Mark J. Ajluni, P.E.
Nuclear Licensing Director

Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201

Tel 205.992.7673
Fax 205.992.7885

SOUTHERN COMPANY

September 10, 2010

NL-10-1795

Docket Nos.: 50-348
50-364

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant
Request for Exemption
from 10 CFR 73.55(a)(1) Compliance Date – Environmental Assessment

Ladies and Gentlemen:

In the Federal Register dated March 27, 2009, a Final Rule delineating new security requirements was issued under 10 CFR 73, "Physical Protection of Plants and Materials." Pursuant to 10 CFR 73.55(a)(1) of the Final Rule, the new security requirements were to be implemented by March 31, 2010.

As provided by 10 CFR 73.5, in letters dated June 9, 2009 (NL-09-0914) and July 31, 2009 (NL-09-1134), Southern Nuclear Operating Company (SNC) requested that the Nuclear Regulatory Commission (NRC) approve an exemption from specific requirements of 10 CFR 73.55 for the Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2, until December 15, 2010. This request was made to allow time for implementation of certain measures required by the new rule, and was approved by NRC in a letter dated August 27, 2009.

While substantial progress has been made toward implementation of the exempted 10 CFR 73.55 requirements, issues with design and construction of the new security features and modifications to existing security features needed to meet these requirements will prevent full compliance before the December 15, 2010 expiration of the current exemption.

SNC has therefore requested exemption from the specified 10 CFR 73.55 requirements until July 15, 2011, to allow completion of the activities necessary for full compliance. (Note that work on enhancements that exceed 10 CFR 73.55 requirements will continue past that date.) SNC requested approval of the requested exemption by December 15, 2010, the expiration date of the exemption currently in effect. The proposed exemption is requested to be effective upon issuance.

This request for exemption was made in a letter dated September 10, 2010 (NL-10-1676). Enclosures 1 – 3 contain the non-proprietary version of the information provided in that letter which supports the environmental assessment. Enclosure 4 contains the environmental assessment for these activities.

Mr. M. J. Ajluni states he is Nuclear Licensing Director of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

This letter contains no NRC commitments. If you have any questions, please contact Doug McKinney at (205) 992-5982.

Respectfully submitted,

Mark J Ajluni

M. J. Ajluni
Nuclear Licensing Director

Sworn to and subscribed before me this 10th *day of* September, *2010.*

Laura Crumpton
Notary Public

My commission expires: 11-2-2013

MJA/DWD/lac

Enclosures:

1. Non-Proprietary Version of Supporting Information for Exemption Request
2. Non-Proprietary Version of 10 CFR 73 Compliance Modifications Milestone Schedule
3. Non-Proprietary Version of Illustration of Protected Area Expansion
4. Environmental Assessment

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. J. R. Johnson, Vice President – Farley
Ms. P. M. Marino, Vice President – Engineering
RTYPE: CFA04.054

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. R. E. Martin, NRR Project Manager – Farley
Mr. E. L. Crowe, Senior Resident Inspector – Farley
Mr. P. G. Boyle, NRR Project Manager

Alabama Department of Public Health
Dr. D. E. Williamson, State Health Officer

Joseph M. Farley Nuclear Plant
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Enclosure 1

Supporting Information for Exemption Request

Joseph M. Farley Nuclear Plant Request for Exemption
from 10 CFR 73.55(a)(1) Compliance Date

Enclosure 1 - Supporting Information for Exemption Request

A. Background

Prior to issuance of the Final Rule for new security requirements in the Federal Register dated March 27, 2009, Southern Nuclear Operating Company (SNC) planned to expand the protected area (PA) at Joseph M. Farley Nuclear Plant (FNP) to improve security protective strategies, improve Primary Access Point personnel traffic flow, improve search efficiency for vehicles and drivers entering the PA, and to address equipment obsolesce. The plan to expand the PA was approved by management on December 2, 2008 at a cost of approximately $20 million with an original completion date of December 31, 2010. Upon the subsequent issuance of the new security requirements to be implemented by March 31, 2010, SNC accelerated the PA expansion schedule and began construction in June 2009.

SNC evaluated the new 10 CFR 73.55 requirements and determined that while many of them could be implemented by March 31, 2010, specific parts of the new requirements would require additional time for completion of the necessary physical modifications.

Accordingly, in letters dated June 9, 2009 (NL-09-0914) and July 31, 2009 (NL-09-1134), SNC requested approval as provided by 10 CFR 73.5 for an exemption from specific requirements of 10 CFR 73.55 until December 15, 2010. This request was approved by NRC in a letter dated August 27, 2009.

