## Hipschman, Thomas

**From:** Hipschman, Thomas
**Sent:** Friday, August 17, 2012 8:56 AM
**To:** Zimmerman, Jacob; Niedzielski-Eichner, Phillip
**Subject:** FW: Update on Doel-3 Issue

FYI

**From:** Merzke, Daniel
**Sent:** Friday, August 17, 2012 10:22 AM
**To:** Hipschman, Thomas; Sanfilippo, Nathan; Castleman, Patrick; Gilles, Nanette; Orders, William; Franovich, Mike
**Cc:** Jackson, Diane; Tracy, Glenn
**Subject:** Update on Doel-3 Issue

This is a summary of information coming out of Belgium. During the 2012 inservice examination, Doel-3 employed a technique looking for underclad cracks adjacent to weld clad surfaces. They did not identify any underclad cracks, but did identify anomalous indications that appeared to be laminar and located mid-wall. The ultrasonic examination technique was not qualified. The acceptance criteria used during the 2012 examination were much more sensitive than required by ASME. If examined using the ASME Code, Section III acceptance criteria, it is likely none of the indications would be recordable and the forging would meet Code requirements. The licensee and FANC attribute the indications to hydrogen flakes that occur when there is too much dissolved hydrogen in the forging material. Laminar indications in low numbers do not pose a structural integrity challenge, but in high enough numbers, may. A structural analysis and qualification of the ultrasonic examination technique are ongoing. NRC staff have volunteered to participate in an NDE working group and technical review group being assembled to review the issue. There is another meeting planned in late September/early October to provide an update on progress of the evaluation. The Belgians have asked that this information not be shared publicly, and that there be no comment by other countries about the operability of Doel-3.

Dan



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