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**Attachment 1 to this letter contains
SECURITY-RELATED
INFORMATION -WITHHOLD
UNDER 10 CFR 2.390.
Upon removal of Attachment 1
this letter is uncontrolled.**

10 CFR 73.5

Serial: RA-09-016
November 30, 2009

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555-0001

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324 / LICENSE NOS. DPR-71 AND DPR-62

REQUEST FOR EXEMPTIONS FROM PHYSICAL SECURITY REQUIREMENTS

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 73.5, Carolina Power & Light Company (CP&L), now doing business as Progress Energy Carolinas, Inc., requests the Nuclear Regulatory Commission (NRC) approve exemptions from specific requirements of 10 CFR Part 73, "Physical Protection of Plants and Materials." The exemptions requested would extend the compliance due date for Brunswick Steam Electric Plant, Unit Nos. 1 and 2, for certain measures required by the revised rule.

The NRC issued a Final Rule for revised security requirements in the Federal Register dated March 27, 2009. Pursuant to the Final Rule, the revised security requirements must be implemented by March 31, 2010. Progress Energy has performed an extensive evaluation of the Final Rule and will achieve compliance with a vast majority of the revised rule by the March 31, 2010, compliance date.

CP&L has determined, however, that implementation of two specific provisions of the Final Rule will require more time to implement because they involve upgrades to the security system that require significant physical modifications (e.g., the relocation of certain security assets to a new security building that will be constructed, and the addition of uninterruptable power supplies). Additional time beyond the March 31, 2010, date is requested to complete these security modifications. Additional details regarding the specific provisions of the rule for which exemptions are requested, and the length of the requested exemptions are provided in Attachment 1.

This letter contains the following attachments:

- Attachment 1: Exemption Request for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (Contains Security-Related Information – Withhold Under 10 CFR 2.390)
- Attachment 2: Redacted Version of Exemption Request for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2

As noted above, Attachment 1 contains security-related information associated with the physical protection of the Brunswick Steam Electric Plant, Unit Nos. 1 and 2, as described in

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10 CFR 2.390(d)(1). Accordingly, CP&L requests that the information contained in Attachment 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390.

This letter contains no regulatory commitments.

If you should have any questions regarding this submittal, please contact Ed O'Neil, Director – Nuclear Protective Services, at (919) 546-2151.

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 30, 2009.

Sincerely,



R. J. Duncan II
Vice President, Nuclear Operations
Progress Energy, Inc.

RJD/dbm

Attachments:

1. Exemption Request for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (Contains Security-Related Information – Withhold Under 10 CFR 2.390)
 2. Redacted Version of Exemption Request for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2
- c: J. Wiggins, USNRC Director – Office of Nuclear Security and Incident Response
L. Reyes, USNRC Regional Administrator – Region II
USNRC Resident Inspector – BSEP, Unit Nos. 1 and 2
F. Saba, NRR Project Manager – BSEP, Unit Nos. 1 and 2

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SECURITY-RELATED INFORMATION -WITHHOLD UNDER 10 CFR 2.390.
Upon removal of Attachment 1 this letter is uncontrolled.**

Attachment 2
Redacted Version of
Exemption Request for the Brunswick Steam Electric Plant, Units Nos. 1 and 2

Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Docket Nos. 50-325 and 50-324 / License Nos. DPR-71 and DPR-62
Request for Exemption from Specific Provisions in 10 CFR 73.55

A. Background

The NRC recently issued a Final Rule for revised security requirements in the Federal Register dated March 27, 2009. Pursuant to 10 CFR 73.55(a)(1) of the Final Rule, the revised security requirements in 10 CFR 73.55 must be implemented by March 31, 2010. Carolina Power & Light Company (CP&L), now doing business as Progress Energy Carolinas, Inc., has completed an extensive evaluation of these new requirements. This evaluation included a new comprehensive blast analysis for each of Progress Energy's four nuclear sites. The comprehensive blast analysis included consideration of equipment necessary to maintain the four required alarm station functions, consideration of explosives as allowed by the Design Basis Threat (DBT), research of construction records, and excavation of a wall to determine exact wall construction. Additionally, as resolutions to identified vulnerabilities were evaluated, CP&L's internal adversary team was consulted to assure that thorough resolutions were chosen.

