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Hardies, Robert

From: Dyle, Robin [rdyle@epri.com] 14 Feb
Sent: Tuesday, February 12, 2013 11:37 AM
To: Kirk, Mark; Hardin, Timothy
Cc: Hardies, Robert; Stevens, Gary; Csontos, Aladar
Subject: RE: Doel 3- Tihange 2 RPV Issue: FANC Provisional Evaluation Report

Thank you Mark.

Robin Dyle
EPRI Nuclear Power Sector
office: 205-426-5371
cell: (b)(6)

From: Kirk, Mark [mailto:Mark.Kirk@nrc.gov] ~~AK~~ RES
Sent: Tuesday, February 12, 2013 10:29 AM
To: Hardin, Timothy; Dyle, Robin
Cc: Hardies, Robert; Stevens, Gary; Csontos, Aladar
Subject: Fw: Doel 3- Tihange 2 RPV Issue: FANC Provisional Evaluation Report

Dear Tim and Robin -

Please see suggestions below from FANC regarding how more detailed information regarding the Electrabel assessment might be obtained.

Best

Mark

Mark Kirk (b)(6) Cell (b)(6)

From: VAN WONTERGHEM Frederik <Frederik.VANWONTERGHEM@FANC.FGOV.BE>
To: Kirk, Mark
Cc: Hardies, Robert
Sent: Tue Feb 12 11:23:50 2013
Subject: RE: Doel 3- Tihange 2 RPV Issue: FANC Provisional Evaluation Report

Dear Mark

The FANC has released last week via its website the FANC 'Provisional Safety Evaluation Report' and its different annexes (Licensee Safety Case Reports. Evaluation reports of International Review Board and National Scientific Expert Group) (so-called "level 1 documents").

At the moment, the FANC does not intend to make publically available the other more detailed licensee documents ("level 2 documents").

The licensee has however stated that he intends in a few months (after the restart of the Doel 3 & Tihange 2 units?) to make more technical information available to other licensees through the appropriate operating experience networks (probably WANO).

Should the licensees in the United States require further detailed information, we would suggest that they (via EPRI) contact the licensee project manager (Mr Jean Van Vyve) to see if specific documents (for example related to the inclination, location, and size of the various flaws found in Doel 3 and Tihange 2) can be made available on a short term.

Mr. Van Vyve can be contacted on this address:

Jean Van Vyve
Director Nuclear Assets & Projects
Electrabel Generation BeLux
Phone: +32 2 382 25 59
Mailto: jean.vanvyve@electrabel.com

Best regards,

Frederik Van Wouterghem

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Van: Kirk, Mark [<mailto:Mark.Kirk@nrc.gov>]
Verzonden: 01 February 2013 20:13
Aan: VAN WONTERGHEM Frederik
CC: Hardies, Robert; Kirk, Mark
Onderwerp: RE: Doel 3- Tihange 2 RPV Issue: FANC Provisional Evaluation Report

Dear Frederick –

Thanks to both you and An for sending us this information.

We have a few questions about the public availability of information ... and let me first provide you with some background information to place my questions into context.

As you may expect we are meeting with our licensees to discuss what activities are to be undertaken, and by whom, in the USA as a result of the insights gained from the inspections and analyses of Doel 3 and Tihange 2. We have a meeting (a public meeting) scheduled on March 5 to this point and purpose. With this in mind, now my questions:

1. Have you any idea what information you will be making publically available on or before March 5? If we know this it will make it easier for us to prepare background briefing material that we may present at our meeting. I should also say that we will of course be careful to focus only on the technical information that is available ... and not comment in any way regarding regulatory or operational matters in Belgium.
2. So that our licensees can inform their activities it would be best if they could at some point have access to
 - o The detailed technical evaluations and data developed by Electrabel,
 - o The reports of the various review panels, and
 - o Some additional very detailed information (e.g., the inclination, location, and size of the various flaws found in Doel 3 and Tihange 2

If you have not already answered this questions in Item #1, have you any idea when these documents will be made publically available by the FANC? If they will not be made publically available, can you suggest a mechanism by which our licensees (acting through the Electric Power Research Institute, EPRI) could gain access to the information. For example, could you authorize us to pass the information we have onto EPRI? Or could Tractebel send it directly to EPRI?

We appreciate your help with these matters.

