NEXTera ENERGY
DUANE ARNOLD

~~SECURITY RELATED INFORMATION~~
~~WITHHOLD FROM PUBLIC DISCLOSURE UNDER 10 CFR 2.390~~

November 19, 2009

NG-09-0635
10 CRF 50.90
10 CFR 50.4

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

Duane Arnold Energy Center
Docket No. 50-331
License No. DPR-49

License Amendment Request (TSCR-121): Request for Approval of the Duane Arnold Energy Center/NextEra Energy Duane Arnold, LLC Cyber Security Plan

In accordance with the provisions of 10 CFR 50.4 and 10 CFR 50.90, NextEra™ Energy Duane Arnold, LLC (hereafter NextEra Energy Duane Arnold) is hereby submitting a request for amendment to the Operating License (OL) for the Duane Arnold Energy Center (DAEC)/NextEra Energy Duane Arnold. This proposed amendment requests NRC approval of the NextEra Energy Duane Arnold Cyber Security Plan, provides an implementation schedule, and adds a sentence to the existing OL Physical Protection license condition to require NextEra Energy Duane Arnold to fully implement and maintain in effect all provisions of the Commission approved Cyber Security Plan.

Enclosure 3 to this letter contains sensitive information
Withhold from public disclosure under 10 CFR 2.390.
Upon removal of Enclosure 3, this letter is decontrolled.

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Enclosure 1 provides an evaluation of the proposed change and contains the following attachments:

- Attachment 1 provides the existing OL page marked up to show the proposed change.
- Attachment 2 provides the proposed OL changes in final typed format.

Enclosure 2 provides a copy of the DAEC/NextEra Energy Duane Arnold Cyber Security Plan Implementation Schedule.

Enclosure 3 provides a copy of the DAEC/NextEra Energy Duane Arnold, LLC Cyber Security Plan which is a stand alone document that will be incorporated by reference into the DAEC/NextEra Energy Duane Arnold Physical Security Plan after approval. NextEra Energy Duane Arnold requests that Enclosure 3, which contains sensitive information, be withheld from public disclosure in accordance with 10 CFR 2.390.

This application has been reviewed by the NextEra Energy Duane Arnold Onsite Review Group. The proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c). A copy of this submittal, along with the 10 CFR 50.92 evaluation of "No Significant Hazards Consideration," is being forwarded to our appointed state official pursuant to 10 CFR 50.91.

NextEra Energy Duane Arnold requests an implementation period of 36 months following NRC approval of the license amendment.

If you should have any questions or require additional information, please contact Steve Catron, Licensing Manager, at (319) 851-7234.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 19, 2009.

Christopher R. Costanzo
Vice President, Duane Arnold Energy Center
NextEra Energy Duane Arnold, LLC

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Upon removal of Enclosure 3, this letter is decontrolled.

Enclosure 1 – Evaluation of Proposed Change
Attachment 1 – Proposed Facility Operating License Change (Mark-up)
Attachment 2 – Proposed Facility Operating License Change (Re-typed)
Enclosure 2 – Cyber Security Plan Implementation Schedule
Enclosure 3 – DAEC/NextEra Energy Duane Arnold Cyber Security Plan

cc: Administrator, Region III, USNRC
Project Manager, DAEC, USNRC
Resident Inspector, DAEC, USNRC
D. McGhee (State of Iowa)

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ENCLOSURE 1

EVALUATION OF PROPOSED CHANGE

SUBJECT: License Amendment Request (TSCR-121): Request for Approval of the Duane Arnold Energy Center/NextEra Energy Duane Arnold, LLC Cyber Security Plan

1.0 SUMMARY DESCRIPTION
2.0 DETAILED DESCRIPTION
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4.0 REGULATORY EVALUATION
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Attachment 1 – PROPOSED FACILITY OPERATING LICENSE CHANGE (MARK-UP)
Attachment 2 – PROPOSED FACILITY OPERATING LICENSE CHANGE (RE-TYPED)

1.0 SUMMARY DESCRIPTION

The proposed license amendment request (LAR) includes the proposed DAEC/NextEra Energy Duane Arnold Cyber Security Plan (Plan), an Implementation Schedule, and a proposed sentence to be added to the existing OL Physical Protection license condition.