As a result of the extensive evaluation, CP&L has determined that the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, site will be in compliance with the vast majority of the requirements in the Final Rule within the brief implementation period. Significant efforts are being expended to comply with the revised rule requirements in the Final Rule. These efforts include: implementation of the new safety/security interface requirements, revising and implementing the Training and Qualification Plan in accordance with the new requirements, revising and implementing the new increased drill and exercise requirements, and resolving the major logistical challenges involved with the increased number of drills and exercises involving the adversary team and Multiple Integrated Laser Engagement System (MILES) gear. To address some of the logistical challenges, Progress Energy plans to centrally control the MILES gear and is voluntarily adopting the Department of Energy standards for issuance of the MILES gear for drills and exercises.

However, CP&L has determined that implementation of two of the revised requirements will require additional time since they involve significant physical upgrades to the BSEP security system. These changes are significant physical modifications that will benefit the BSEP defensive strategy beyond the minimum requirements necessary to meet the new security requirements.

Prior to the issuance of the Final Rule, Progress Energy had embarked on several significant security improvement initiatives to enhance the fleet's protective strategy, replace aging

security equipment, and standardize security systems across the company's four nuclear sites. At BSEP, this involves the construction of a new firing range (complete), {

} security computer upgrade, {

} and replacing security card readers, none of which are directly associated with the Final Rule.

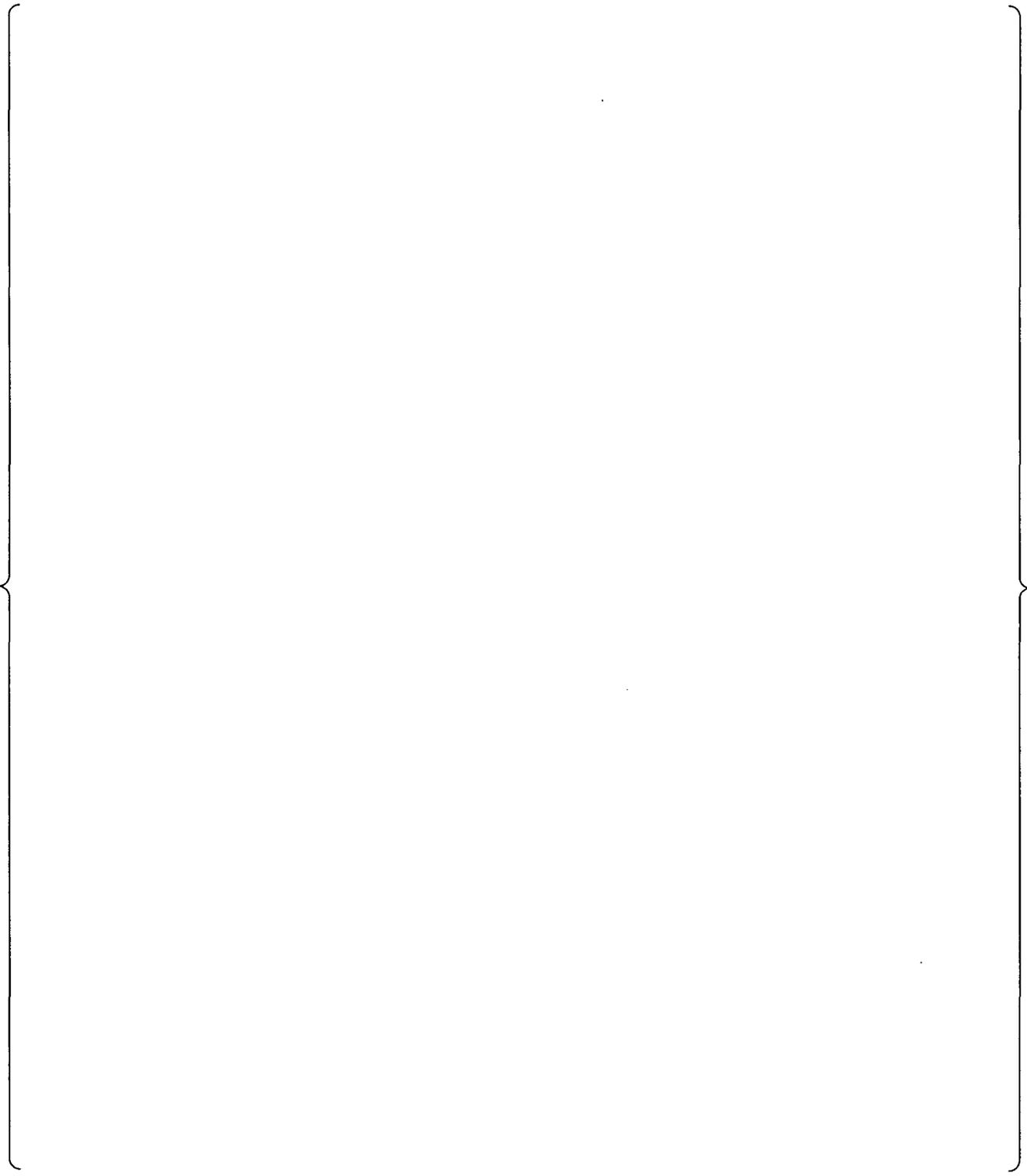
Upon review of the Final Rule, CP&L added four projects necessary to achieve compliance with the Final Rule. These projects are:

