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NRR/OCM

Tift, Doug

From: Tift, Doug
Sent: Wednesday, November 25, 2009 8:04 AM
To: Trocine, Leigh
Subject: RE: FYI from Acting DEDR -- FW: STATUS FYI -- Response to PA State Liaison -- ??s on 11/21 THREE MILE ISLAND Containment Contamination Event

Leigh,

We've also revised the date in question 2. The date should be 11/21. The corrected version is attached.

-Doug



NRC Response to Governor Rende...

From: Trocine, Leigh
Sent: Wednesday, November 25, 2009 7:46 AM
To: Tift, Doug
Subject: FYI from Acting DEDR -- FW: STATUS FYI -- Response to PA State Liaison -- ??s on 11/21 THREE MILE ISLAND Containment Contamination Event

NRR

From: Johnson, Michael
Sent: Wednesday, November 25, 2009 7:39 AM
To: Trocine, Leigh
Subject: RE: STATUS FYI -- Response to PA State Liaison -- ??s on 11/21 THREE MILE ISLAND Containment Contamination Event

OCM
NRR
[Signature]

millirem or milirems? I thought millirem was plural. just need to be consistent.

From: Trocine, Leigh
Sent: Wednesday, November 25, 2009 7:33 AM
To: Tift, Doug
Cc: Clifford, James; Jackson, Donald; Roberts, Darrell; Wilson, Peter; Barkley, Richard; Barber, Scott; Collins, Sam; Virgilio, Martin; Johnson, Michael; Mallett, Bruce; Orders, William; Andersen, James
Subject: STATUS FYI -- Response to PA State Liaison -- ??s on 11/21 THREE MILE ISLAND Containment Contamination Event

NRR

Hi Doug,

With regard to the questions that were generated as a result of the 11/23 conference call between Chairman Jaczko and the Governor of PA (Ed Rendell), the latest draft response (attached below for the folks on the cc list) was provided to the Chairman's office COB yesterday, and we're expecting to hear back from them before or around lunch time today. I'll plan to let you know when it's okay to email the response to the Governor's SLO (Dave Allard) as soon as I hear back from Chairman Jaczko's office.

E/50

<< File: NRC Response to Governor Rendell - Rev 1.doc >>

Cheers,
Leigh

From: Marshall, Michael
Sent: Wednesday, November 25, 2009 6:33 AM
To: Trocine, Leigh
Cc: Hipschman, Thomas
Subject: FYI: Response to PA State Liaison

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Leigh,

~~I will contact you before or around lunch time.~~

Michael L. Marshall, Jr.
Policy Advisor for Reactors
Office of the Chairman
U.S. Nuclear Regulatory Commission

Phone: 301-415-1750
Email: michael.marshall@nrc.gov

NRC Response to Governor Rendell

Dave,

Please find the following responses to Governor Rendell's questions during his conversation with Chairman Jaczko on November 23, 2009. Please forward the responses to the governor. If the governor has any additional questions, I can be contacted at 610-337-6918.

Doug Tiff
Regional State Liaison Officer, NRC Region 1
Office: 610-337-6918
Cell: 484-919-2198

1. What standard did Exelon use to determine that they did not have to notify the NRC?

At the time of the TMI Contamination Event, no formal NRC reporting criteria (contained in Title 10 of the Code of Federal Regulations Parts 20 or 50) were exceeded due to the low levels of radioactivity involved.

The NRC was officially notified by a 10 CFR 50.72 notification at 1:13 a.m., November 22 for the TMI Contamination Event. This notification was required under the four hour reporting criteria for non-emergency events (10CFR50.72(b)(2)(B)(xi)) because Exelon, the licensee, notified another government agency (the Pennsylvania Emergency Management Agency(PEMA)) of the TMI contamination event. This formal notification to PEMA occurred at 10:45 p.m., on November 21, 2009.

All communication that occurred between the event time and this formal notification was informal and not required by NRC regulation.

2. How many contamination events occur on average per year?

NRC does not normally track or maintain records involving individual personnel contamination events unless the occurrence results in contamination that cannot be removed and consequently contributes to the overall exposure assessment of the individual. Typically, personnel contamination is easily removed and does not result in any personnel exposure. Notwithstanding, the nuclear industry monitors such occurrences as one of its indicators of the quality of radiological control implementation, and plant cleanliness relative to the control of loose surface contamination.

To this end, Exelon benchmarked 11 other steam generator replacement projects that were performed and determined, on average, that 127 personnel contamination events occurred per steam generator replacement project. (One personnel contamination event means that one individual was found contaminated above a very low established threshold.) Exelon's goal was to complete the current project with no more than 95 personnel contamination events. Prior to the November 21, 2009 occurrence, there were 30 personnel contamination events, all involving low levels of radioactivity. The November 21, 2009, event resulted in an additional 17 personnel contamination events, for a total of 47.

3. How many workers were exposed in each event and how many workers were exposed in 2008?

NRC does not maintain any records of individual personnel contamination events. While licensees make efforts to minimize such instances by use of protective clothing, personnel contamination occurrences are not unusual and are typically resolved by decontamination of the affected individual and typically result in no measurable radiation dose to the individual.

The NRC monitors events that result in individuals having intakes of radioactive material due to inhalation or ingestion. Licensees are required to assess such occurrences and report the assigned occupational exposure that was credited to the affected individual for such events. In 2008, 18 NRC-licensed nuclear power reactor facilities reported 270 individual occurrences of measurable intakes of radioactive materials. The average exposure was about 17 millirems. None of these occurrences involved Three Mile Island.

4. How many workers reached 2000 millirems/year in 2008?

The NRC regulatory requirement relative to occupational exposure is 5,000 millirems/year. Exelon, including Three Mile Island, established an administrative limit of 2,000 millirems/year to ensure that the regulatory limit would not be exceeded.

In 2008, only one NRC-licensed nuclear power facility had personnel accumulate occupational whole body exposure that exceeded 2000 millirems. At Three Mile Island, there were no personnel that exceeded 2,000 millirems in 2008. Most Three Mile Island personnel received exposures of less than 100 millirems; two individuals ranged between 100 and 250 millirems for that year, and none received a dose above 250 millirems.

For all NRC-licensed nuclear power reactor facilities in 2008, 169,324 individuals were monitored for radiation, and 79,460 individuals had measurable exposure. The average personnel exposure was about 200 millirems.