2.0 DETAILED DESCRIPTION

The proposed LAR includes three parts: the proposed Plan, an Implementation Schedule, and a proposed sentence to be added to the existing OL Physical Protection license condition to require NextEra Energy Duane Arnold to fully implement and maintain in effect all provisions of the Commission approved Cyber Security Plan as required by 10 CFR 73.54. *Federal Register* notice 74 FR 13926 issued the final rule that amended 10 CFR Part 73. The regulations in 10 CFR 73.54, "Protection of digital computer and communication systems and networks," establish the requirements for a cyber security program. This regulation specifically requires each licensee currently licensed to operate a nuclear power plant under Part 50 of this chapter to submit a cyber security plan that satisfies the requirements of the Rule. Each submittal must include a proposed implementation schedule and implementation of the licensee's cyber security program must be consistent with the approved schedule. The background for this application is addressed by the NRC Notice of Availability published on March 27, 2009, 74 FR 13926 (Reference 1).

3.0 TECHNICAL EVALUATION

Federal Register notice 74 FR 13926 issued the final rule that amended 10 CFR Part 73. Cyber security requirements are codified as new 10 CFR 73.54 and are designed to provide high assurance that digital computer and communication systems and networks are adequately protected against cyber attacks up to and including the design basis threat established by § 73.1(a)(1)(v). These requirements enhance upon the requirements imposed by EA-02-026 (Reference 2).

This LAR includes the proposed change to the existing OL license condition for "Physical Protection" (Attachments 1 and 2). In addition, the LAR contains the proposed Implementation Schedule (Enclosure 2) as required by 10 CFR 73.54. Finally, this LAR includes the proposed Plan (Enclosure 3) that conforms to the template provided in NEI 08-09 Revision 3, with the following clarifications:

Emergency preparedness

10 CFR 73.54 requires protecting digital computer and communication systems and networks associated with emergency preparedness (EP) functions, including offsite communications. The EP functions within the scope of the Plan are those functions which support implementation of the Risk Significant Planning Standards* (RSPSs) as defined in NRC Inspection Manual Chapter 0609, Appendix B. The RSPSs are the subset of EP Planning Standards, defined in 10 CFR50.47(b), which play the greatest

role in protecting public health and safety. In terms of importance, this approach aligns the selected EP functions with other system functions which are "Safety-Related" or "Important-to-Safety."

10 CFR 73.56(b)(ii) requires that any individual whose duties and responsibilities permit the individual to take actions by electronic means, either on site or remotely, that could adversely impact the licensee's emergency preparedness be subject to an access authorization program. However, some systems, or portions of systems, which perform a RSPS-related EP function may be located in offsite locations not under the control of the licensee and/or not staffed by licensee personnel. Similarly, there may be system components that are normally installed, modified or maintained by non-licensee personnel (e.g., a telecommunications company technician, and employee of a State agency, etc.).

Therefore the systems, and portions of systems, to be protected from cyber attack in accordance with 10 CFR 73.54(a)(1)(iii) must;

1. Perform a RSPS-related EP function, and
2. Be within the licensee's complete custody and control.

* The RSPSs are 10 CFR 50.47(b)(4), (5), (9), and (10), including the related sections of Appendix E to 10 CFR Part 50. 10 CFR 50.47(b)(10) has two aspects that are of differing risk-significance. Only the portion dealing with the development of protective action recommendations (PARs) is integral to protection of public health and safety and is considered to be an RSPS.

Senior nuclear management
Senior nuclear management is defined as Vice President Nuclear Plant Support who is accountable for nuclear plant security. The NEI 08-09 template defines this position as accountable for nuclear plant operations. The position of Vice President Nuclear Plant Support better reflects the duties and responsibilities of the NextEra Energy Duane Arnold Cyber Security Plan.

List of Critical Systems
NEI 08-09 Revision 3 template included a list of critical systems and included this list as Table 1. Table 1 is not included in this plan. These critical systems will be identified and evaluated during the cyber security assessment program development.

Section 2.2.6
Changed reference from 73.54(g) to more appropriate reference of 73.54(b)(2).

4.0 REGULATORY EVALUATION

4.1 APPLICABLE REGULATORY REQUIREMENTS/CRITERIA

This LAR is submitted pursuant to 10 CFR 73.54 which requires licensees currently licensed to operate a nuclear power plant under 10 CFR Part 50 to submit a Cyber Security Plan as specified in 10 CFR 50.4 and 10 CFR 50.90.

