

Byron Station, Units 1 and 2

BASELINE INSPECTION PLAN

Evaluations of Changes, Tests, and Experiments (Triennial Review)

Inspection Report Number 05000454/2017009; 05000455/2017009

Inspection Objectives


This inspection fulfills the baseline inspection program requirements for the triennial review of Evaluations of Changes, Tests, and Experiments per Inspection Procedure (IP) 71111.17T.

The inspection objectives are: (1) Verify that when changes, tests, or experiments were made, evaluations were performed in accordance with 10 CFR 50.59; (2) Verify that the licensee has appropriately concluded that the change, test or experiment can be accomplished without obtaining a license amendment; (3) Verify that safety issues related to the changes, tests, or experiments have been resolved; (4) For the changes, tests, or experiments that the licensee determined that evaluations were not required, verify that the licensee's conclusions were correct and consistent with 10 CFR 50.59.

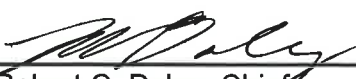
Onsite Inspection Dates: May 15 - 19, 2017

Applicable Inspection Procedure

IP 71111-17T "Evaluations of Changes, Tests, and Experiments," effective date 01/01/2017.

Prepared By:  Date: 5-11-17
Dariusz Swarc, Senior Reactor Inspector
Engineering Branch 3, DRS

Reviewed By:  Date: 5/11/17
Eric R. Duncan, Chief
Branch 3, DRP

Approved By:  Date: 5/11/17
Robert C. Daley, Chief
Engineering Branch 3, DRS

INSPECTION PLAN DETAILS

I KEY INFORMATION

Plant Address:

Exelon Generation Company, LLC
Byron Station, Units 1 and 2
4450 N German Church Rd
Byron, IL 61010

***Note:** Plant extension numbers can be reached by dialing (815) 406 plus the extension number.

Plant Phone Number(s):

(815) 406-XXXX

ONSITE EMERGENCY NUMBER: 2211

Office Location & Plant Phone Number for NRC 50.59 Inspection Team

White Pines Room (Old Meeting Room 1 Back)

Plant Extension Number 2407*

NRC INSPECTORS:

50.59 Inspection Team

<u>Name</u>	<u>Position</u>	<u>Phone Number</u>	<u>Internet Address</u>
Dariusz Szwarc	Senior Engineering Inspector, Lead	(630) 829-9803	Dariusz.Szwarc@nrc.gov
George M. Hausman	Senior Reactor Inspector	(630) 829-9743	George.Hausman@nrc.gov
Atif A. Shaikh	Senior Reactor Inspector	(630) 829-9824	Atif.Shaikh@nrc.gov

SENIOR RESIDENT INSPECTOR (SRI) OFFICE STAFF

<u>Name</u>	<u>Position</u>	<u>Phone Number</u>	<u>Internet Address</u>
James McGhee	Senior Resident Inspector (SRI)	(815) 234-5451	James.McGhee@nrc.gov
Christopher Hunt	Resident Inspector (RI)	(815) 234-5452	Christopher.Hunt@nrc.gov
Maureen Burger	Office Assistant (M/Th)	Plant Extension: 2850*	Maureen.Burger@nrc.gov

LICENSEE CONTACTS:

Plant Extension (Offsite):

Response Team Location:

(815) 406-XXXX*

<u>Name</u>	<u>Position</u>	<u>Phone Number / Plant Ext.</u>	<u>Internet Address</u>
Zoe Cox	Principal Regulatory Engineer	815-406-3035	zoe.cox@exeloncorp.com
Kelly Zlevor	Engineering Lead	815-406-2237, 3389	
Jon Garriott	Sr. Electrical Engineering Analyst (Szwarc Counterpart)	815-406-2994	
Bhavin Parikh	Mechanical Engineer (Shaikh Counterpart)	815-406-3307	
Dustin Whittaker	Mechanical Engineer (Hausman Counterpart)	815-406-3308	

II Detailed Inspection Schedule

Inspection Preparation at Region III Offices:

May 1 – 12, 2017

Onsite Inspection Time:

May 15 - 19, 2017

Preparation of Inspection Report:

Inputs Due: May 26, 2017

Draft Completed: June 9, 2017

Management Review and Approval Completed: June 30, 2017

Inspection Report Must Be Issued By July 3, 2017 (45 days from exit)

III Specific Inspection Activities:

A copy of the specific documents requested will be available to the inspectors. If during the preparation week(s) additional information is determined to be necessary, this will be conveyed to the licensee as expeditiously as possible.