Best regards,

Mark

Mark Kirk
Senior Materials Engineer
NRC/RES/DE/CIB
mark.kirk@nrc.gov

From: VAN WONTERGHEM Frederik [<mailto:Frederik.VANWONTERGHEM@FANC.FGOV.BE>]

Sent: Friday, February 01, 2013 11:29 AM

To: adrien.thibault@asn.fr; WEYN Andre; bernhard.elsing; Nove, Carol; drozanski@vincotte.be; erik.zeelenberg@lr.org; gerard.cattiaux@irsn.fr; hvandriessche@vincotte.be; janssens@nrg.eu; kck@kins.re.kr; martin.rvf@ensi.ch; matsumoto-mitsuyoshi@ines.go.jp; MENDOZA GOMEZ CARLOS; Michel.bleth@ec.europa.eu; Olavi.Valkeajarvi@stuk.fi; Richard.Sundberg@ssm.se; Hardies, Robert; Tony.Wooldridge; vincent.deledicque@belv.be; A.Zeman@iaea.org; bernard.monnot@irsn.fr; fvanherck@vincotte.be; g.diego@ciemat.es; Gareth.Hopkin@hse.gsi.gov.uk; Poehler, Jeffrey; jesus.lg@ciemat.es; kanno-masanori@ines.go.jp; marc.deprez@belv.be; marc.pic@asn.fr; Peter.Ekstrom@ssm.se; Ralf.ahlstrand@ec.europa.eu; sebastien.crombez@asn.fr; Stephen.Druce@hse.gsi.gov.uk; Uwe.Jendrich@grs.de; ybkim@kins.re.kr; Bjorn.Brickstad@ssm.se; bsf@csn.es; car@csn.es; Daniel.kjellin@ssm.se; francois.balestreri@irsn.fr; Stevens, Gary; guy.roussel@Belv.be; hasegawa-kunio@ines.go.jp; Igor.simonovski@ec.europa.eu; John.Highton@hse.gsi.gov.uk; Juergen.Sievers@grs.de; KI-Sig.KANG@iaea.org; Klaus.Germerdonk@ensi.ch; laurent.streibig@asn.fr; Lutz.lindhorst@ilent.nl; Nancy.SALGADO@oecd.org; sangmin.lee@kins.re.kr; Benolt.ZERGER@ec.europa.eu; daniel.marloye@belv.be; Frank.Michel@grs.de; Martti.Vilpas@stuk.fi; petteri.tilppana@stuk.fi; pierre.briegleb@belv.be; simon.hoebeek@belv.be; tomita-kazuhide@ines.go.jp; Dirk Vandepitte; William D'haeseleer; jvereeck@vub.ac.be; michel.giot@uclouvain.be; mscibett@sckcen.be; rchaouad@sckcen.be; thomas.pardoen@uclouvain.be; Ludovic Noels; rudi.denys@ugent.be; Tim Williams; Martens Benedikt; helmut.schulz.krtm@t-online.de; andre.pineau@mines-paristech.fr; Kim.Wallin@vtt.fi; stvims@ims.bas.bg; ki-sig.kang@iaea.org; Alejandro.HUERTA@oecd.org; Labeau Pierre-Etienne; Kirk, Mark; benolt.deboeck@belv.be; C.Hogwerf@mineleni.nl

Cc: TOMBUYES Beatrice; WERTELAERS An; BENS Jan; SCHRAUBEN Manfred; OULIDDREN Kamreddine; POULEUR Yvan; FAIDHERBE Céline

Subject: Doel 3- Tihange 2 RPV Issue: FANC Provisional Evaluation Report

Dear all,

Just some additional information: The technical information note mentioned in the previous mail can be found via the follow link: <http://www.fanc.fgov.be/GED/00000000/3300/3379.pdf>

This 5-page document, which can be freely distributed, is also to be found in attachment.

Best regards,

Frederik Van Wouterghem

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From: WERTELAERS An

Sent: 01 February 2013 17:08

To: 'adrien.thibault@asn.fr'; WEYN Andre; 'bernhard.elsing'; 'Carol.Nove@nrc.gov'; 'drozanski@vincotte.be';