While substantial progress has been made toward implementation of the exempted 10 CFR 73.55 requirements (described in Section C below), issues with design and construction of the new security features and modifications to existing security features needed to meet the exempted requirements (described in Section D below) will prevent full compliance before the December 15, 2010 expiration of the current exemption. An updated milestone schedule (provided in Enclosure 2) anticipates achieving full compliance by July 15, 2011.

SNC therefore requests that an exemption to the specified 10 CFR 73.55 requirements until July 15, 2011 be granted to allow completion of the activities necessary for full compliance.

B. FNP Security System Upgrade Details

FNP is a two unit complex with a PA that encompasses both units. The containments, auxiliary building [ ] and diesel

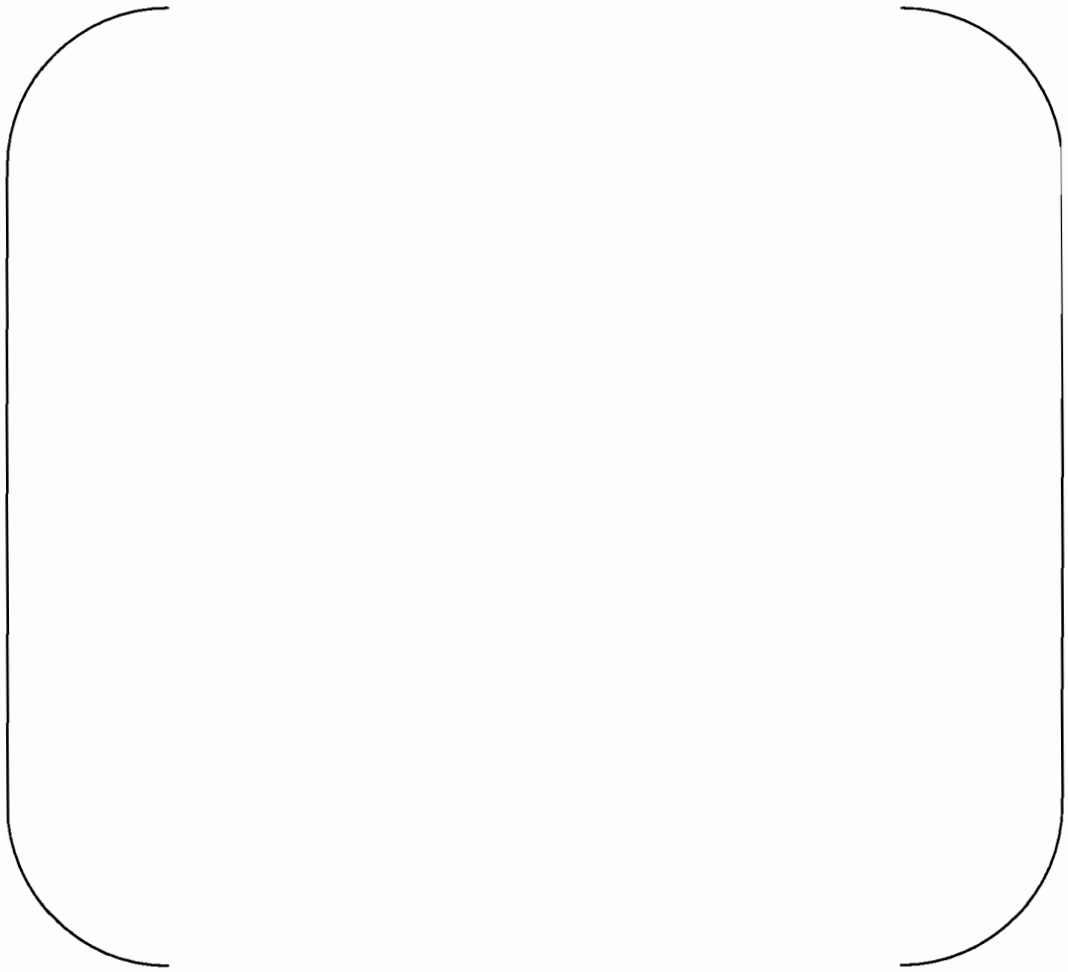
generator building are included in the PA. The expanded PA will include additional onsite buildings and a new primary access building. The PA expansion includes the following major items:

