



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200  
ATLANTA, GEORGIA 30303-1200

March 3, 2020

Mr. Thomas D. Ray  
Site Vice President  
Duke Energy Carolinas, LLC  
McGuire Nuclear Station  
12700 Hagers Ferry Road  
Huntersville, NC 28078-8985

SUBJECT: ANNUAL ASSESSMENT LETTER FOR MCGUIRE NUCLEAR STATION UNITS 1  
AND 2 - NRC INSPECTION REPORT 05000369/2019006 AND 05000370/2019006

Dear Mr. Ray:

The NRC has completed its end-of-cycle performance assessment of McGuire Nuclear Station, Units 1 and 2, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2019, through December 31, 2019. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. The NRC concluded that overall performance at your facility preserved public health and safety.

The NRC determined the performance at McGuire Nuclear Station, Units 1 and 2, during the most recent quarter was within the Licensee Response Column, the highest performance category of the NRC's Reactor Oversight Process (ROP) Action Matrix, because all inspection findings had very low safety significance (i.e., Green), and all PIs were within the expected range (i.e., Green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through December 31, 2021. This updated inspection plan now includes planned security inspections which were formerly transmitted under separate correspondence. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. You should be aware that the agency is pursuing potential changes to the ROP, including changes to engineering inspections (SECY-18-0113, "Recommendations for Modifying the Reactor Oversight Process Engineering Inspections"), and other changes to the baseline inspection program described in SECY-19-0067, "Recommendations for Enhancing the Reactor Oversight Process." Should these changes to the ROP be implemented, the engineering and other region-based inspections are subject to change in scope, as well as schedule. The inspections listed during the last 12 months of the inspection plan are tentative and may be revised. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

Additionally, during this period the NRC will schedule an additional inspection per a revised version Temporary Instruction (TI) 2515/194, "Inspection of the Licensee's Implementation of Industry Initiative Associated with the Open Phase Condition Design Vulnerability in Electrical Power Systems (NRC Bulletin 2012-01)" for any sites who elect to implement the guidance of

the Industry Initiative on Open Phase Condition, Revision 3 (ML19163A176), which included an option for relying on annunciation and operator manual actions instead of automatic protective features to isolate a power supply affected by an open phase condition. Licensees will be individually notified when the NRC schedules these inspections.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 404-997-4611 with any questions you have regarding this letter.

Sincerely,

**/RA/**

Frank Ehrhardt, Chief  
Reactor Projects Branch 1  
Division of Reactor Projects

Docket Nos.: 50-369, 50-370  
License Nos.: NPF-9, NPF-17

Enclosure: McGuire Inspection/Activity Plan  
(03/01/2020 – 12/31/2021)

cc distribution via ListServ

Letter to Thomas D. Ray from Frank Ehrhardt dated March 3, 2020

SUBJECT: ANNUAL ASSESSMENT LETTER FOR MCGUIRE NUCLEAR STATION UNITS 1  
AND 2 - NRC INSPECTION REPORT 05000369/2019006 AND 05000370/2019006

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NAME	J Worosilo	F Ehrhardt			
DATE	02/28/2020	02/28/2020			

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# IP 22 Inspection Activity Plan Report

## McGuire

03/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>UNIT 2 IN-SERVICE INSPECTION</b>						1
2	03/23/2020	03/27/2020	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
<b>RP OCCUPATIONAL RAD SAFETY BASELINE INSPECTION</b>						3
1, 2	03/23/2020	03/27/2020	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/23/2020	03/27/2020	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/23/2020	03/27/2020	IP 71124.04	000728	Occupational Dose Assessment	
1, 2	03/23/2020	03/27/2020	IP 71124.05	000729	Radiation Monitoring Instrumentation	
1, 2	03/23/2020	03/27/2020	IP 71151	000746	Performance Indicator Verification	
<b>SECURITY BASELINE INSPECTION</b>						3
1, 2	05/18/2020	05/22/2020	IP 71130.04	000736	Equipment Performance, Testing, and Maintenance	
1, 2	05/18/2020	05/22/2020	IP 71130.07	000739	Security Training	
<b>POST-APPROVAL LR PHASE 2</b>						5
1, 2	06/01/2020	06/05/2020	IP 71003	000687	Post-Approval Site Inspection for License Renewal	
1, 2	06/15/2020	06/19/2020	IP 71003	000687	Post-Approval Site Inspection for License Renewal	
<b>MCGUIRE REQUAL INSPECTION</b>						2
1, 2	06/15/2020	06/19/2020	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance	
<b>DESIGN BASES ASSURANCE INSPECTION (PROGRAMS)</b>						3
1, 2	06/22/2020	06/26/2020	IP 71111.21N.02	001645	Design-Basis Capability of Power-Operated Valves Under 10 CFR 50.55a Requirements	
1, 2	07/06/2020	07/10/2020	IP 71111.21N.02	001645	Design-Basis Capability of Power-Operated Valves Under 10 CFR 50.55a Requirements	
<b>SECURITY BASELINE INSPECTION</b>						3
1, 2	07/27/2020	07/31/2020	IP 71130.02	000734	Access Control	
1, 2	07/27/2020	07/31/2020	IP 71130.05	000737	Protective Strategy Evaluation	
1, 2	07/27/2020	07/31/2020	IP 71130.09	001656	Security Plan Changes	
1, 2	07/27/2020	07/31/2020	IP 71151	001338	Performance Indicator Verification	
<b>PROBLEM IDENTIFICATION AND RESOLUTION</b>						4
1, 2	08/10/2020	08/14/2020	IP 71152B	000747	Problem Identification and Resolution	
1, 2	08/24/2020	08/28/2020	IP 71152B	000747	Problem Identification and Resolution	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