'erik.zeelenberg@lr.org'; 'gerard.cattiaux@irsn.fr'; 'hvandriessche@vincotte.be'; 'janssens@nrg.eu'; 'kck@kins.re.kr'; 'martin.ryf@ensi.ch'; 'matsumoto-mitsuyoshi@jnes.go.jp'; 'MENDOZA GOMEZ CARLOS'; 'Michel.bieth@ec.europa.eu'; 'Olavi.Valkeajarvi@stuk.fi'; 'Richard.Sundberg@ssm.se'; 'Robert.Hardies@nrc.gov'; 'Tony.Wooldridge'; 'vincent.deledicque@belv.be'; 'A.Zeman@iaea.org'; TOMBUYES Beatrice; 'bernard.monnot@irsn.fr'; 'fvanherck@vincotte.be'; 'g.diego@ciemat.es'; 'Gareth.Hopkin@hse.gsi.gov.uk'; 'Jeffrey.Poehler@nrc.gov'; 'jesus.lg@ciemat.es'; 'kanno-masanori@jnes.go.jp'; 'marc.deprez@belv.be'; 'marc.pic@asn.fr'; 'Peter.Ekstrom@ssm.se'; 'Ralf.ahstrand@ec.europa.eu'; 'sebastien.crombez@asn.fr'; 'Stephen.Druce@hse.gsi.gov.uk'; 'Uwe.Jendrich@grs.de'; 'ybkim@kins.re.kr'; 'Bjorn.Brickstad@ssm.se'; 'bsf@csn.es'; 'car@csn.es'; 'Daniel.kjellin@ssm.se'; 'francois.balestreri@irsn.fr'; 'Gary.Stevens@nrc.gov'; 'guy.roussel@Belv.be'; 'hasegawa-kunio@jnes.go.jp'; 'igor.simonovski@ec.europa.eu'; 'John.Highton@hse.gsi.gov.uk'; 'Juergen.Sievers@grs.de'; OULIDDREN Kamreddine; 'Ki-Sig.KANG@iaea.org'; 'Klaus.Germerdonk@ensi.ch'; 'laurent.streibig@asn.fr'; 'Lutz.lindhorst@ilent.nl'; 'Nancy.SALGADO@oecd.org'; 'sangmin.lee@kins.re.kr'; 'Benolt.ZERGER@ec.europa.eu'; CREEMERS Joris; 'daniel.marloye@belv.be'; 'Frank.Michel@grs.de'; 'Martti.Vilpas@stuk.fi'; 'petteri.tilppana@stuk.fi'; 'pierre.briegleb@belv.be'; SCHRAUBEN Manfred; 'simon.hoebeeck@belv.be'; 'tomita-kazuhide@jnes.go.jp'; WERTELAERS An; BENS Jan; 'Dirk Vandeputte'; 'William D'haeseleer'; jvereck@vub.ac.be; micheel.glot@uclouvain.be; mscibett@sckcen.be; rchauad@sckcen.be; thomas.pardoen@uclouvain.be; Ludovic Noels; rudl.denys@ugent.be; Tim Williams; 'Martens Benedikt'; helmut.schulz.krtt@t-online.de; andre.pineau@mines-paristech.fr; Kim.Wallin@vtt.fi; stvlms@ims.bas.bg; ki-sig.kang@iaea.org; Alejandro.HUERTA@oecd.org; 'Labeau Pierre-Etienne'; Mark.Kirk@nrc.gov; 'Benoit DE BOECK'; TOMBUYES Beatrice; OULIDDREN Kamreddine

Cc: FAIDHERBE Céline

Subject: Doel 3 - Tihange 2 RPV: FANC Provisional Evaluation Report

Importance: High

Dear all,

On behalf of the Federal Agency for Nuclear Control I would like to inform you that the FANC has issued a Provisional Evaluation Report on the Doel 3 and Tihange 2 RPV issue. In attachment you can find a copy of this report.

The main conclusions of this report are as follows:

The Federal Agency for Nuclear Control received on 5 December 2012 two Safety Case reports on the flaw indications found in the Doel 3 and Tihange 2 reactor pressure vessels.

Based on the data provided these Safety Case Reports and the conclusions released by Bel V, AIB-Vincotte and the national and international experts groups, the Federal Agency for Nuclear Control has drawn its conclusions which can be found in the Provisional Evaluation Report in attachment.

Along the assessment process, a number of open issues were identified about the suitability of the in-service inspection technique, the possible evolution of the flaws during future operation, the characterization of the material properties, and the structural integrity of the reactor pressure vessels under penalizing loadings.

In the current state of knowledge and given the available data, these open issues do not represent conditions that require a definitive shutdown of the Doel 3 and Tihange 2 reactor units.

However, these open issues lead to some uncertainties that might reduce the conservatism of the licensee's safety demonstration and hence impair the level of confidence in the safe operability of the reactor units in question. As a consequence, the Federal Agency for Nuclear Control considers that, in the current state, the Doel 3 and Tihange 2 reactor units may only restart after the requirements listed in the present Evaluation Report are fulfilled by the licensee.

The licensee shall therefore elaborate an action plan to meet those requirements, including a methodology and associated acceptance criteria where applicable. This action plan shall be approved by the Belgian nuclear safety authority.

Once the licensee has implemented its action plan, the FANC, together with Bel V and AIB-Vincotte, will evaluate whether all the safety concerns at the origin of the requirements are solved and whether the related reservations can be lifted. On this basis, the FANC will motivate its decision about the possible restart of the Doel 3 and Tihange 2 reactor units in a subsequent final evaluation report.

As the FANC Provisional Evaluation Report has not yet been made public, we would like you to ask to treat this document with the necessary confidentiality. This means further distribution or disclosure of this report is not allowed to third parties without approval of the FANC. However, on the FANC website (www.fanc.fgov.be) a summary of this report ("technical information note") has been made public today, which can be freely distributed.

Best regards

An

FANC FCN

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