Poehler, Jeffrey

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Hardies, Robert

Sent:

Wednesday, December 19, 2012 12:07 PM

To: Subject:

Nove, Carol, Poehler, Jeffrey, Stevens, Gary, Kirk, Mark, Csontos, Aladar

FW: Chairman briefing on Doel 3

FYI

Robert Hardies
Senior Level Advisor for Materials Engineering
Division of Engineering
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

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Cel	

From: Cheok, Michael

Sent: Wednesday, December 19, 2012 8:24 AM **To:** Leeds, Eric; Dorman, Dan; Bergman, Thomas

Cc: Hiland, Patrick; Case, Michael; Evans, Michele; Lubinski, John; Nieh, Ho; Hardies, Robert; Rosenberg, Stacey;

Fairbanks, Carolyn; Shuaibi, Mohammed **Subject:** FW: Chairman briefing on Doel 3

Eric, Dan, Tom: We briefed the Chairman yesterday afternoon on Doel 3. This briefing was scheduled a month or so ago, but was re-scheduled several times. Below is a slightly edited version of the meeting notes from Bob Hardies. Please let me or Bob know if you would like to discuss this further. Thanks.

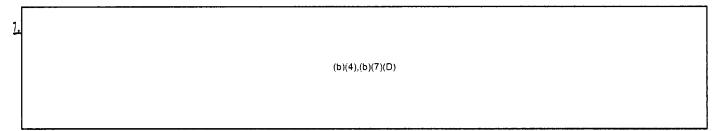
John L: The chairman asked why the Belgians performed the underclad inspection - answer was because DOEL was up for license renewal. So, she may bring this up in future license renewal discussions. We will be glad to update DLR on what we do in terms of vessel inspections/evaluations.

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NRR (Mike Cheok, Bob Hardies and Carolyn Fairbanks) and RES staff (Al Csontos) met with the Chairman and her staff to discuss the discovery and analysis of indications in the reactor pressure vessel at Doel 3. We provided the background regarding the fabrication and inspection at Doel 3 (and Tihange) and the analyses being performed by the licensee to assess potential restart. We described NRC participation in the Belgian regulator's (FANC's) working groups and expert review panels.

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The staff indicated that the Doel 3 licensee had prepared a safety case supporting restart that addressed nondestructive examination, structural integrity assessment and metallurgy, and the staff had reviewed the assessment and determined it to be substantial, comprehensive and of high quality. The staff discussed our reasons as to why it is safe for plants to continue operating in the US. The staff believes that the Doel 3 and Tihange 2 analyses support restart of those plants. Additionally, the staff currently does not believe that indications similar to those at Doel 3 challenge safe operation of reactor vessels in the United States.

The Chairman indicated that in light of the potential permanent shutdown of Doel 3 (and Tihange 2) that the current NRC approach will be scrutinized. She suggested that the current approach of relying on analysis and modeling to assess the safety implications of potential laminar defects in forged reactor pressure vessels would benefit from more tangible actions such as requiring operating plants with forged vessels to review fabrication records that could provide evidence of similar indications. The Chairman also asked the staff to consider requiring new NDE of forged vessels in a few plants.

The staff indicated that the current path forward was to issue an information notice, to continue to work with the Belgians to gather more information and data, to continue to work with industry on their efforts to evaluate this issue, and to hold a public meeting in late February or early March to discuss the findings to date and potential actions going forward (e.g., discuss industry's schedule for probabilistic evaluations and plant vessel examination schedules; potential re-evaluation of reactor vessel integrity/acceptance criteria/NDE inspections criteria; consideration for the need for forged plants to review UT records and/or perform additional inspections). Based on the information we get, the staff will propose potential actions considering the backfit and other NRC processes. In the longer term the staff will evaluate the need to revise regulations to require additional inservice inspection of reactor pressure vessel forgings.