Enclosure

# IP 22 Inspection Activity Plan Report

**McGuire**

03/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>UNIT 1 IN-SERVICE INSPECTION +RVH</b>						<b>2</b>
1	09/21/2020	09/25/2020	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
<b>EMERGENCY PREPAREDNESS PROGRAM INSPECTION</b>						<b>2</b>
1, 2	09/21/2020	09/25/2020	IP 71114.02	000717	Alert and Notification System Testing	
1, 2	09/21/2020	09/25/2020	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
1, 2	09/21/2020	09/25/2020	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
1, 2	09/21/2020	09/25/2020	IP 71114.05	000720	Maintenance of Emergency Preparedness	
1, 2	09/21/2020	09/25/2020	IP 71151	001397	Performance Indicator Verification	
<b>MATERIAL CONTROL &amp; ACCOUNTING</b>						<b>1</b>
1, 2	11/30/2020	12/04/2020	IP 71130.11	000742	Material Control and Accounting (MC&A)	
<b>DESIGN BASES ASSURANCE INSPECTION (TEAMS)</b>						<b>8</b>
1, 2	01/25/2021	01/30/2021	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	
1, 2	02/08/2021	02/12/2021	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	
<b>NFPA 805 TRIENNIAL FIRE PROTECTION INSPECTION</b>						<b>4</b>
1, 2	03/22/2021	03/26/2021	IP 71111.05XT	000697	Fire Protection - NFPA 805	
1, 2	04/05/2021	04/09/2021	IP 71111.05XT	000697	Fire Protection - NFPA 805	
<b>TARGET SET INSPECTION</b>						<b>2</b>
1, 2	04/05/2021	04/09/2021	IP 71130.14	000743	Review of Power Reactor Target Sets	
<b>SECURITY BASELINE INSPECTION</b>						<b>1</b>
1, 2	07/12/2021	07/16/2021	IP 71130.02	000734	Access Control	
1, 2	07/12/2021	07/16/2021	IP 71130.09	001656	Security Plan Changes	
1, 2	07/12/2021	07/16/2021	IP 71151	001338	Performance Indicator Verification	
<b>TRIENNIAL HEAT SINK PERFORMANCE</b>						<b>1</b>
1, 2	07/19/2021	07/23/2021	IP 71111.07T	000700	Heat Sink Performance	
<b>RP PUBLIC RAD SAFETY INSPECTION</b>						<b>2</b>
1, 2	07/19/2021	07/23/2021	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
1, 2	07/19/2021	07/23/2021	IP 71124.07	000731	Radiological Environmental Monitoring Program	
1, 2	07/19/2021	07/23/2021	IP 71124.08	000732	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	

This report does not include INPO and OUTAGE activities.  
 This report shows only on-site and announced inspection procedures.

# IP 22 Inspection Activity Plan Report

## McGuire

03/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>RP PUBLIC RAD SAFETY INSPECTION</b>						2
1, 2	07/19/2021	07/23/2021	IP 71151	000746	Performance Indicator Verification	
<b>EMERGENCY PREPAREDNESS EXERCISE</b>						5
1, 2	07/25/2021	08/07/2021	IP 71114.01	000716	Exercise Evaluation	
1, 2	07/25/2021	08/07/2021	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
1, 2	07/25/2021	08/07/2021	IP 71151	001397	Performance Indicator Verification	
<b>UNIT 2 IN-SERVICE INSPECTION +SG</b>						2
2	09/13/2021	09/17/2021	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
<b>RP OCCUPATIONAL RAD SAFETY INSPECTION</b>						2
1, 2	09/13/2021	09/17/2021	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	09/13/2021	09/17/2021	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	09/13/2021	09/17/2021	IP 71151	000746	Performance Indicator Verification	