Compliance with 10 CFR 73.55{ } (Project 1) will be achieved by March 31, 2010. Projects 2, 3, and 4 require additional time beyond March 31, 2010, to complete and are the subject of this exemption request. Note that Projects 3 and 4 are both required to meet 10 CFR 73.55{ } See Table 1 below for project milestone schedules. These projects, once completed, will provide a robust defensive posture beyond that which would be achieved through the use of night vision technology only.

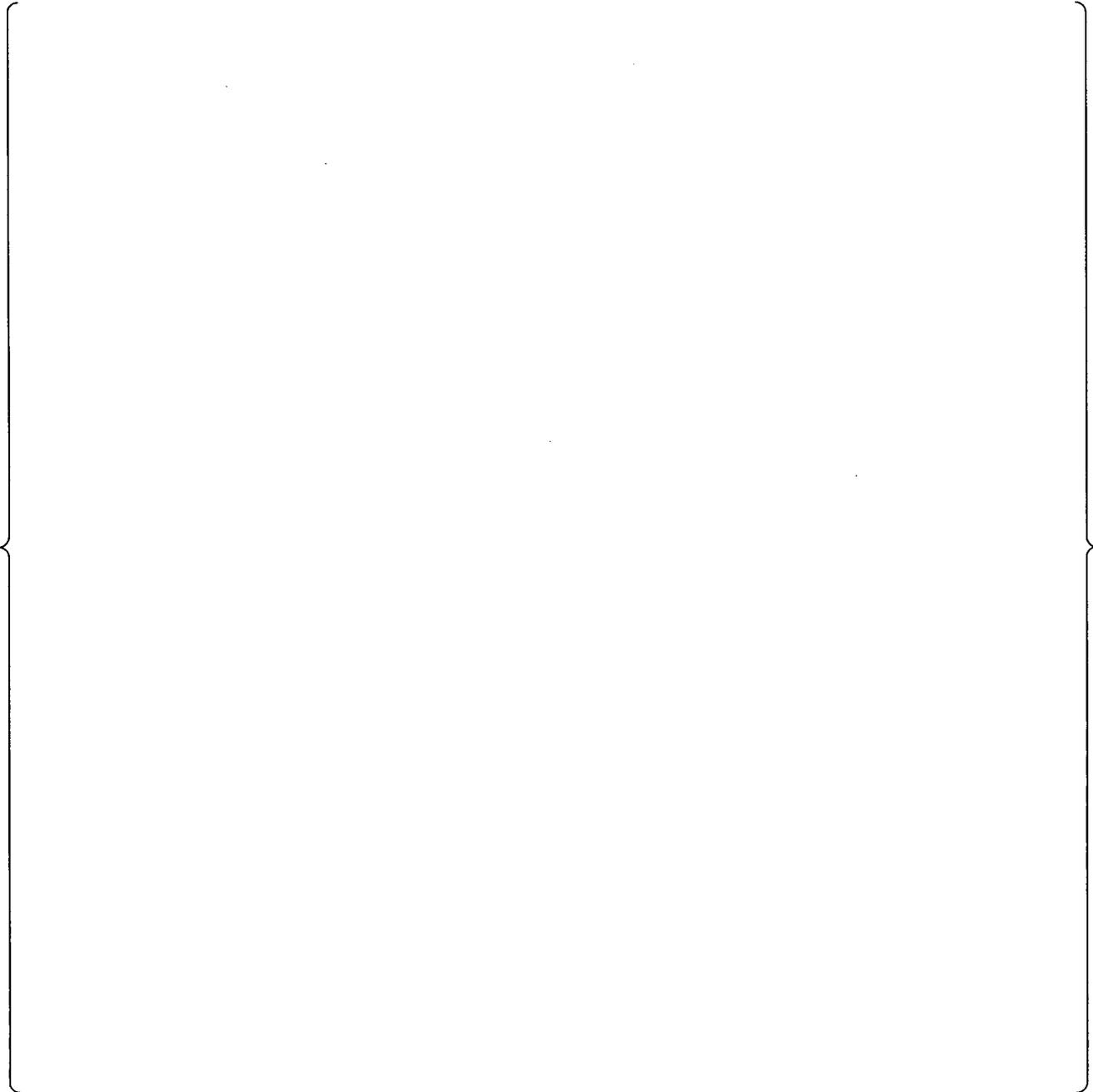
B. Proposed Exemptions

CP&L requests exemptions, from the implementation date only, for the two items listed below. CP&L will maintain the current BSEP site protective strategy in accordance with the current Physical Security Plan. The current BSEP site protective strategy has been approved by the NRC staff as providing a high assurance for the protection of the facility and public from the effects of radiological sabotage. Accordingly, the requested exemption to defer compliance with two provisions of 10 CFR 73.55 until December 20, 2010, "*will not endanger life or property or the common defense and security, and are otherwise in the public interest.*"

Item 1



Item 2



C. Basis for Exemptions

CP&L is seeking exemption from the March 31, 2010, compliance date to December 20, 2010, for two provisions listed in 10 CFR 73.55 as discussed in Section B.

BSEP management has approved the plan to install the new backup power system and

move through the competitive bidding process.

Additional time beyond the March 31, 2010, compliance date is necessary due to the time needed to design and construct the new SEEB and the time necessary to tie-in and test the new and relocated equipment.

Construction of the SEEB foundation and shell cannot begin until the design reaches the 30 percent phase. This time is necessary to thoroughly research and evaluate all available options and considerations impacting the installation of the foundation and shell, such as size of equipment and services to be located in the building and interferences that exist at the building site. Approximately three months are necessary to complete this design work.

be relocated. The presence of the underground interferences further complicates the design and construction of an already complex project and will require additional time to carefully excavate the site. Excavation in and around the PA is a slow process which typically involves hand excavating the surface and then vacuuming away the loose dirt to prevent the inadvertent severance of underground power, communications, and piping systems that could disrupt plant operations or security systems. Approximately two months is scheduled for the site surveys and site preparation which will be done concurrent with the 30 percent design phase.

The SEEB will be {
