[redacted]
When separated from SGI Enclosure 2, this document is decontrolled provided the transmittal document does not otherwise warrant protection from unauthorized disclosure

Joseph M. Farley Nuclear Plant – Units 1 and 2

Enclosure 3

Environmental Assessment

Enclosure 3
Joseph M. Farley Nuclear Plant – Units 1 and 2
Environmental Assessment

1. Describe any change to the types, characteristics, or quantities of non-radiological effluents discharged to the environment as a result of the proposed exemption.

SNC Response

There are no expected changes in the types, characteristics, or quantities of non-radiological effluents discharged to the environment associated with the proposed exemption. This application is associated with implementation of security changes. These security changes will not result in changes to the design basis requirements for the structures, systems, and components (SSCs) at the Farley Nuclear Plant (FNP) that function to limit the release of non-radiological effluents during and following postulated accidents. All the SSCs associated with limiting the release of offsite non-radiological effluents will therefore continue to be able to perform their functions, and as a result; there is no significant non-radiological effluent impact. There are no materials or chemicals introduced into the plant that could affect the characteristics or types of non-radiological effluents. In addition, the method of operation of non-radiological waste systems will not be affected by this change.

2. Describe any changes to liquid radioactive effluents discharged as a result of the proposed implementation.

SNC Response

There are no expected changes to the liquid radioactive effluents discharged as a result of this exemption. The proposed security changes will not interact to produce any different quantity or type of radioactive material in the reactor coolant system. These security changes will not result in changes to the design basis requirements for the SSCs at the FNP that function to limit the release of liquid radiological effluents during and following postulated accidents. All the SSCs associated with limiting the release of liquid radiological effluents will therefore continue to be able to perform their functions, and as a result, there is no significant liquid radiological effluent impact.

3. Describe any changes to gaseous radioactive effluents discharged as a result of the proposed exemption.

SNC Response

For the same reasons as described in number 2 above, this change would have no affects on the characteristics of gaseous radioactive effluents.

4. Describe any change in the type or quantity of solid radioactive waste generated as a result of the proposed exemption.

SNC Response

These security changes will not result in changes to the design basis requirements for the structures, systems, and components (SSCs) at the FNP that function to limit the release of solid waste during and following postulated accidents. All the SSCs associated with limiting the release of solid radioactive waste will therefore continue to

be able to perform their function.

Radiation surveys will be performed in accordance with plant radiation protection procedures on excavated dirt that could be contaminated, such as inside the protected area or radiation control areas, that will be disposed of offsite. Any contaminated dirt will be handled in accordance with plant procedures. FNP has a radiation survey program and procedures to handle any contaminated excavated soil that is inside the protected area or radiation control areas.

5. What is the expected change in occupational dose as a result of the proposed exemption under normal and design basis accident conditions?

SNC Response

Under normal power operation there would be no expected radiological impact on either the workforce or the public. There are no other expected changes in normal occupational operating doses. Control room dose is not impacted by the proposed security changes and would not impact occupational dose.

6. What is the expected change in the public dose as a result of the proposed change under normal and DBA accident conditions?

SNC Response

Dose to the public will not be changed by the proposed security changes during normal operations. As noted in items 2, 3 and 4 above there is no basis to contemplate an increased source of liquid, gaseous or solid radiological effluents that could contribute to increased public exposure during normal operations and DBA conditions. The proposed security changes do not impact systems used during normal operation nor systems used to detect or mitigate a DBA.

7. What is the impact to land disturbance for the proposed security changes?

SNC Response

Proposed security changes include the addition of new access roads, new parking lots and other facilities associated with the expanded protected area. Land disturbance is considered when performing environmental impact evaluations. Environmental impact evaluations have been completed for the new parking lot, three new roads and certain other facilities. Additional environmental impact evaluations will be completed as required.

A FNP environmental survey of sensitive areas has previously been completed and environmental sensitive areas are identified. Provisions for dealing with the inadvertent discovery of significant subsurface archaeological deposits and human remains are part of the administrative control procedures in place at FNP in the unlikely event such deposits and remains are encountered during routine operations and maintenance. A procedure is in place to address land disturbance at FNP. This procedure (FNP-0-GMP-81.0 "General Excavating and Trenching Guidelines") states

that should the excavation uncover potentially historic or archeological significant items including human remains the excavation will stop and corporate Environmental Affairs shall be contacted to evaluate the excavation site.

Conclusion:

There is no significant radiological environmental impact associated with the proposed security changes at FNP. These proposed changes will not affect any historical sites nor will they affect non-radiological plant effluents.