

- RUI
RUI

From: Duane Karjala
 To: Ryan Alexander
 Date: 04/14/2004 02:04 PM
 Subject: Re: Update on Westinghouse Dose-rate Alarm Incident

Ryan,

Ryan

Ex 5

>>> Duane Karjala 04/14/2004 10:41:38 AM >>>

[Redacted content]

Ex 5

Information in this record was deleted
 in accordance with the Freedom of Information
 Act, exemptions 5

FOIA/PA-2004-0282 L-16

Duane

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Evaluation of workers not receiving electronic dosimeter alarms while working in dose rate fields higher than the alarm setpoint.

Condition

On 4/14/2004 at approximately 0340 a Westinghouse worker reached into a dose rate field that exceeded the alarm setpoint on his electronic dosimeter. (RADOS) The entry only lasted several seconds. The worker was installing equipment in the B S/G to support eddy-current testing. Neither the worker nor the RP technician covering the job heard an alarm. Additionally, the Televue transmitting dosimeter (MGP) did not send an alarm signal to the Televue monitor that the RPT was watching. The fact that the ED had registered a dose rate greater than the alarm setpoint was noticed upon review of entry/exits in the access control software.

ACS was reviewed after another worker received a dose rate alarm on their RADOS ED while installing equipment in the B S/G to support eddy-current testing. Both the RPT, and the worker heard this alarm and responded appropriately. When the second worker was noted to have a dose rate alarm the Televue monitor read 1500 mR/hr. This alarm occurred at approximately 0416.

The alarm setpoint for both workers was 2500 mR/hr.

	RADOS EPD Max Rate	MGP ED Max Rate
Worker 1	2841 mR/hr	3870 mR/hr
Worker 2	2840 mR/hr	3100 mR/hr

Evaluation

The following actions were taken:

- The RADOS ED (981647) was satisfactorily tested to make sure that the speaker works. The ED also showed no errors in the manual reader.
- The Westinghouse worker was questioned and reported that they did not hear an ED alarm.
- A transmitting dosimeter was tested in the S/G channelhead to ensure radio contact was being maintained. This was completed satisfactorily. The lowest signal strength seen was eight on a scale of one to fifteen. Dose rates seen by the dosimeter were 4800-5600 mR/hr inside the S/G channelhead.

- The MGP vendor was contacted. He suggested that we check the configuration and threshold of the teledosimeters. This was completed with no issues noted. The vendor was asked if it was possible that the alarm condition could have come and gone so quickly that it would not have been transmitted. He didn't know for sure but said that you would see a dose rate spike on the histogram. A dose rate spike was noted on the histogram corresponding to the alarm condition from 03:39:41 to 03:39:45. Max dose rate seen was 3870 mR/hr.

Conclusion

The Westinghouse workers were making hand entries into the S/G channelhead that only lasted several seconds. The likely reason that no alarm was received on either the RADOS ED or the MGP ED was that the entry time was so short that although both electronic dosimeters registered dose rates higher than the alarm setpoint they had been removed from the dose field before the alarm activated.

The primary means of dose control for ECT of the S/G's is timekeeping. The Televue system is a backup and aid to the job coverage RPT. The RWP was terminated and a new RWP written with higher dose rate alarm setpoints that meet the actual conditions in the S/G.

Neither worker received a dose alarm or exceeded the dose allowed by the RWP.

Permission to proceed with the job was obtained from the RPM and Engineering Director at approximately 2100, 4/14/2004.