} Additional logistical challenges are introduced by the BSEP, Unit No. 1, refueling outage which will begin during the installation of the SEEB foundation and construction of the shell. The construction will occur in an area that is a central hub of activity for outage workers moving in and out of the plant. Therefore, this activity must be carefully coordinated with the planned refueling outage activities. Approximately five months are necessary to install the SEEB foundation and construct the { } shell for this large structure located inside the PA.

Installation of this electrical equipment cannot begin until the SEEB shell is completed. Installation of the electrical equipment will be performed in parallel with the completion of the SEEB and must be coordinated with the installation of other necessary services such as electrical feeds, heating and ventilation systems, and fire protection systems. Once started,

Relocation of the { } involves installation of underground conduit which involves trenching and pulling thousands of feet of heavy, high voltage cable around BSEP's large site perimeter. Rerouting the power cables for the { } is a significant part of the work scope and must be carefully planned. Duct bank surveys and inspections must be performed to assure accurate designs. These surveys and inspections will take approximately two months and be performed in parallel with the 30 percent design phase which will take three months. The duct bank surveys and inspections involve considerable personnel safety risk and, therefore, must be carefully planned and executed since the wires, duct banks, and conduits involved carry high voltage cabling from various plant loads. Materials procurement will be initiated once the 30 percent design phase is completed and run in parallel with the 70 percent design phase. Actual installation of underground conduit and cables will begin once the 70 percent design phase is completed and be performed in parallel with the SEEB construction and electrical equipment installation. Final tie-in and acceptance testing of the { } cables is dependent on the completion of the SEEB and associated electrical equipment discussed above.

A significant portion of the trenching and cable pulling will be in the BSEP transformer yards and switchyard. Excavation and trenching inside the transformer yards and protected area of nuclear plants requires the highest level of planning and safety oversight and must be performed in a methodical manner to ensure both personnel and nuclear safety are maintained. Work in the switchyard must be carefully controlled to prevent an inadvertent shutdown or loss of power event. Work in this area is subject to frequent interruption due to plant conditions and nuclear risk management practices that protect critical equipment by restricting access to the switchyard.