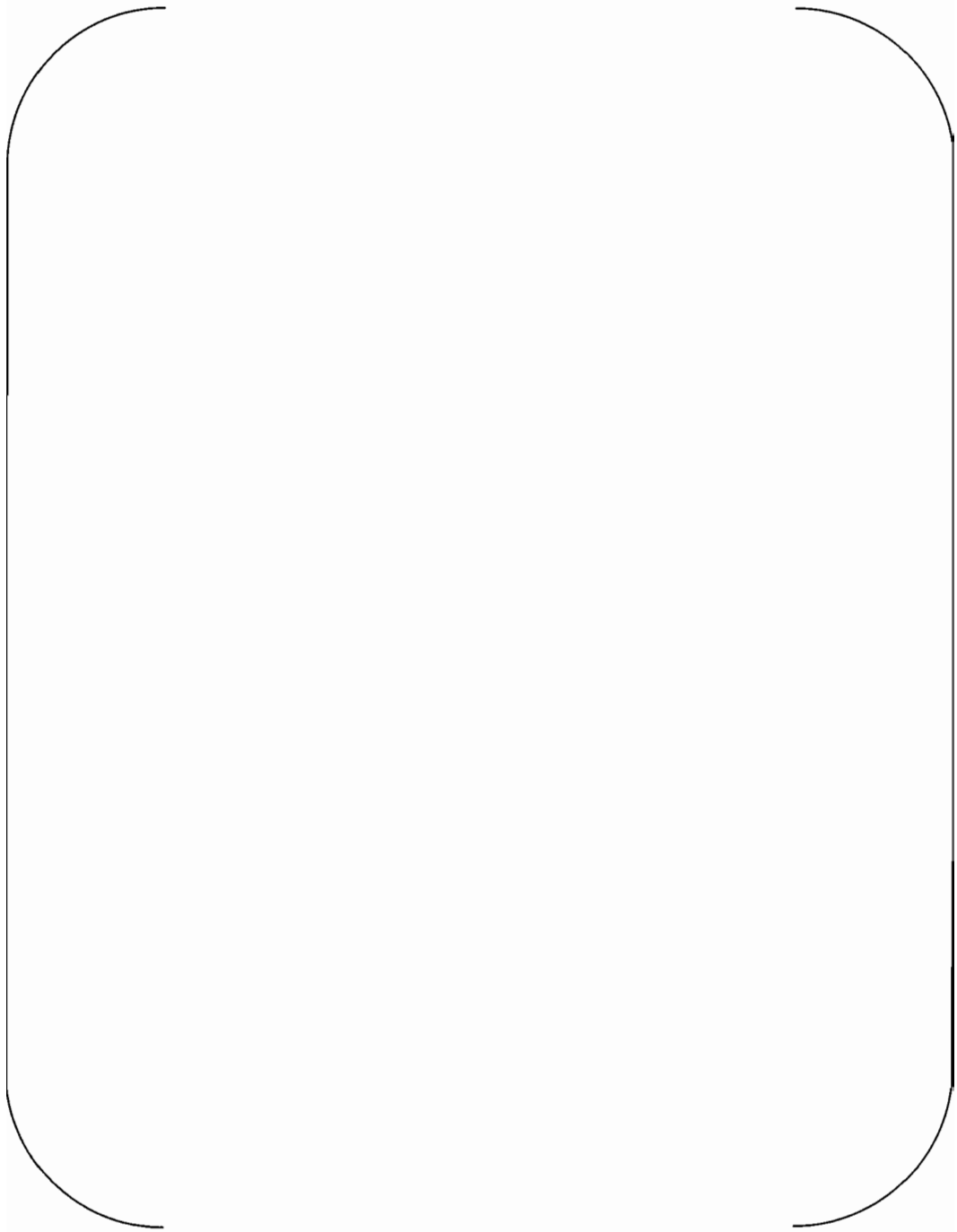
- Doubling (approximately) the current size of the main power block PA
- Associated fencing additions
- Additional Intrusion Detection System (IDS) equipment to cover the expanded area
- Added vehicle barriers to accommodate expanded area
- Additional ballistic resistant enclosures (BREs) to accommodate expanded area
- Security computer modifications to accommodate expanded area
- [ ]
- Construction of new Primary Access Point Building with associated access control requirements
- Addition of new plant site roadways and parking lots to accommodate re-routed traffic and parking.

With the exception of the items described in Section C below, the 10 CFR 73.55 provisions required to be implemented by March 31, 2010 were completed by that date. [ ]. The items described below, for which exemption was granted until December 15, 2010, are now expected to be complete by July 15, 2011, at which time FNP will be in full compliance with 10 CFR 73.55. The circumstances contributing to this delay in achieving compliance, and the basis for the new completion date, are discussed in Section D below.