To assist the inspectors in their review of 50.59 evaluations and screenings, plant procedures should be reviewed to familiarize inspectors with the licensee's modification, 50.59, and corrective action processes. The required sample size is 18 – 37 evaluations, screenings and/or applicability determinations. Each inspector should aim to review 3 evaluations and 6 screenings and/or applicability determinations. In addition, each inspector should review 3 – 5 condition reports related to 50.59.

MILESTONES

Inspection Effort during Week of February 13, 2017 – May 26, 2017

Date	Responsibility	Work Task
March 31, 2017	Szwarc	Provide access to licensee documents for review to team
April 14, 2017	Team	Provide the lead inspector with a final list of documents for review during the final prep weeks and onsite week.
April 28, 2017	Szwarc	Issue Inspection Plan
May 8, 2017	All	Team Meeting, if possible
My 1 – May 12, 2017	All	Team Prep. Additionally, (identify 3-5 CRs from CR list in first RFI CD to review during onsite week).
May 15 - 19, 2017	All	Onsite Inspection
May 22 – 26, 2017	All	Inspection Documentation
June 9, 2017	Szwarc	Draft Report Completed
June 30, 2017	Daley	Management Review/Approval Completed

Attachments A and B

Attachment A contains a list of documents/items for review as well as team expectations for this inspection. It is expected that each inspector review Attachment A in its entirety. Attachment B is for information only and contains a list of questions to consider if a modification is reviewed.

Inspection

- A. Inspect 50.59 evaluations and screenings in accordance with Section 02.02.a - c of IP 71111.17T.
- B. Verify the licensee is identifying problems related to Title 10, *Code of Federal Regulations*, Part 50, Section 59, "*Changes, tests, an experiments,*" to evaluate applicability determinations, screenings and evaluations. Verify these issues and problems have been entered into their corrective action program.

IV RITS and Time Charge Information

Inspection time is to be charged to IP 71111.17T

Total Inspection Hours (BI) 86 to 106 hours

Inspection Hours per Inspector 29 to 35 hours

Authorized Overtime 4 Hours (At supervisor's discretion)

V Documentation of Findings

Any findings resulting from the inspection will be reviewed under the significance determination process (SDP) and follow IMC 609 requirements as appropriate. The lead inspector will provide an issue tracking form that the inspector who identified an issue is expected to complete before the technical debrief for any more than minor violations.

The report will be prepared in accordance with the guidance in MC 0612. The team lead will send out a copy of the inspection report template to use for documentation of documents reviewed and any findings identified.

Input will primarily consist of a list of the documents reviewed, unless a finding (put through at least Phase I of the SDP), a violation, or extenuating circumstances exist. Issues which the inspector deems meet the criteria for report write-ups shall be discussed with the lead Inspector prior to preparing an input. Corrective action documents generated as a result of the inspector's questions shall be listed separately from corrective action documents that were in the licensee's system prior to the inspection. Inputs are to be e-mailed to the lead inspector within five working days of the exit.

VI Interface and Coordination Meetings

Meetings with the Licensee

Entrance Meeting: May 15, 2017, at 10:00 AM
Prairie View Conference Room

Technical Debrief: May 19, 2017 at 1:00 PM
Prairie View Conference Room

Exit Meeting: June 1, 2017, at 1:30 PM
Prairie View Conference Room (Will be held via telephone if there are no findings).

Daily debriefs with the licensee will be held at 3:00 PM.

