

23

**Hardies, Robert**

**From:** VAN WONTERGHEM Frederik [Frederik.VANWONTERGHEM@FANC.FGOV.BE]  
**Sent:** Tuesday, October 09, 2012 10:22 AM  
**To:** adrien.thibault@asn.fr; 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.ryf@ensi.ch; matsumoto-mitsuyoshi@jnes.go.jp; MENDOZA GOMEZ CARLOS; Michel.bieth@ec.europa.eu; Olavi.Valkeajarvi@stuk.fi; Richard.Sundberg@ssm.se; Tony.Wooldridge; vincent.deledicque@belv.be; Hardies, Robert  
**Cc:** awayn@vincotte.be; WERTELAERS An; TOMBUYES Beatrice; OULIDDREN Kamreddine; pierre.briegleb@belv.be  
**Subject:** RE: Doel 3 RPV Issue - Details on October 16th meeting - WG1: Non-Destructive Examination Techniques  
**Attachments:** CNT-KCD\_4NT\_17868\_000\_01\_TOTALDOC.pdf

PART 3/3 of the documents

**Van:** VAN WONTERGHEM Frederik

**Verzonden:** 09 October 2012 16:22

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**CC:** awayn@vincotte.be; WERTELAERS An; TOMBUYES Beatrice; OULIDDREN Kamreddine; pierre.briegleb@belv.be  
**Onderwerp:** RE: Doel 3 RPV Issue - Details on October 16th meeting - WG1: Non-Destructive Examination Techniques

PART 2/3 of the documents

**Van:** VAN WONTERGHEM Frederik

**Verzonden:** 09 October 2012 16:20

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**Onderwerp:** Doel 3 RPV Issue - Details on October 16th meeting - WG1: Non-Destructive Examination Techniques

Dear Member of WG 1,

We are pleased to welcome you as member of WG 1 and hope that the collaboration may be useful for all participants. We sent you last week (02/10/2012) already some details about the October 16th meeting in Brussels. Here below you find more specificities and the (preliminary) agenda for the WG 1 meeting on Non-Destructive Examination Techniques

**Preliminary Agenda for the WG1 meeting sessions**

1. Welcome and presentation of all attendees.
2. Objectives.
3. Overview of the findings in the reactor shells Doel 3 & Tihange 2.
4. Experiences of the WG members with respect to the observed phenomena : Round table discussion of results of inspections performed (or planned inspections) on other reactor vessels to search for these kinds of phenomena.
5. Discussion on the following documents, made available by the Licensee, and which are related to the Reactor Vessel Inspection of the Nuclear Power Plants Doel 3 (KCD3) and Tihange 2 (CNT2):

B/175

Technical Note CNT-KCD/4NT/0017885/000/01 : 1.0.1 - Strategy on Ultrasonic Examinations (LBE0267719)  
Technical Note CNT-KCD/4NT/0017748/001/00 : 1.1.2 - Ultrasonic examination of core shells for underclad cracking synthesis report Doel 3  
Technical Note CNT-KCD/4NT/0017787/001/01 : 1.1.5 - Ultrasonic examination for laminar flaws - Synthesis report Doel 3  
Technical Note CNT-KCD/4NT/0017887/000/01 : 1.4.1 - Assessment of UT Inspection Sensitivity (LBE02612128)  
Technical Note CNT-KCD/4NT/0017886/000/01 : 1.6.1 - Doel 3 - RPV Transition ring C0064 - Consistency of UT results (LBE02676489)

6. Discussion on extracts (related to UT Examination) of other documents made available by the Licensee:

Technical Note CNT-KCD/4NT/0017817/001/01 : 3.0.1 - Strategy of materials investigations  
Technical Note CNT-KCD/4NT/0017868/000/01 : 3.1.1 - Note AREVA on the metallurgical origin of the indication (PEEM-F 12.1190)  
Technical Note CNT-KCD/4NT/0017740/000/04 : 3.2.4 - Specification for the operations and tests to be performed on a small block from the steam generator shell containing flaws

7. Specific Topics/Questions for discussion:

- > Assessment of the inspection technique and acceptance criteria used in the fabrication.
- > Assessment of the results of the 2012 in-service inspection.
- > Is it plausible that the flaw indications found during the in-service inspection in 2012, have been declared acceptable at the manufacturing stage ?
- > May the observed flaw indications come from other degradation mechanisms than the supposed hydrogen flaking ?
- > Qualification of the inspection procedure used in 2012 for detecting and characterizing the flaws of the assumed degradation type.
- > Does the applied UT allow to detect interconnections between flaw indications in the thickness direction ?
- > Are additional UT or other NDE examinations required to increase the confidence in the measurement results ?

8. Other topics: to be proposed by the WG members.

**Available documentation**

We received a number of documents from the Licensee (Electrabel) of which the ones listed in points 5 and 6 of the agenda are of importance to our working group.

The WG members are invited to review the referenced Technical Notes (see points 5 and 6 above) before the meeting and to send their preliminary comments, if any, to the Technical Secretary.

All these documents are included in attachment. Taking into account the total size of these documents, these documents are being sent to you in several emails.

In addition you will, by a separate email, receive shortly information on how to access all these (and future) documents on a specific FANC-server (using a specific login and password).

Two remarks on these documents:

- Some of these documents contain preliminary information (indicated as "PRL" on the bottom of the cover page instead of "FIN" or final). This means that not all the information on this topic is currently available and the licensee expects to write a new (final) version of this document as soon as additional information becomes available.
- Most of the documents are categorized as "Limited Distribution" (in Dutch: "Beperkte verspreiding", in French: "Diffusion Restreinte"). This means that these documents are considered confidential and that further distribution or disclosure of these documents is not allowed to third parties without the prior, written consent of the party which provided the information. At the beginning of the working meeting of October 16<sup>th</sup> the confidentiality modalities related to documents will be explained further in detail.

We are looking forward to meet you in Brussels next week.

Kind Regards,

Frederik Van Wonerghem (Technical Secretary WG1)  
On behalf of André Weyn (chairman WG1)

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