SECTION 4 - ENVIRONMENTAL CHANGES

The following RAIs were developed after review of the applicant's CSAR (Ref. 4) and ER (Ref. 5). The RAIs in this section focus on obtaining information which will enable the development of a comprehensive and detailed description of the environmental setting in the vicinity of the GE-MO ISFSI. Responses will be incorporated into the EA and the SER for the license renewal of the General Electric Morris Operation Independent Spent Fuel Storage.

4-1 Justify the use of the X/Q (Chi over Q) value of 4.0x1 0-4 sec/m3 in Assumption (h) of Section 8.6.2 for a short-term ground-level release.

The X/Q value is taken from Table A.5-3. However, Table A.5-3 is used to calculate the ground deposition values from a precipitation washout of stack discharge, which is only one component of the radiation exposure that would result from a ground-level release as discussed in Section 3 of Appendix AA. The additional exposure assessments do not appear to have been addressed. Also, provide the source information for the meteorological conditions given in Appendix A.5 and document that they are applicable to the GE-MO site.

Title 10 CFR 72.24 requires the application contain sufficient technical information to support a finding that the ISFSI will satisfy the design basis with an adequate margin of safety.

Response – The original question referred to a previous revision of the GE-MO CSAR. The current submitted revision of the CSAR, D11 submitted in August 2004 has updated information. The reference has been changed to Appendix B.22 table 2. Appendix B.22 provides an explanation of the calculation method of X/Q for ground level releases. The highest credible X/Q value is 4.07x10-4. This is a very conservative number as it is based on the wind blowing directly at the worst location under the worst atmospheric conditions (very stable, very little cloud diffusion). If the calculations were done assuming average meteorological conditions the exposures would be orders of magnitude under what is listed.

Changing the number from 4.0 x 10-4 to 4.07 x 10-4 would not affect the dose stated.