

#### UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

# 03/30/94 MEETING NOTICE

Wednesday, March 30, 1994 MAR 1 5 1994 DATE & TIME: 8:00am to 4:30pm

Conference Rooms A & B LOCATION: Nicholson Lane South Building 5650 Nicholson Lane Rockville, Maryland 20852

POTENTIAL FOR THE LOSS OF ECCS IN BURS DUE TO LOCA GENERATED SUBJECT : DEBRIS (STRAINER BLOCKAGE STUDY)

This meeting will provide a forum for reviewing the analysis being PURPOSE : performed by Science and Engineering Associates (SEA). The focus will be on calculational methods for estimating LOCA generated debris and attendant BWR suction strainer blockage effects. The initial insights and results of the analysis will be discussed. Also, this meeting will provide an update on information discussed in a prior public meeting on September 15, 1993.

> SEA's Preliminary Draft Report No. 95-554-06-A:1, Parametric Study of the Potential for BWR ECCS Strainer Blockage Due to LOCA Generated Debris", January 20, 1994 will be the principal reference for this meeting, and it has been placed in the public document room. A list of pertinent references are included with this notice.

This meeting provides an opportunity for all interested and knowledgeable parties to discuss their views and to introduce pertinent information related to this study.

NRC Hdqs. - P. Norian, A. Serkiz, M. Marshall, M. Virgilio, PARTICIPANTS: R. Barrett, R. Lobel, R. Elliott, J. Hickman

SEA - G. Zigler, F. Sciacca, D. Rao, W. Thomas

Indust y - R. Sgarro, BWROG/PP&L other BWROG representatives B. Houston, EPRI - Charlotte G. Hart, PCI B. Alpha, TRANSCO

Meetings between NRC technical staff and applicants, or other NOTICE: industry re esentatives are open for interested members of the public, petitioners, intervenors, or other parties to attend as observers pursuant to "Open Meeting Statement of NRC Staff Policy," 43 Federal Register 28058, 06/28/78.

PDR

Aleck Serkiz CONTACT: 301-492-3942 fax number: 301-492-3892

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Michael L. Marshall Jr. 301-492-3713 RETURN TO REGULATORY CENTRAL FILE

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# TENTATIVE 03/30/94 MEETING AGENDA

8:00 - 8:15	Introductory	remarks	(A.	Serkiz)
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- 8:15 10:30 Review of initial analysis and methodology (SEA staff).
- 10:30 10:45 Break

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- 10:45 12:00 Debris generation and transport considerations (SEA staff).
- 12:00 1:00 Lunch
- 1:00 3:00 Work done since January 1994 (SEA staff)
- 3:00 3:15 Break
- 3:15 3:45 Future work efforts and tentative timetable (RES staff).
- 3:45 4:30 Wrap-up discussions.