Once the SEEB is completed, with { } installed, and the rerouting of the power cables for the { } is completed, tie-in and acceptance testing of these systems can begin. The SEEB and associated equipment are scheduled to be in place by October 11, 2010; however, final connection of loads, acceptance testing, and system turnover will not be complete until December 20, 2010.

In addition to the above work, an existing wall, { } will be reinforced and its door replaced with a blast resistant door to protect the { } This work is complicated because it involves an { } and the replacement of an alarmed door, including the movement of the electronics for the door card reader, alarms and closures in close proximity to the { } To assure functionality of the { } during this project, additional time will be necessary to design and plan the work. Procurement of the materials necessary will occur at the completion of the 70 percent design phase to assure that appropriate materials are obtained. Contrary to other projects where limited work can begin once the 30 percent design phase is completed, work on this project will begin once the

design is complete to ensure {
} throughout the project. This work to reinforce the wall and install a blast resistant door will be completed by September 6, 2010; however, full compliance with 10 CFR 73.55{ } will not be achieved until December 20, 2010, as discussed above.

Summary

CP&L is expending a great deal of effort in the design and planning phases of these projects to ensure a sound safety-security interface. As noted above, this is especially critical during construction of the SEEB and relocation of the cabling for the perimeter lighting.

- Operating experience from the implementation of previous security orders has shown that decisions made within a compressed schedule to meet an aggressive deadline may meet the intent of the regulation, but since there is not adequate time to thoroughly research and evaluate all available options and considerations, they often create unintended consequences that have long-term adverse impacts on the site. Additional time for design and implementation will help to avoid adverse consequences associated with these projects.
- The sequencing of many activities within a compressed time frame presents a number of challenges. Many activities have to be completed in series with each other while other activities can be accomplished in parallel. Additional time will provide for better planning and execution and better assure personnel safety and a sound safety-security interface throughout the construction portion of the project.

These modifications will provide several long term security benefits for BSEP:

CP&L believes that the additional time necessary to complete this project is warranted based on the strengthened security posture that will be achieved through the implementation of these projects.

CP&L believes that the significant scope of the modifications and the time necessary to safely construct and test the modifications justify an exemption to the March 31, 2010, compliance date of the Final Rule. Therefore, CP&L believes that our actions are in the best interest of protecting public health and safety through the security changes that will be instituted.

D. Environmental Assessment

Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc., is requesting an exemption for Brunswick Steam Electric Plant, Unit Nos. 1 and 2, in accordance with 10 CFR 73.5, "Specific exemptions." The requested exemption would defer the compliance date from March 31, 2010, as specified in 10 CFR 73.55(a)(1), to December 20, 2010, for two specific provisions of 10 CFR 73.55. The proposed action is needed to allow additional time for the design and installation of security modifications that are expected to provide long term benefits in security posture and capabilities. In lieu of full compliance with the two provisions of 10 CFR 73.55, as revised on March 27, 2009, CP&L will maintain the current Brunswick Steam Electric Plant, Unit Nos. 1 and 2 site protective strategy in accordance with the current Physical Security Plan. The current Brunswick Steam Electric Plant, Unit Nos. 1 and 2 site protective strategy has been approved by the NRC staff as providing a high assurance for the protection of the facility and public from the effects of radiological sabotage.

Deferral of compliance from March 31, 2010, to December 20, 2010, for two provisions of 10 CFR 73.55 is a compliance date change only and, therefore, does not result in any physical changes to structures, systems, and components (SSCs) or land use at Brunswick Steam Electric Plant, Unit Nos. 1 and 2. Therefore, the deferral of the compliance date does not involve:

- any change to the types, characteristics, or quantities of non-radiological effluents discharged to the environment.
- any changes to liquid radioactive effluents discharged to the environment.
- any changes to gaseous radioactive effluents discharged to the environment.
- any change in the type or quantity of solid radioactive waste generated.
- any change in occupational dose under normal or Design Basis Accident (DBA) conditions.
- any change in the public dose under normal or DBA accident conditions.
- any land disturbance.

Conclusion

There is no significant radiological environmental impact associated with the proposed exemption. The proposed exemption will not affect any historical sites nor will it affect non-radiological plant effluents.

Table 1: Project Schedule Milestones*



* The dates and sequences provided in this milestone schedule are best estimates based on information available at the time the schedule was developed and may change as designs are finalized and construction proceeds. Therefore, these dates and sequences are not considered to be regulatory commitments.

Figure 1: Conceptual Design of Proposed Security Electrical Equipment Building

