From: <Tony_Banks@Dom.com>
To: "Nitin Patel" <NXP1@nrc.gov>
Date: 6/8/2006 3:14:12 PM
Subject: Re: References--RAIs 4 AND 6 of RAI Letter dated 5/10/2006

Nitin - attached are the relevant pages from GE correspondence referenced in Dominion's May 24, 2006 responses to NRC's May 10, 2006 RAIs 4 and 6. Content from GEDO letters -0014 and -0026 provide information for RAI 4. Content from GEDO letter -0020 provides information for RAI 6. (This is the same information that was provided in the 5/24/06 response.)

Joe and I will follow up this transmittal with a letter.

Please let me know if you have any questions - thank you.

Tony Banks, MPH, CHMM
Dominion
ESP/COL Project
Project Lead - Environmental
804/273-2170

(See attached file: 060806 GEDO-SR5-2006-0026-ESBWR_EAB Dose_tb.pdf)(See attached file: 060806 GEDO-SR5-2006-0014-ESBWR_LOCA_Values_Report_tb.pdf) (See attached file: 060806 GEDO-SR5-2006-0020-ESBWR Source Term based on MAAP runs_tb.pdf)

CC: "Jack Cushing" <JXC9@nrc.gov>, <Joseph_Hegner@Dom.com>, <rlbaker@bechtel.com>, "Kingston, Rick E. (GE Infra, Energy)" <Rick.Kingston@ge.com>, <Tony_Banks@Dom.com>

Mail Envelope Properties (448876F5.0F5 : 22 : 61685)

Subject: Re: References--RAIs 4 AND 6 of RAI Letter dated 5/10/2006
Creation Date 6/8/2006 3:13:06 PM
From: <Tony_Banks@Dom.com>

Created By: Tony_Banks@Dom.com

Recipients
nrc.gov
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Files	Size	Date & Time
MESSAGE	1601	6/8/2006 3:13:06 PM
060806 GEDO-SR5-2006-0026-ESBWR_EAB Dose_tb.pdf	93518	
060806 GEDO-SR5-2006-0014-ESBWR_LOCA_Values_Report_tb.pdf	110488	
060806 GEDO-SR5-2006-0020-ESBWR Source Term based on MAAP runs_tb.pdf	105872	
Mime.822	428118	

Options
Expiration Date: None
Priority: Standard
ReplyRequested: No

Return Notification: None

Concealed Subject: No
Security: Standard

GE Nuclear Energy	GE-NE-0000-0054-0400			
Title: Dominion Requested Information			Originator: E. Kirstein	NACoE
			DRF Number: 0000-0053-9734	
			DRF Section #: 0000-0054-0400	
Verified	Final	GE/GNF External	Date: 5/10/06	Sheet 1 of 2

Dominion requested item #1:

For LOCA, we need the 2-hour window that results in the highest EAB dose [example 1 to 3 hours] along with the releases that would occur during this 2-hour window.

GE Response:

Although the maximum LOCA EAB dose occurs from 2.6 to 4.6 hours, it has been determined that the EAB dose from 2.0 to 4.0 hours is within 1% of the maximum EAB dose. Please use the 2- and 4-hour values from Table 1 of the attachment (file *ESBWR_LOCA_Values_Report* in the ProjectNet *Dominion - Common* folder) to letter GEDO-SR5-2006-0014.

Dominion requested item #2:

For Failure of Small Lines Containing Primary Coolant Outside Containment, we need to understand how GE computed the EAB dose. In the DCD for ESBWR was this dose computed for 8 hours as suggested by Bechtel in their e-mail below? If that is the case, does GE plan to modify the DCD to provide a 2-hour EAB dose for this accident? We would then need the revised dose and associated releases for the worst 2-hour window for this accident.

GE Response:

The analysis for this accident assumes a single atmospheric dispersion factor (X/Q) for both the EAB and LPZ doses. The dose for the duration of the event was determined to be 0.7 rem TEDE in Table 15.4-19 of the DCD. Since the EAB dose is calculated for the worst 2-hour window, the EAB would be less than 0.7 rem TEDE. Stating an EAB dose of 0.7 rem TEDE is conservative. GE does not intend to modify the DCD to provide a 2-hour EAB dose for this accident.

Dominion requested item #3:

For Fuel Handling Accident, we need to understand why the releases do not seem compatible with the calculated doses and we will need revised values to provide to NRC.

GE Response:

The values in DCD Table 15.4-3 need to be adjusted by applying the gap release fraction. The correct environmental release values for the FHA are provided in the table below:

Isotope	Activity (MBq)
Kr-85	3.0E+07
Kr-85m	8.2E+06
Kr-87	1.3E+03
Kr-88	2.6E+06
I-131	8.9E+06
I-132	7.2E+06
I-133	5.7E+06
I-134	3.1E-01
I-135	9.4E+05
Xe-133	2.4E+09
Xe-135	6.3E+08

DCD Table 15.4-3 will be revised to reflect these values in the next revision of the DCD.