

November 30, 2001

MEMORANDUM TO: Stuart A. Richards, Director
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Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Jack Cushing, Project Manager, Section 2
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SUBJECT: SUMMARY OF MEETING HELD ON NOVEMBER 15, 2001, WITH THE
COMBUSTION ENGINEERING OWNERS GROUP EXECUTIVES

On November 15, 2001, the staff held a public meeting with the Combustion Engineering Owners Group (CEOG) at the NRC headquarters in Rockville, Maryland. The purpose of this meeting was to exchange information and to provide a forum for discussion of topics related to NRC and CEOG activities. Attachment 1 lists the meeting participants. The meeting slides are available in ADAMS under the accession number ML013230016.

The meeting opened with the Deputy Director of the Office of Nuclear Reactor Regulation, Mr. Jon Johnson, welcoming the executives to the meeting. Mr. Johnson, in his opening remarks, discussed the security issues the NRC and the industry have faced since the events of September 11, 2001. The NRC and the industry are both on a state of high alert, with the NRC staffing the incident response centers around the clock. He discussed the NRC interactions with other government agencies, communications with licensees and transmitting fingerprints on a compact disc to speed background checks. He said, while the heightened security is placing additional demands on NRC resources, the staff is adjusting to maintain its routine business.

Mr. Johnson stated that he appreciates the work the Owners Group performs and he values this meeting as an opportunity to solicit feedback from the Owners Group.

Mr. Greg Overbeck, the Chairman of the CEOG, in his opening remarks said that the CEOG has a good working relationship with the staff. Mr. Overbeck expressed the CEOG's appreciation for the partial fee waiver for topical reports CENPSD-994, 995 and 996. Mr. Overbeck mentioned that the CEOG and the Westinghouse Owners Group (WOG) are combining project offices and are investigating leveraging projects over a broader base to capture the greatest efficiencies.

The first presentation on the agenda was the CEOG Chairman's report by Mr. Gary Pavis, Vice Chairman of the CEOG. The report covered four topics: management update, enhanced regulatory interface, CEOG/WOG synergies and strategic technical issues.

The management update discussed the organization of the CEOG including the various functional subcommittees.

In the area of enhanced regulatory interface, the CEOG has completed a self-assessment of the topical report process and has shared the result with the NRC. Mr. Scherer covered this topic in greater detail in his presentation. The CEOG has had frequent and effective communication with the staff via meetings and teleconferences. Overall, the CEOG believes the regulatory interface has improved.

The CEOG/WOG has been investigating synergies such as: co-locating committee meetings, joint leadership meetings, identifying common projects for cost sharing and single program management office. The end result should be more joint projects with less duplication of effort.

The CEOG discussed their strategic issues: design/licensing basis, reactor plant materials, plant performance improvements, shorter refueling outages. The CEOG briefly provided an overview of their activities in these areas.

The CEOG is working on risk-informed technical specifications, engineering self assessments, maintenance rule implementation, and reactor coolant pump seal integrity.

The CEOG is coordinating its reactor plant materials issues efforts with the Electric Power Research Institute's material reliability program.

The CEOG is pursuing emergency operating procedure improvements as well as analyzing contributors to plant unavailability.

The CEOG is working on an outage readiness review program, alternate decay heat removal in Mode 6, and startup test elimination to shorten refueling outages.

Mr. Ed Scherer, the CEOG Licensing Subcommittee Chairman, discussed in detail the CEOG's regulatory interface with the NRC. A key area of the regulatory interface has been the shared self-assessment the CEOG performed on the topical report process. An action item from the last CEOG executive meeting was for the CEOG to perform a self-assessment of their topical report process. The staff has worked with the CEOG and has incorporated many of the lessons learned into the office instruction for topical reports. The CEOG submitted their publicly available self-assessment report to the staff on October 16, 2001. The self-assessment primarily focused on process improvements. A brief highlight of the improvements identified and guidance given in the office instruction and the CEOG self-assessment included:

- Addressing fee waivers (no review until issue is resolved).
- Clearly identifying a need date (which licensees plan to submit an amendment and when).
- Frequent communication between staff and owners group.
- For risk-informed submittals, select systems with sufficient commonality to make a single risk analysis.
- Pursue parallel, not series processes.
- Licensees need to follow their implementation plan.

This is a continuous improvement process, as improvements are identified by either the staff or an Owners Group they will be captured and integrated into the Office Instruction.

The CEOG discussed the cost to prepare and review topical reports before and after the self-assessment. NRC review fees before the self-assessment were higher than the CEOG's cost of preparing the reports. After the self-assessment, the NRC's estimated review fees are lower than the CEOG's cost of development.

Mr. Michael Melton from the CEOG's material subcommittee discussed the reactor vessel head issues affecting CEOG member plants and the CEOG's plans. The CEOG and the WOG intend to support a joint project to develop a plan to manage reactor vessel head issues including: crack detection and susceptibility predictions, primary water stress corrosion cracking mitigation and repair strategies, and head replacement.

