GE Nuclear Energy

Morris Operation
General Electric Company
7555 E. Collins Rd., Morris, IL 60450
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February 12, 2003

Administrator, Region III
U.S. NRC Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

REF: SNM-2500

Dear Sir or Madam:

In compliance with 10CFR72.44(d)(3) and SNM-2500 license condition 8.2.1, this report documents our estimate of quantities of principal radionuclides released to the environment by the GE Morris Operation in 2002. This report also provides an estimate of the maximum potential dose to the pubic resulting from GE Morris Operation effluents.

The only particulate radionuclide present on the stack monitor filters was Cs-137. Gaseous radionuclides evaluated were H-3 and Kr-85. The quantity of tritium released is calculated by multiplying basin water evaporative losses by the average H-3 levels in the fuel basins. The amount of Kr-85 released is calculated by multiplying the concentration found in samples taken directly over the basin water by the air flow through the basin area.

COMPLY V1.6 (the EPA software program) was used to calculate the effective dose equivalent from the release of these radionuclides. The quantities released and the resultant maximum potential effective dose equivalent are shown in the following table.

Nuclide	Activity Discharged (Ci)
H-3	2.506417E-2
Kr-85	1.011871
Cs-137	8.042471E-7

Effective Dose Equivalent **4.3E-7 mrem/year** (COMPLY)

There are no liquid effluents from the site. Trace quantities of tritium were found in the surface water, and on site wells.

The maximum potential Committed Effective Dose Equivalent to the public that could occur from surface water was calculated to be **6.97E-3 mrem** - based on a person consuming water all year from the North Ditch (152.7 pCi/l H-3).

The maximum potential Committed Effective Dose Equivalent to the public that could occur from groundwater was calculated to be **6.94E-3 mrem** - based on a person consuming water all year from the DM-5 well (152 pCi/l H-3).

Direct radiation measurement at the GE Morris Operation owner control boundary continues using TLD and direct measurement techniques. The calculated maximum potential Committed Effective Dose Equivalent to the public that could occur from direct radiation at the boundary of the owner controlled area was calculated to be **0.329 mrem** assuming the maximum time spent at the boundary is 24 hours per year.

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The maximum potential radiation dose to the public for 2002 would result from the sum of the stack effluent releases, the dose from drinking water from the North Ditch and direct radiationat the owner controlled boundary. The sum of these sources for 2002 is **.34 mrem**.

Sincerely

Christopher A. Roche
Radiation and Operations Safety Officer

cc: US Nuclear Regulatory Commission
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