

CHANGES TO THE OFFSITE DOSE CALCULATION MANUAL
AND
PROCESS CONTROL MANUAL

No changes were made to the Offsite Dose Calculation Manual or the Process Control Program during the first six months of 1990.

ATTACHMENT 2

REVISED DESCRIPTION OF THE
UNPLANNED RELEASES
TO
UNRESTRICTED AREAS
DURING THE THIRD AND
FOURTH QUARTERS OF
1989

There were four unplanned releases during the second half of 1989:

1. On November 10, 1989, Arkansas Nuclear One, Unit 1 tripped, when an Instrument and Control Technician performing a surveillance test inadvertently grounded the power supply for the "B" reactor protection system cabinet creating a transient causing a high pressure reactor scram. During this trip the main steam safety valves lifted, releasing steam from the secondary plant system. The secondary system contains a small amount of tritium, some of which was released when the main steam safety valves lifted. This release produced a total body dose of 1.73×10^{-3} mrem which represents approximately $2.31 \times 10^{-2}\%$ of the Technical Specification 3.25.2.3 A.1) limit of 7.5 mrem per calendar quarter. No adverse consequences are expected.
2. On November 15, 1989, Arkansas Nuclear One, Unit 1 tripped when the inadvertent closure of a main feedwater isolation valve resulted in automatic actuation of the reactor protection system on high reactor coolant system pressure. During this trip the main steam safety valves lifted, releasing steam from the secondary plant system. The secondary system contains a small amount of tritium, some of which was released when the main steam safety valves lifted. This release produced a total body dose of 1.73×10^{-3} mrem which represents approximately $2.31 \times 10^{-2}\%$ of the Technical Specification 3.25.2.3 A.1) limit of 7.5 mrem per calendar quarter. No adverse consequences are expected.
3. On December 28, 1989, Arkansas Nuclear One, Unit 1, an automatic reactor trip and actuation of the Emergency Feedwater System occurred as a result of the loss of all main feedwater flow caused by the inadvertent tripping of a main feedwater pump. During this trip the main steam safety and the Emergency Feedwater Turbine Exhaust valves lifted to relieve system pressure, releasing steam from the secondary plant system. The secondary system contains a small amount of tritium that was released. This release produced a total body dose of 2.94×10^{-8} mrem. This is approximately $3.92 \times 10^{-7}\%$ of the Technical Specification 3.25.2.3 A.1) limit of 7.5 mrem per calendar quarter. No adverse consequences are expected.
4. On December 31, 1989, Arkansas Nuclear One, Unit 2, a reactor trip occurred when 'B' Steam Generator water level reached a high level setpoint, and the Reactor Protective System generated a reactor trip signal. During this trip, steam from the secondary plant system was released via the emergency feedwater turbine exhaust. The release contained tritium and produced a total body dose of 2.82×10^{-8} mrem. This is approximately $3.76 \times 10^{-7}\%$ of the Technical Specification 3.11.2.3a limit of 7.5 mrem per calendar quarter. No adverse consequences are expected.