C. Items Proposed for Exemption

SNC requests exemption for the three items listed in this section. The current site protective strategy, along with the temporary compliance actions described in letters dated June 9, 2009 and July 31, 2009, which were subsequently incorporated into the Physical Security Plan, will continue to provide high assurance of public health and safety and common defense and security. Accordingly, the requested exemption is authorized by law and will not endanger life or property or the common defense and security, in accordance with 10 CFR 73.5.





D. Basis for Proposed Exemption

Cause of delayed 10 CFR 50.73.55 compliance

The December 15, 2010 implementation date set by SNC in the exemption request letters of June 9, 2009 and July 31, 2009 was based on achievement of design, procurement and construction milestones as detailed in the PA expansion milestone schedule included in the July 31, 2009 letter. For comparison, these milestones are included in the current schedule provided in Enclosure 2, which anticipates a new 10 CFR 50.73.55 compliance date of July 15, 2011, 7 months beyond the original date.

The major cause of this 7 month schedule slippage was the late issuance of design documents relative to the schedule assumed by the June 9, 2009 original exemption request submittal. This in turn was primarily due to the creation of the original schedule while conceptual design was still in the early stages of

development. Involving the most extensive changes to the plant grounds and outbuildings since FNP was constructed, the unanticipated complexity of the design work involved extensive interface with existing systems and some first-of-a-kind equipment applications. The growth in the estimated total project cost from $52 million as cited in the July 31, 2009 letter to the current estimate of about $120 million is a rough indicator of the magnitude of the unforeseen extra work encountered.

An additional factor which delayed design issuance was the loss of design work product due to computer hard drive failures. Safeguards Information (SGI) including 124 completed (but not yet issued) design drawings was encrypted on the hard drive of a computer isolated from the network and backed up to just one other hard drive, which was installed in the same computer. Due to an apparent decryption problem, data was not recoverable from either drive, requiring re-creation of the lost drawings. No SGI was compromised by this incident, but it resulted in a 2 month delay in design issuance.

The delays in design issuance constrained construction activities and impacted the normal construction sequence. This reduced productivity and caused re-work to the extent that in spring 2010 construction was paused for 3 weeks to allow design issuance to catch up. Work then resumed as design issuance and construction conditions permitted. In addition, the site experienced periods of unusually wet weather (totaling 95 bad weather days from project start in June 2009 through July 2010). This imposed additional delays (e.g. one day of rain which flooded and collapsed open trenches could require several days for pump-out and re-excavation) while limiting opportunities to make up for the design-related delays.

Confidence in updated schedule for achieving 10 CFR 50.73.55 compliance

SNC is confident that full compliance with 10 CFR 73.55 requirements will be achieved by the end of the new requested exemption period, July 15, 2011. This confidence is founded on the contrast between current conditions and the information available at the start of the project in June 2009 when milestones were set even as conceptual design was incomplete.

The new milestone schedule benefits from the reduction in unknown factors naturally resulting from the project progress made since then, taking into consideration that:

- construction is well underway, with the new plant access [ ] buildings now under roof, reducing weather impacts

- design essential for critical path work has now been issued to the site

- material essential for critical path work is now on site

- milestones are based on 5 – 10 hour shifts per week to maximize worker productivity while allowing targeted weekend and/or second shift work as needed to maintain critical path milestone progress

- the new milestone schedule incorporates 30 days for testing and training following completion of construction

The current schedule is focused on the activities necessary for achieving 10 CFR 73.55 compliance as soon as practical, while not compromising implementation of planned additional enhancements that are beyond 10 CFR 73.55. For example, computer systems and conduit runs installed as part of 10 CFR 73.55 compliance efforts have been sized to accommodate a planned early warning fence outside the PA to be constructed later.

Summary and Conclusion

[ ]

2) As detailed above, the major reason additional time is required to implement these requirements is that the completion time assumed in the original exemption request was established before conceptual design was complete and did not take into account the unforeseen complexity which delayed design issuance.

3) As detailed above, the design information and the materials essential for critical path work have been received onsite and key milestones such as structural completion of the plant access [ ] buildings have been achieved, greatly reducing the uncertainty in forecasting the remaining time needed to implement the 10 CFR 73.55 requirements

4) A schedule showing implementation milestones leading up to the revised date of July 15, 2011 for full 10 CFR 73 compliance is provided in Enclosure 2.

5) As discussed in Section C, the temporary compliance actions incorporated into the FNP site security plan as a condition of NRC approval of the original exemption period remain in effect. Accordingly, the current protective strategy continues to provide high assurance for the protection of FNP and the public from the effects of radiological sabotage.

It can therefore be concluded that in accordance with 10 CFR 73.5, the requested exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest.