4.2 SIGNIFICANT HAZARDS CONSIDERATION

NextEra Energy Duane Arnold has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change is required by 10 CFR 73.54 and includes three parts. The first part adds a sentence to the existing operating license condition for Physical Protection. The second part of the proposed change is an Implementation Schedule. These changes are administrative and have no impact on the probability or consequences of an accident previously evaluated.

The third part is the submittal of the Plan for NRC review and approval. The Plan conforms to the template provided in NEI 08-09 Revision 3 (with clarifications presented in this submittal) and provides a description of how the requirements of the Rule will be implemented at DAEC. The Plan establishes the licensing basis for the DAEC/NextEra Energy Duane Arnold Cyber Security Program. The Plan establishes how to achieve high assurance that nuclear power plant digital computer and communication systems and networks associated with the following are adequately protected against cyber attacks up to and including the design basis threat:

1. Safety-related and important-to-safety functions,
2. Security functions,
3. Emergency preparedness functions including offsite communications, and
4. Support systems and equipment which if compromised, would adversely impact safety, security, or emergency preparedness functions.

The Plan is designed to achieve high assurance that the systems are protected from cyber attacks. The Plan describes how plant modifications which involve digital computer systems are reviewed to provide high assurance of adequate protection against cyber attacks, up to and including the design basis threat as defined in the Rule. The proposed change does not alter accident analysis assumptions, add any initiators, or affect the function of plant systems. The Plan is designed to achieve high assurance

that the systems within the scope of the Rule are protected from cyber attacks and has no impact on the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change is required by 10 CFR 73.54 and includes three parts. The first part adds a sentence to the existing OL license condition for Physical Protection. The second part of the proposed change is an Implementation Schedule. Both of these changes are administrative and do not create the possibility of a new or different kind of accident from any previously evaluated.

The third part is the submittal of the Plan for NRC review and approval. The Plan conforms to the template provided by NEI 08-09 Revision 3 (with clarifications presented in this submittal) and provides a description of how the requirements of the Rule will be implemented at DAEC. The Plan establishes the licensing basis for the NextEra Energy Duane Arnold Cyber Security Program. The Plan establishes how to achieve high assurance that nuclear power plant digital computer and communication systems and networks associated with the following are adequately protected against cyber attacks up to and including the design basis threat:

1. Safety-related and important-to-safety functions,
2. Security functions,
3. Emergency preparedness functions including offsite communications, and
4. Support systems and equipment which if compromised, would adversely impact safety, security, or emergency preparedness functions.

The Plan is designed to achieve high assurance that the systems are protected from cyber attacks. The Plan describes how plant modifications which involve digital computer systems are reviewed to provide high assurance of adequate protection against cyber attacks, up to and including the design basis threat as defined in the Rule. The proposed change does not alter accident analysis assumptions, add any initiators, or affect the function of plant systems. The Plan is designed to achieve high assurance that the systems within the scope of the Rule are protected from cyber attacks and does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed change is required by 10 CFR 73.54 and includes three parts. The first part adds a sentence to the existing OL license condition for Physical Protection. The second part of the proposed change is an Implementation Schedule. Both of these

changes are administrative and do not involve a significant reduction in a margin of safety.

The third part is the submittal of the Plan for NRC review and approval. The Plan conforms to the template provided by NEI 08-09 Revision 3 (with clarifications presented in this submittal) and provides a description of how the requirements of the Rule will be implemented at DAEC. The Plan establishes the licensing basis for the NextEra Energy Duane Arnold Cyber Security Program. The Plan establishes how to achieve high assurance that nuclear power plant digital computer and communication systems and networks associated with the following are adequately protected against cyber attacks up to and including the design basis threat:

1. Safety-related and important-to-safety functions,
2. Security functions,
3. Emergency preparedness functions including offsite communications, and
4. Support systems and equipment which if compromised, would adversely impact safety, security, or emergency preparedness functions.

The Plan is designed to achieve high assurance that the systems within the scope of the Rule are protected from cyber attacks. Plant safety margins are established through Limiting Conditions for Operation, Limiting Safety System Settings and Safety limits specified in the Technical Specifications. Because there is no change to these established safety margins, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, NextEra Energy Duane Arnold concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of no significant hazards consideration is justified.

