From: Brown, Michael
Sent: Tuesday, November 24, 2009 10:42 AM
To: Barber, Scott; Brand, Javier; Spindler, David
Subject: FW: FYI - Update on TMI Loss Of Contamination Control Event

Here's Pete's email, the numbers seem to have changed slightly.

-----Original Message-----
From: Bamford, Peter
Sent: Monday, November 23, 2009 5:49 PM
To: Chernoff, Harold; Nelson, Robert; Giitter, Joseph
Cc: NRR_DIRS_IOEB Distribution; Miller, Ed
Subject: FW: FYI - Update on TMI Loss Of Contamination Control Event

Here is this afternoon's update on the TMI contamination control event from the TMI residents and region based radiological inspector (Ron Nimitz).

The licensee has concluded that the apparent cause of the event was a change in the containment ventilation lineup in conjunction with some open RCS piping penetrations. Now that the apparent cause has been established the residents will be monitoring the corrective actions put in place by the licensee to prevent recurrence.

Update to worker dose implications:

At the time of the event, the licensee believes a total of approximately 175 personnel were working in containment. All of these personnel were checked for contamination via personnel monitoring. There were three individuals reported to be outside the containment construction cut on the platform at the time of the event. Neither of these individuals were identified as contaminated. Of the 175 personnel, 145 personnel could not pass the gamma sensitive personnel contamination monitoring indicating some type of either external or internal contamination. Of these 145 personnel exactly 17 personnel were determined, based on external frisking to have personnel external contamination. These personnel were decontaminated and NO personnel left site with external contamination. The contamination did not cause any measureable external dose. Of the 145 total, 19 were originally determined to have some measureable internal contamination with doses calculated as listed below (1770 11/22). As a result of recounting and evaluation, as of 11/23, the licensee believes only 7 personnel indicate a dose greater than 10 millirem as presented below. The licensee is continuing to further evaluate these. The licensee formally authorized those individuals to leave site that alarmed the personnel contamination monitor with some detectable intake.

Time/Date	> 10mr	10-20mr	20-30mr	30-40mr	maximum
1700/ 11/22	19	16	2	1	38.4 millirem
1600/11/23	7	5	2	0	25.7 millirem

Update to Environmental dose calculation:

Base on evaluation of flow rates and air samples collected, the licensee has calculated that the release on 11/21 resulted in a dose of 0.7% of annual limit of 15 mrem per year and 1.5% of the quarterly limit of 7.5 mrem per year. The total estimated dose to date from airborne releases at TMI is 0.138 mrem.

Current status of "A" SG

E|27

NRR

The "A" SG is in the process of being downended (~12 hour evolution). It has been fully re-encapsulated to ensure that there is no external contamination present when it exits containment. The "A" SG could exit containment tomorrow.

Peter Bamford
NRR/DORL/LPL 1-2
Limerick & TMI-1 Project Manager
301-415-2833

-----Original Message-----
From: Bamford, Peter
Sent: Monday, November 23, 2009 8:31 AM
To: Chernoff, Harold; Nelson, Robert; Giitter, Joseph
Cc: NRR_DIRS_IOEB Distribution
Subject: FYI - Update on TMI Loss Of Contamination Control Event

Here is this morning's update from the 0730 Call:

TMI still has not determined the root cause for the event. The two activities described in my email below are still the leading candidates.

The highest exposed individual has been determined to be between 30 and 40 mr. Thus the preliminary higher exposures listed below of 183 and 202 mr have been shown to be from incorrect calculations.

The "A" SG, which was in the process of being lifted when this event occurred, is still hanging vertically inside containment. It is being deconned/encapsulated and the licensee hopes to down-end it today onto the transfer mechanism that will eventually move it out through the SG opening. The downending process will end up with part of the SG poking out the hole in the containment wall.

The release calculation for the period of time where the containment was at positive pressure during the event yields a 0.04 mr release versus a 7.5 mr quarterly limit per the ODCM. As mentioned below, this is still less than 1% of the quarterly limit.

Peter Bamford
NRR/DORL/LPL 1-2
Limerick & TMI-1 Project Manager
301-415-2833

-----Original Message-----
From: Bamford, Peter
Sent: Monday, November 23, 2009 5:49 AM
To: NRR_DIRS_IOEB Distribution
Subject: FW: Update on the TMI event

This is information available as of Sunday evening(11/22). I'll send an update Mon AM sometime around 0800.

Peter Bamford
NRR/DORL/LPL 1-2
Limerick & TMI-1 Project Manager
301-415-2833

-----Original Message-----
From: Bamford, Peter
Sent: Sunday, November 22, 2009 7:09 PM

To: Chernoff, Harold
Cc: Nelson, Robert; Giitter, Joseph
Subject: FW: Update on the TMI event

Harold, I participated in a conference call today (Sunday 11/22) at 4:30 PM sponsored by the Region at which they provided an update to this weekend's activities at TMI-1. Here is a summary:

Approximately at 4 PM Saturday 11/21 TMI had an event involving loss of contamination control inside containment. At the time the reactor was defueled with a hole cut in the containment wall to support the ongoing SG replacement outage. The licensee is not sure at this time what activity inside containment led to the problem. Their investigation is focusing on two activities (1) "A" piping loop decontamination activities or (2) some work on a drain line on the B" SG.