Joseph M. Farley Nuclear Plant
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Enclosure 2

10 CFR 73 Compliance Modifications Milestone Schedule

Enclosure 2

Joseph M. Farley Nuclear Plant
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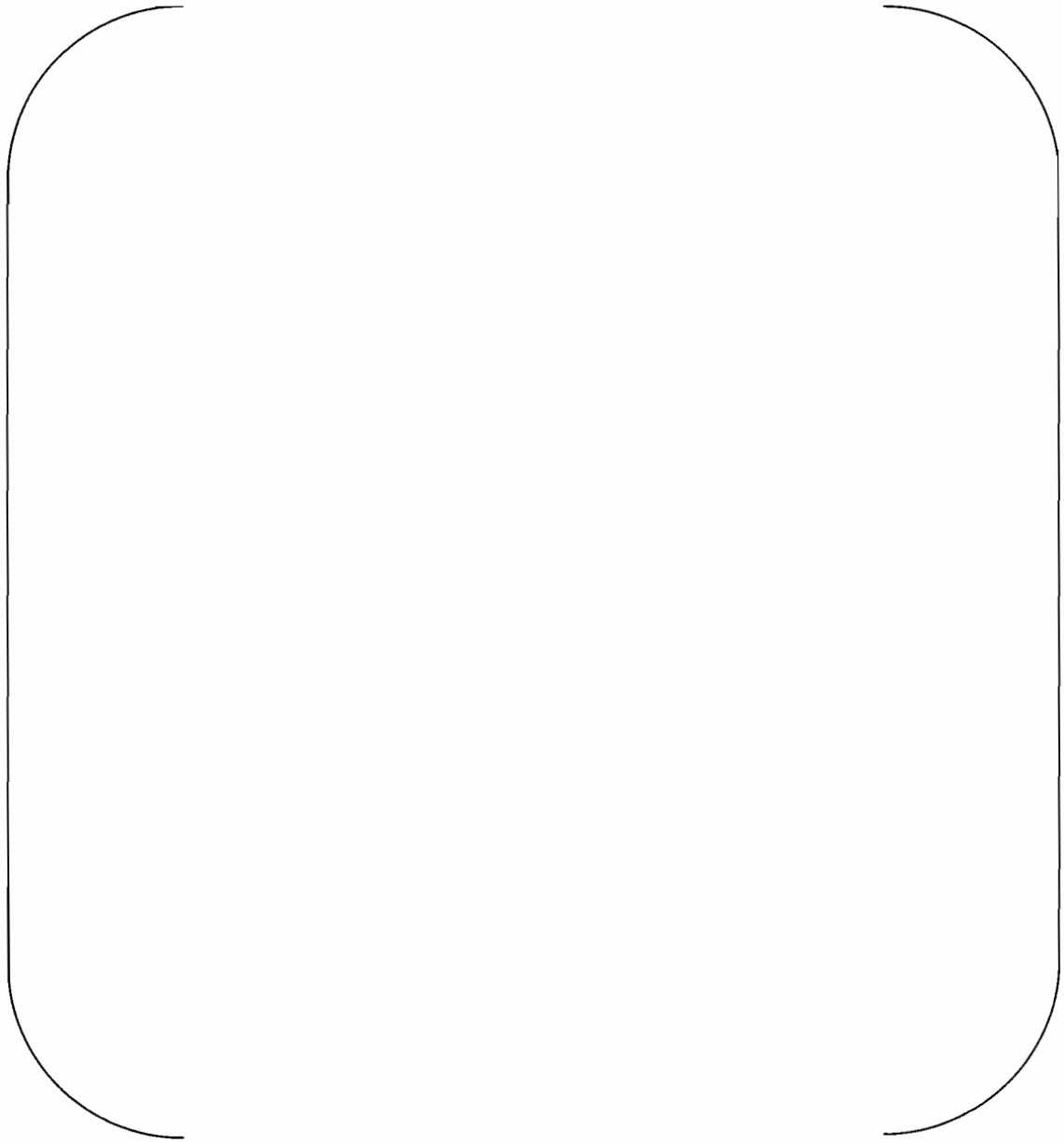
Enclosure 3

Illustration of Protected Area Expansion

Joseph M. Farley Nuclear Plant - Request for Exemption from 10 CFR 73.55(a)(1) Compliance Date

Enclosure 3

Illustration of Protected Area Expansion



Joseph M. Farley Nuclear Plant
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Enclosure 4

Environmental Assessment

Enclosure 4

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 effects on the characteristics of gaseous radioactive effluents.

Enclosure 4

Environmental Assessment

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.