4.3 CONCLUSION

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5. 0 ENVIRONMENTAL CONSIDERATION

The proposed amendment establishes the licensing basis for a Cyber Security Program for DAEC and will be a part of the Physical Security Plan. This proposed amendment will not involve any significant construction impacts. Pursuant to 10 CFR 51.22(c)(12) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 REFERENCES

1. Federal Register Notice, Final Rule 10 CFR Part 73, "Power Reactor Security Requirements," published on March 27, 2009, 74 FR 13926.
2. EA-02-026, "Issuance of Order for Interim Safeguards and Security Compensatory Measures," issued February 25, 2002.

ENCLOSURE 1

ATTACHMENT 1

PROPOSED FACILITY OPERATING LICENSE CHANGE

(MARK-UP)

1 Page Follows

(a) For Surveillance Requirements (SRs) whose acceptance criteria are modified, either directly or indirectly, by the increase in authorized maximum power level in 2.C.(1) above, in accordance with Amendment No. 243 to Facility Operating License DPR-49, those SRs are not required to be performed until their next scheduled performance, which is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment No. 243.

(b) Deleted.

(3) Fire Protection

NextEra Energy Duane Arnold, LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the Duane Arnold Energy Center and as approved in the SER dated June 1, 1978, and Supplement dated February 10, 1981, subject to the following provision:

NextEra Energy Duane Arnold, LLC may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(4) The licensee is authorized to operate the Duane Arnold Energy Center following installation of modified safe-ends on the eight primary recirculation system inlet lines which are described in the licensee letter dated July 31, 1978, and supplemented by letter dated December 8, 1978.

(5) Physical Protection

NextEra Energy Duane Arnold, LLC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Duane Arnold Energy Center Physical Security Plan," submitted by letter dated May 16, 2006.

1 NextEra Energy Duane Arnold, LLC shall fully implement and maintain in effect all provisions of the Commission-approved DAEC/NextEra Energy Duane Arnold, LLC cyber security plan submitted by letter dated November 19, 2009 and withheld from public disclosure in accordance with 10 CFR 2.390.

ENCLOSURE 1

ATTACHMENT 2

PROPOSED FACILITY OPERATING LICENSE CHANGE

(RE-TYPED)

1 Page Follows

(a) For Surveillance Requirements (SRs) whose acceptance criteria are modified, either directly or indirectly, by the increase in authorized maximum power level in 2.C.(1) above, in accordance with Amendment No. 243 to Facility Operating License DPR-49, those SRs are not required to be performed until their next scheduled performance, which is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment No. 243.

(b) Deleted.

(3) Fire Protection

NextEra Energy Duane Arnold, LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the Duane Arnold Energy Center and as approved in the SER dated June 1, 1978, and Supplement dated February 10, 1981, subject to the following provision:

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NextEra Energy Duane Arnold, LLC shall fully implement and maintain in effect all provisions of the Commission – approved DAEC/NextEra Energy Duane Arnold, LLC cyber security plan submitted by letter dated November 19, 2009 and withheld from public disclosure in accordance with 10 CFR 2.390.

ENCLOSURE 2

CYBER SECURITY PLAN IMPLEMENTATION SCHEDULE

Cyber Security Plan Implementation Schedule

Commitment*	Completion Date
1. Establish a cyber security project team	3 months after NRC approval of Cyber Security Plan
2. Establish and maintain cyber security policies	6 months after NRC approval of Cyber Security Plan
3. Identify Critical Digital Assets (CDAs) within scope of 73.54(a)	10 months after NRC approval of Cyber Security Plan
4. Review and validate CDA connections	24 months after NRC approval of Cyber Security Plan
5. Complete baseline assessments (Operational Security Controls, Management Security Controls, Technical Security Controls) and schedule station mitigation actions	24 months after NRC approval of Cyber Security Plan
6. Implement defensive architecture	30 months after NRC approval of Cyber Security Plan
7. Implement cyber security program, procedures, and training	24 months after NRC approval of Cyber Security Plan
8. Perform vulnerability and effectiveness analysis, and document gaps in condition reporting program	36 months after NRC approval of Cyber Security Plan

*Any commitment changes will be managed in accordance with NEI 99-04, "Guidelines for Managing NRC Commitment Changes."