Internal Team Meetings

We will have a brief team meeting each day (2:30 pm), if needed, to discuss inspection findings, status of inspection, outstanding questions to the licensee or NRC, and any additional licensee information requests.

VII LOGISTICS

A. Site Information

Name: Byron Station, Units 1 and 2
Utility: Exelon Generating Company, LLC
Location: Byron, IL
NSSS: Westinghouse 4-Loop
Containment: PWR-DRYAMB

B. Travel

Byron is approximately 75 miles from the Region III office.

C. Per Diem

Per Diem for the area around Byron is \$91/day for lodging (excluding taxes) and \$51/day for meals and incidental expenses.

D. Site Access

Team members will receive site-specific site access training and will be processed for unescorted access.

E. Inspection Location

The inspection team will be located in the White Pines Room (Old Meeting Room 1 Back). The licensee will provide a computer and printer access for accessing licensee documents. The inspectors will obtain login information from the resident inspectors. Additionally, the licensee will provide wireless internet access for the inspection team.

F. Hours of Work

Inspectors are expected to generally adhere to their normal working hours. Significant changes should be coordinated with the lead inspector but will be accommodated to the extent possible.

ATTACHMENT A

Documents/Items for Review/Team Expectations

Screenings and 50.59 Evaluations

Recreate the licensing basis. While the change evaluation should list the applicable license basis documents, often many are missing and may never have been looked at by the licensee.

Some or all of the following documents could be applicable depending on the scope of the evaluation being reviewed:

1. UFSAR
2. Original FSAR
3. SER and supplements
4. Operational procedures
5. Technical Specifications
6. Technical Requirements Manual
7. Technical Specification Bases
8. Generic Correspondence - Generic Letters, Orders, etc.

As a minimum, each inspector should be able to understand and explain why each screening reviewed met the screening criteria in NEI 96-07.

ATTACHMENT B

If a Modification Is Reviewed, Questions To Consider

Onsite Modification Review Questions

1. Why was this modification required?
2. Describe the modification and address: physical changes made, boundaries of modification, material changes or substitutions, drawings and plant procedures affected.
3. Does this modification address/resolve the need which prompted the modification?
4. What are the system functions which could possibly be affected by this modification?
5. Were the applicable codes and standards applied properly for the modification?
6. Were applicable regulatory requirements (FSAR, Regulatory Guides, Technical Specifications, etc.) adhered to and/or changed for the modification?
7. What post modification acceptance testing is identified for this modification and is it adequate to confirm component/system safety functions?
8. Are there environmental aspects not addressed in the modification (e.g. fire, flooding, seismic, HELB or post-LOCA steam environments).
9. Have components/materials used been procured using appropriate requirements?
10. What calculations were performed to support this modification? (Identify title, description)
11. Is the list of calculations complete or should more calculations have been completed?
12. For each calculation selected for review:
 - a. What are the assumptions identified in the calculation?
 - b. Have input values been adequately confirmed and/or verified by the licensee?
 - c. Is there a simplified hand calculation which can be done to independently confirm the licensee's conclusions? If so, are the licensee conclusions correct?
 - d. Have the calculation results been incorporated into procedures or test acceptance criteria as applicable?
13. Some modifications can affect a variety of plant license and design basis documents. Depending upon the complexity of the modification, many of the items could be affected. The following is a list of items that an inspector may look at during an inspection
 - a. Support Equipment
 - b. Calculations
 - c. TS and TS Bases
 - d. TRM
 - e. USAR
 - f. SER
 - g. Operations procedures
 - h. Post-modification testing
 - i. Vendor Manual - consistent with Calculations and Maintenance

ATTACHMENT B

- j. Engineering Interfaces
 - i. Fire Protection
 - ii. Seismic
 - iii. EQ
- k. Design Specifications
- l. HVAC effectiveness
- m. Safety Analyses

For the purposes of this inspection, it is expected that each inspector, based upon his/her own experience, determine the extent to which he/she looks at a modification. The list above is a tool to help focus the inspection efforts.