## 03/30/94 MEETING BACKGROUND REFERENCES

- 1. NUREG-0869, Rev. 1, "USI A-43 Regulatory Analysis," October 1985.
- NUREG-0897, Rev. 1, "Containment Emergency Sump Performance," October 1985.
- NUREG/CR-2772, "Hydraulic Performance of Pump Suction Inlets for Emergency Core Cooling Systems in Boiling Water Reactors," June 1982.
- 4. NUREG/CR-2791, "Methodology for Evaluation of Insulation Debris Effects," September 1982.
- NUREG/CR-2982, Rev. 1, "Buoyancy, Transport, and Head Loss of Fibrous Reactor Insulation," July 1983.
- NUREG/CR-3394, Vols. 1 & 2, "Probabilistic Assessment of Recirculation Sump Blockage due to Loss of Coolant Accidents," July 1983.
- NUREG/CR-4792, Vol. 1, "Probability of Failure in BWR Reactor Coolant -Piping," March 1989.
- 8. Regulatory Guide 1.82, Rev. 1, "Water Sources for Long-Term Cooling Following a Loss-of Coolant Accident," November 1985
- 9. Generic Letter 85-22, "Potential for Loss of Post-LOCA Recirculation Capability Due to Insulation Debris Blockage," December 3, 1985.
- NRC Bulletin No. 93-02, "Debris Plugging of Emergency Core Cooling Suction Strainers," May 11, 1993.
- 11. NRC Bulletin No. 93-02, Supplement 1, "Debris Plugging of Emergency Core Cooling Suction Strainers," February 18, 1994.
- 12. NRC Info. Notice 88-28, "Potential for Loss of Post-LOCA Recirculation Capability Due to Insulation Debris Blockage," May 19, 1988.
- NRC Info. Notice 90-07, "New Information Regarding Insulation Material Performance and Debris Blockage of PWR Containment Sumps," January 30, 1990.
- NRC Info. Notice 92-71, "Partial Plugging of Suppression Pool Strainers at a Foreign BWR," September 30, 1992.
- 15. NRC Info. Notice 93-94, "Potential for Loss of Emergency Cooling Function Due to a Combination of Operational and Post-LOCA Debris in Containment," April 26, 1993.
- 16. NRC Info. Notice Supplement 1, May 6, 1993.
- 17. LER 93-007-00, "Potential Plugging of ECCS Suction Strainers by Containment Debris," July 2, 1993.

- BWROG Report, "Pipe Break Probabilities in Boiling Water Reactors," November 1993.
- 19. BWROG Report, "Operator Response to a Loss of ECCS," November 1993.
- 20. PCI Report, "Air Blast Destructive Testing of NUKON® Insulation Simulation of a Pipe Break LOCA", October 1993.
- PCI Report, "Head Loss Tests with Blast Generated NUKON® Insulation Debris," October 1993.
- TRANSCO Report, "Experimental Measurements on the Characteristics of Flow Transport, Pressure Drop, and Jet Impact on Thermal Insulation, NRC Guide 1.82," May 1992.
- 23. TRANSCO Report, "The Effects of pH and Themal Exposure on the Head Loss of Series A Shreds, NRC Guide 1.82," May 1992.
- TRANSCO Report, "Measurements on the Sink Rate and Submersion Time for Fibrous Insulation", May 22, 1993.
- TRANSCO Report, "Postulations of the Range of Fibrous Insulation Debris Size Generated by High Energy Jet Impact," April 1993.
- 26. SEA Preliminary Draft Report, "Parametric Study of the Potential for BWR ECCS Strainer Blockage Due to LOCA Generated Debris," January 1994.

## 03/30/94 MEETING NOTICE DISTRIBUTION

Central Files Public Document Room Branch Reading Files J. Murphy, RES\DSIR C. Serpan, RES\DSIR\EIB P. Nortan, RES\DSIR\EIB A. Serkiz, RES\DSIR\EIB M. Marshall, RES\DSIR\EIB S. Flory, RES M. Virgilio, NRR\DSSA R. Barrett, NRR\DSSA\SCSB R. Lobel, NRR\DSSA\SCSB R. Elliott, NRR\DSSA\SCSB R. Pulsifer, NRR\PDIII-2 J. Hickman, NRR\PDIII-1 J. White, RGN1\RPB2 P. Eapen, RGN1\EB G. Zigler, SEA F. Sciacca, SEA D. Rao, SEA W. Thomas, SEA L. England, BWROG R. Sgarro, BWROG and PP&L L. Gifford, General Electric Company W. Houston, EPRI D. Mavet, EPRI P. Bessette, Duane Arnold Energy Center J. Kinsey, Duane Arnold Energy Center P. Roney, Perry Nuclear Power Plant M. Hayner, Perry Nuclear Power Plant H. Reppert, Perry Nuclear Power Plant R. Loeffler, Perry Nuclear Power Plant M. Mjaatvedt, PP&L G. Hart, PCI B. Alpha, TRANSCO E. Wolbert, TRANSCO G. Hecker, ARL H. Wolff, Sierra Nuclear Corp. L. Barnes, Sequoia Consulting Group R. Siegel, Allied Marine Service

A. Bilanian, CDI