The control rod drive mechanism (CRDM) nozzle cracking plans were discussed. There have been no inspection results from CEOG plants. CEOG plants with refueling outages beginning this fall plan to inspect in accordance with Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles." St. Lucie Unit 2 will be the first CEOG plant to inspect. The CEOG mentioned that any head replacement designs would include an insulation design that would allow for easier inspection than the current design. All the pressurized water reactors (PWR) owners groups are investigating the transgranular stress corrosion cracking (TGSCC) issue. The work includes identifying potential susceptible regions and conditions. The expectation for work on TGSCC is to determine the plant susceptibility and develop recommendations to address the issue.

Ms. Dandois, from the Office of the Chief Financial Officer discussed the criteria for fee waivers in accordance with 10 CFR 170.21, footnote 4. There was general agreement that if the CEOG plans to request a fee waiver for the review of a topical report, it should do so prior to the start of the review. In fact, the office instruction on topical reports provides guidance to the staff that a review should not start until the issue of fee waivers has been resolved.

Mr. Tom Boyce, from the NRC staff, discussed enhanced performance indicators for the reactor oversight program. The enhanced indicators are derived from the work done by the Office of Nuclear Regulatory Research (RES) as part of its feasibility study on risk-based performance indicators (RBPIs). NRR had requested RES to examine the feasibility of reliability indicators that could be used to enhance the current set of performance indicators (PIs) in the reactor oversight process (ROP).

During the first year of implementation of the ROP, industry expressed several concerns with the current safety system unavailability (SSU) indicators. Some of these concerns can be addressed through the use of reliability PIs and improved guidance for the SSU PIs.

Six of the reliability PIs from the RBPI program will be pilot tested beginning in the second quarter of 2002. These systems are the four systems currently monitored by the SSU indicators plus the service water (SW) and closed cooling water (CCW) systems (or their equivalent). The pilot test will also include improvements to the existing SSU to resolve a number of concerns, including monitoring the maintenance rule risk-significant functions only, adding the SW and CCW systems while eliminating cascading of other support systems to the

monitored systems, and removing shutdown operations from the indicators. The NRC will publish a Regulatory Information Summary to inform all licensees of the pilot program.

In the future, the NRC expects to continue to improve the guidance for the SSU indicators. These improved SSU indicators, along with the reliability indicators, are anticipated to provide a more precise, risk-informed indication of safety system capability. An NRC/industry work shop is being planned for January 2002. Some of the issues being examined involve development of plant-specific, risk-informed thresholds, consistency with the maintenance rule, data collection and the impact of additional PIs on the action matrix and the inspection program.

Mr. Michael Johnson, of the NRC staff, provided an update on the status of the licensee self-assessment (LSA) program. The CEOG would like credit for their engineering self-assessments, which would be included in the LSA program. The staff met with the Nuclear Energy Institute (NEI), the CEOG and the Regions on August 16, 2001, to discuss the LSA program and the CEOG engineering self assessments. The results of the meeting were to proceed with the planning for the LSA program.

The planning included the development of a program plan that called for forming an LSA study and conduct group in September and included other branches and regional participation. The purpose of the study and conduct group was to achieve internal alignment and obtain stakeholder input, and develop LSA objectives and structure. The group was then to hold an information gathering public workshop in the November-December time frame. After the workshop, the objectives, principles, and concepts of the LSA would be finalized, an NRC/industry working group empaneled, and eventually a pilot test conducted.

The events of September 11, 2001, resulted in the postponement of this plan. The staff still wants to proceed as quickly as practicable, but due to resource challenges, we are reassessing the plan to launch in January 2002 and the launch date may be later in the first quarter or early in the second quarter of 2002.

Mr. Jared Wermiel, of the NRC staff, raised the issue of the control element assembly (CEA) cracking at Palo Verde. The problem seems to have been traced to a computer code (CEALL), which is used to calculate the useful life of Combustion Engineering (CE) plant CEAs based on its construction (the tips of the Palo Verde's CEAs are constructed differently from all other CE CEAs), fluence, and other parameters. CE is evaluating the code to determine if its inability to predict the Palo Verde CEA behavior presents questions on CEA life at other CE plants. CE will present the results of their evaluation in mid December 2001.

Dr. Sheron, the Associate Director for Project Licensing and Technical Analysis, briefly described the Three Mile Island (TMI) failure of a plugged steam generator tube. The situation TMI discovered was that water leaked into a plugged tube. As the plant heated up, the water expanded and could not leak out past the plug; the tube failed. The failed tube then impacted the surrounding in service tubes causing those tubes to wear. A member of the CEOG said that they were aware of the issue and suggested that the pressure could be relieved in the plugged tube by drilling a hole in the tube, thereby preventing the tube from failing.

The meeting concluded with Mr. Greg Overbeck thanking the staff for the open exchange of information. Dr. Sheron stated that these meetings are useful means for the staff to receive feedback from the owners groups and for the staff to highlight issues of importance to the staff.

Project No. 692

Attachment: Meeting Attendees

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Meeting Notice: ML012820257

ACCESSION NO.: ML013270005

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NRC AND THE CEOG

November 15, 2001

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