

Hardies, Robert

(4/0)

From: Nove, Carol
Sent: Friday, January 18, 2013 9:35 AM
To: Hardies, Robert; Kirk, Mark
Subject: FW: Belgium trip report with Mark's comments
Attachments: ROH - Jan trip report - with MTK comments.docx

I've made my changes on the attached doc that Mark forwarded.

From: Kirk, Mark
Sent: Friday, January 18, 2013 8:42 AM
To: Nove, Carol; Hardies, Robert
Subject: Fw: Belgium trip report with Mark's comments

Here you go

Mark Kirk

(b)(6)

Cell

(b)(6)

From: Mark Kirk
To: Kirk, Mark
Sent: Fri Jan 18 08:37:31 2013
Subject: Belgium trip report with Mark's comments

E/101

NRC INTERNATIONAL TRAVEL TRIP REPORT

Traveler, Office, Division, Phone Number:

Robert Hardies	NRR/DE	(301) 415-5802	robert.hardies@nrc.gov
Mark Kirk	RES/DE	(301) 251-7361	mark.kirk@nrc.gov
Carol Nove	RES/DE	(301) 251-7664	carol.nove@nrc.gov

Subject:

Travel to Brussels, Belgium to meet with the Federation Agenschap voor Nucleaire Controle (FANC), other international regulators and two review panels to discuss licensee analyses of reactor pressure vessel forging inspection findings on the Doel-3 and Tihange-2 plants.

Deleted: international

Dates of Travel and Countries/Organizations Visited:

January 6-10, 2013
Brussels, Belgium
Federation Agenschap voor Nucleaire Controle (FANC)

Desired Outcome:

Acquire information on the results found at Doel-3 and Tihange-2 nuclear power plant reactor pressure vessel ultrasonic inspections and the on-going licensee investigations and calculations concerning large numbers of quasi-laminar indications from FANC, Bel V and AIB Vinçotte International. Participate in a roundtable discussion between regulatory bodies and expert review panels regarding the licensee evaluations.

Results Achieved:

The NRC acquired information about the quasi-laminar indications identified during ultrasonic inspection of the Doel 3 nuclear power plant, about the possible metallurgical origin of the indications, and about fracture mechanics analyses of the indications. The NRC will use the information received to address the potential for similar indications to exist in U.S. plants. The NRC also acquired information about the conclusions of the Belgian expert review panel and the separate international review panel.

Deleted: defects

Deleted: defects

Summary of Trip:

The purpose of this trip was to support FANC's request for NRC participation¹ on three technical expert working groups and one international expert review panel in support of the Belgian nuclear safety authority's assessment of the indications detected in July 2012 in the beltline shell region of the Doel Unit 3 reactor pressure vessel (RPV). Similar indications were also found at Tihange Unit 2.

Deleted: recently

The meeting consisted of FANC presentations by three expert working groups composed of expert members proposed by foreign nuclear safety authorities or related organizations (NRC,

Deleted: to

¹ Relevant ADAMS Accession Nos.: FANC Request for NRC support (ML1224A335), NRR request for RES assistance (ML1224A258), and RES response to NRR request for assistance (ML1224A108).

~~Official Use Only - Sensitive Internal Information~~

- 3 -

IAEA, NEA, JRC Petten, etc.) that were willing to participate in this issue and two review panels. FANC presented their evaluation of the Doel and Tihange licensee analyses.

Additional Information/Discussion:

(b)(4),(b)(7)(D)

~~Official Use Only - Sensitive Internal Information~~

(b)(4),(b)(7)(D)

Pending Actions/Planned Next Steps for NRC:

The NRC is establishing a plan to address the findings. Proposed activities include:

Develop a communications plan and an information notice.

Perform confirmatory fracture mechanics analyses of forgings with large numbers of laminar indications.

Deleted: deterministic and probabilistic

Hold a public meeting with industry on March 5, 2013.

Deleted: ing

Deleted: tentatively planned for

Points for Commission Consideration/Interest:

(b)(4),(b)(7)(D)