At the time of the event 175 workers were inside containment. Of these workers 151 people were selected for detailed monitoring based on nasal smears and portal monitor readings. Of the 151, about 20 people have potentially received doses greater than 10 mR. Two workers initially haven calculated doses of 183 and 202 mR. However the region feels that these estimates may be in error and are being re-evaluated. The next highest dose to a worker was 38 mR. The region appeared confident the the 38 mR person would end up being the highest exposure for this event. No site worker left the site with external contamination. Airborne contamination levels inside containment have been restored to pre-event levels and cleanup of containment surfaces is in progress. The tarp that was covering the containment opening was contaminated on its inside surface and is in the process of being replaced.

With the open equipment hatch and the SG opening there was the potential for a release outside of containment. At the time of the event a slight positive pressure existed in containment. This has now been corrected to what it should be, ie a slightly negative pressure. Based on readings from radiation monitors present at the SG opening and the duration of the positive pressure, the estimates of release levels are still less than one percent of the quarterly ODCM limit.

This event has generated a significant amount of media interest. Regional OPA and state liason officers have taken inquiries from multiple radio, print media and TV stations. They have performed a media briefing at TMI at 2 PM today and have conducted an interview with CNN. Good Morning America is also interested and requested an interview with the Chariman tomorrow (Monday) morning. The region offered them Sam Collins or possibly the EDO representing the NRC. (The Chariman's office and the acting DEDO were represented on the 4:30 pm call today.) GMA said they may decide to interview just an Exelon manager (possibly Bill Noll the Site VP) if they cannot get the Chariman. The GMA interview was left to be decided after the phone call. If it occurs, it sounded to me that it would likely take place in a Philadelphia studio with Sam representing the NRC. The region feels the local reporting has been balanced and factual with no fear-mongering.

The PA governor's office has been notified and they understand this is a low level event. They apparently have some concerns about notification timeliness. The PA state was notified about 9:30 PM last night (event time was 4 PM). Based on the PA state notification, an event report was filed with the HOO (event number 45514). This event was far below levels that would warrant an unusual event declaration.

Activities for the remainder of the evening were to sort out the GMA interview and respond to further media requests (regional OPA lead). The rest of the regional activities are going to stand down at this time.

I'll update you in the morning after the 0730 call.

Pete

From: Lew, David
Sent: Sunday, November 22, 2009 10:00 AM
To: Lew, David; Collins, Sam; Spindler, David; Hayden, Elizabeth; Powell, Amy; Grobe, Jack; Johnson, Michael; Roberts, Darrell; Mallett, Bruce; Leeds, Eric; Trocine, Leigh

Cc: Screnci, Diane; McNamara, Nancy; McKinley, Raymond; McDermott, Brian; White, John; Newport, Christopher; Bamford, Peter; Barber, Scott; HOO Hoc; Kern, David; Brand, Javier; Bellamy, Ronald
Subject: RE: Update on the TMI event

We are revising the time for an internal briefing. Region I will provide an update brief via the HOO at 4:30 pm, after PAO and staff have met with the media. Anyone interested can particpate by calling the HOO.

Separately, one of our SPEs (Scott Barber) will being working on talking points to support the media outreach at 2 pm. Nancy McNamara with also be coming into the office to support communication needs for OCA.

-----Original Message-----
From: Lew, David
Sent: Sunday, November 22, 2009 9:47 AM
To: Collins, Sam; Spindler, David; Hayden, Elizabeth; Powell, Amy; Grobe, Jack; Johnson, Michael; Roberts, Darrell
Cc: Screnci, Diane; McNamara, Nancy; McKinley, Raymond; McDermott, Brian; White, John; Newport, Christopher; Bamford, Peter; Barber, Scott; HOO Hoc; Kern, David; Brand, Javier; Bellamy, Ronald
Subject: Update on the TMI event

The HOO has established a bridge for Region I to facilitate internal communications and coordination in response to the anticipated media issues. The staff should provide information via this bridge by calling the HOO and asking to be put on the TMI bridge. We will be looking to set up a general briefing for internal stakeholders later this morning (expected around 11 am).

Update on media interest:
1. Numerous calls last night from external stakeholders were address but the HOO and Region I PAO; however, few calls were received after 2 am this morning.
2. The Region I PAO (Diane Screnci), a DRS Branch Chief (John White) and a senior Health Physicists (Ron Nimitz) will be on site today. Tentatively, they will meet with the media at 2 pm at the training center to answer questions.
3. The staff continues to monitor media interest on the web.
4. Exelon public affairs will been meeting with the media this morning.

Update on the plant
1. The licensee has completed the whole body count of about 150 workers in containment. 20 of these workers had estimated between 10 mrem and 36 mrem. 5 of these workers initially show higher doses, but the results are suspect and are being evaluated.

2. The licensee continues to maintain a tarp on the containment hole for the SG replacement.
3. Two potential causes of the airborne contamination event are being reviewed. The first is associated with welding activities on a small plug inside the skirt on the bottom of the B SG, during which the associated HEPA filter which is powered via an extension cord was found tripped. The other is pipe decontamination and preparation activities associated with the A cold leg, which they identified high contamination on the outside of a wet vac located near the work.
4. Both these two activities are located in the D ring. The license has maintained a hold on work in these areas, as they continue to assess the cause and clean up areas of high containment.