

From: Lawrence Burkhart } NRR
To: Jin Chung
Date: 11/30/01 6:39AM
Subject: Re: PROPOSED C-NOTE

I will attempt to add that info to the C-note.

>>> Jin Chung 11/30/01 06:13AM >>> NRR

I am wondering whether my comments are too late. It was my understanding that the licensee commitments to operate beyond December 31, 2001 included not only increase the availability of safety systems/components (item 5 in your attachment) by minimizing on-line maintenance works until February shutdown but also provide additional operator training and increased surveillances with additional plant personnel. The above two additional items are, in my view, critical to reduce the MLOCA CCDP and other sequence CCDPs by 20 % as claimed by the licensee. The increase of the surveillance and training would impact on the on-demand and running failure rates of the critical safety systems (i.e. AFWS, LPI,HPI, EDG, etc.), and in turn affect other sequence mitigation and their CCDPs such as SBO, LLOCA, ATWS, and transients.

>>> Lawrence Burkhart 11/29/01 03:48PM >>>
Brian,

Attached is the proposed C-note. Please let me know of any comments/questions. After I receive your OK I will forward to the EDO staff.

CC: Gary Holahan; Jack Cushing; Richard Barrett

C-30

**SUBJECT: STATUS OF THE STAFF'S REVIEW OF FIRSTENERGY NUCLEAR
OPERATING COMPANY'S (FENOC'S) BULLETIN 2001-01 RESPONSE FOR
DAVIS-BESSE**

The staff hosted a public meeting on November 28, 2001, with FENOC (licensee) representatives as part of its ongoing efforts associated with review of the licensee's Bulletin 2001-01, "Reactor Pressure Vessel Head Penetration Nozzle Cracking," responses. The licensee provided additional information regarding its crack initiation and growth model as well as its risk-informed evaluation. To address this issue and to justify operation beyond December 31, 2001, the licensee also committed to (1) shutdown Davis-Besse on February 16, 2001, for the commencement of the refueling outage, (2) perform the vessel head penetration (VHP) nozzle inspections as recommended in the Bulletin, (3) characterize any cracks that are identified in VHP nozzles (as required by the ASME Code), (4) operate the plant at a lower reactor coolant system hot leg temperature to reduce the vessel head temperature effects on crack initiation and growth, and (5) maximize the availability of the plant's redundant critical safety systems until shutdown.

Recognizing the potentially large uncertainties associated with this cracking mechanism and its potential consequences, the staff performed (and continues to refine) a risk-informed evaluation of this issue as it applies to the Davis-Besse facility. Based on all of the information available to the staff, the core damage frequency (CDF) resulting from the occurrence of a small loss-of-coolant accident resulting from outside diameter-initiated primary water stress corrosion cracking of a VHP nozzle ranges from slightly less than $1E-05$ per-reactor year to approximately $1E-04$ per-reactor year. These Δ CDF values (and associated incremental core damage probability values) may be higher than those values associated with actions that the NRC normally finds acceptable for permanent plant changes and maintenance activities. This has resulted in increased management attention on this issue in accordance with risk-information guidance contained in Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," and RG 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." After considerable deliberation and increased NRR management attention, it is the staff's judgment that FENOC has provided sufficient information to justify operation of the Davis-Besse facility until February 16, 2001. This finding is based on the information provided by the licensee (including the information relayed to the staff in the November 28, 2001, meeting), the information and experience gained from the results of previous inspections, the knowledge and expertise of the staff and its contractors, and NRR management input.

The staff is continuing its efforts to ensure that all relevant data and information, including the commitments referred to above, are clearly and promptly placed on the Davis-Besse docket.