOURNMENT	7:30 p.m.

Attachment 4
W. Minners

PROPOSED DEFENSE-IN-DEPTH CONCEPT

EVENT CLASS	SAFETY GOAL		ECHELON	DBE	ACCEPTANCE CRITERIA
	DOSE	FREQ/RY			
NORM. OP.	ALARA		FUEL CLAD RCPB RPS	TECH. SPEC.	
TRANSIENT		10			DNB 110% ASME
TMI/BF ↑ Brown's Ferry	VERY SMALL FRACTION PART 100	$3 \cdot 10^{-3}$	CONTAINMENT ECCS	50% TID SOURCE 150% RWST 40% M/W 10% ECCS	50% DES. PRESS RUBBLE 3500°F
MITIGATED ACCIDENTS	SMALL FRACTION PART 100	10^{-3}	ESF	LOCA STM/FW BRK ATWS SSE	2200°F 1% M/W COOLABLE CORE ASME CODE
PARTIALLY MITIGATED ACCIDENTS	PART 100	10^{-4}	CONTAINMENT RHR	TID SOURCE 2 × RWST 100% M/W	2 × DES. PRESS 5 × DECAY HEAT
UNMITIGATED ACCIDENTS	> PART 100	10^{-5}	SITE EMER PLAN	NONE CORE MELT	FIXED DIST NOTIFICATION

Decreasing consequences

Attachment 4

	BREAK LOCATION	BREAK SIZE	MAXIMUM AVAILABLE TIME FOR PUMP TRIP	EFFECT OF CONTINUOUS PUMP OPERATION	EFFECT OF ONE PUMP IN EACH LOOP
B&W	RESULTS NOT SENSITIVE DUE TO HOMOGENEOUS MODELING ASSUMPTION	LIMITING BREAK SIZE ABOUT 0.02 - 0.2 FT^2	~3 MINUTES (BASED ON PRELIMINARY CALCULATIONS)	ACCEPTABLE CORE COOLING	NO EVALUATION
CE *	FOUND HOT LEG BREAKS LIMITING/ SOME COLD LEG BREAKS COULD EXCEED 2200°F	LIMITING BREAK SIZE ABOUT .02 - .1 FT^2	6 MINUTES AFTER TRIP + SIAS FOR EM ANALYSIS 10 MINUTES AFTER TRIP +SIAS FOR BE ANALYSIS	0.1 FT^2 BREAK IN HOT LEG LEADS TO PCT's > 2200°F	ACCEPTABLE CORE COOLING FOR BE ANALYSIS PROVIDED TWO PUMPS TRIPPED WITHIN 5 MINUTES AFTER BREAK
Westinghouse	COLD LEG BREAKS LIMITING, NO HOT LEG BREAKS ANALYZED RESULTED IN PCT'S > 2200°F	LIMITING BREAK SIZE .02 - .05 $FT.^2$	10 MINUTES FOR ALL PLANT TYPES (2, 3, 4 LOOPS)	ACCEPTABLE CORE COOLING	NO EVALUATION

* CE ANALYSES PERFORMED FOR PLANTS WITH 200 PSI SIT'S, 1200 psi HPSI PUMPS. ANALYSES CONSIDERED CONSERVATIVE WRT PLANTS WITH 600 PSI SITS AND/OR HIGHER HEAD HPSI PUMPS.

Attachment 5

Attachment 5