

# CHARTER FOR IMPROVING THE EFFECTIVENESS AND EFFICIENCY OF THE FUEL CYCLE INSPECTION PROGRAM

This draft charter has been prepared and is being released to support a public discussion on the NRC staff's initiative to conduct a holistic assessment of the Fuel Cycle inspection program. The intention of releasing this draft charter is to solicit stakeholder feedback on the purpose, tasking and proposed project plan sections of this document. The staff will modify the contents of this charter as appropriate, and will issue a final version based on stakeholder feedback.

## I. BACKGROUND:

The fuel cycle inspection program applies to operating fuel cycle facilities licensed by the U.S. Nuclear Regulatory Commission (NRC) including nuclear fuel fabrication facilities, uranium enrichment plants, and uranium conversion plants. Inspection Manual Chapter (IMC) 2600 "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program" defines the inspection program. The program is designed to determine whether licensed fuel cycle facilities are operated safely and securely, in accordance with regulations and to identify indications of declining safety or safeguards performance. The program defines the minimum core inspection effort to be performed at each type of fuel cycle facility and provides guidance for reactive, supplemental, and generic safety issue inspections.

The core inspection program is implemented through inspection procedures (IPs). Inspection procedures identify requirements that the inspectors must consider while evaluating the associated areas related to safety and safeguards. Each IP provides a resource estimate to complete the inspection requirements of that procedure. The core inspections for each type of facility are specified in Appendix B of IMC 2600.

Resident inspectors are assigned to Category I fuel cycle facilities. The resident inspection program is described in more detail in Appendix C. However, a resident inspector may occasionally perform inspections other than resident inspections in coordination with regional management if he/she is qualified to do so.

The material control and accounting portion of the fuel cycle inspection program is referenced in IMC 2600 as part of the program description and included in the resource estimates specified in Appendix B of IMC 2600. IMC 2683 "Material Control and Accounting Inspection of Fuel Cycle Facilities" defines objectives for the material control and accounting inspections and includes the list of IPs.

## II. PURPOSE:

Charter a working group (WG) to conduct a holistic assessment of the Fuel Cycle inspection program for the purpose of improving the effectiveness and efficiency of the program inspections in areas of safety and safeguards. The working group should look for areas of transformation and innovation in the Fuel Cycle inspection program while adhering to the key principles that guide the manner in which we conduct our work and make decisions, particularly with respect to the concept of "reasonable assurance of adequate protection."

Accordingly, the WG will solicit and assess feedback from internal and external stakeholders (public, industry, etc.) on any proposed changes to the inspection program. The working group will perform a review of the suite of IPs referenced in IMC 2600 and IMC 2683 to determine if gaps and/or overlaps of inspection areas exist and to make recommendations on areas of enhancements. Additionally, the WG will leverage, as appropriate, operating experience and

inspection data to determine whether the inspection program guidance applies the appropriate focus on areas with demonstrated performance issues and areas that provide the greatest safety benefit to determine that a facility is operating safely and securely in accordance with regulatory requirements. The working group should consider ways to make all phases of the inspection program smarter (scheduling, preparation, inspection, enforcement, documentation, etc.). Finally, the WG will document any planned recommendations to the Fuel Cycle inspection program.

### **III. TASKING:**

- A. Gather feedback from internal and external stakeholders and consider that feedback for the development of recommendations to the Fuel Cycle inspection program. In addition, conduct targeted engagement sessions with Region II inspectors among the different communities of practice who have experience implementing the inspection procedures and consider their feedback.
- B. Assess the IPs referenced in IMC 2600 and IMC 2683 for gaps, if any, in inspection guidance and areas of overlap or redundancy taking into consideration current the following factors: operating experience, inspection data, and changes to the program as a result of the Westinghouse Lessons Learned and risk insights. The assessment should also evaluate the area of inspection requirements and guidance to evaluate recommendations to enhance the clarity of the guidance to meet the program requirements.
- C. Determine if more efficient and effective ways exist to accomplish agency goals while further integrating risk-informed insights. Consider, as a minimum, the following:
  - 1. Inspection guidance structure including scope and frequency of inspections;
  - 2. Overlap areas between the IPs;
  - 3. Gaps in the IPs; and
  - 4. Inspection structure (including shift of inspection effort from region to residents).
- D. Develop recommendations for changes to current fuel cycle inspection program. For each recommendation identify the pros and cons of implementation. Consider the following aspects as applicable:
  - 1. Mission impact (degree to which the option would deliver confidence that the objectives are met in support of reasonable assurance of adequate protection);
  - 2. Rigor and independence of NRC inspection conclusions;
  - 4. Resident and regional inspector inspection scope;
  - 5. Impact on regional ability to respond to events and emergent issues;
  - 7. Flexibility and suitability of program to meet futures need, such as advance reactors and medical isotopes;
  - 8. Reduction on inspection procedures infrastructure (reduction in the number of inspection procedures); and
  - 9. Resource reduction and budgetary assumptions.
- E. Develop and document in a report, conclusions and recommendations from the review which includes specific recommendations which will improve the effectiveness and efficiency of the inspection program. The plan for collaboration with stakeholders and the timeline for implementation are shown in the schedule below.

## V. WORKING GROUP MEMBERSHIP:

Mike King, NMSS/FCSE, Director (Sponsor)  
LaDonna Suggs, RII/DFFI, Director (Sponsor)  
Margie Kotzalas, FCSE/LOB, (Chair)  
James Rubenstone, FCSE/MCAB  
Chief, DFFI/Projects Branch 1  
Eric Michel, DFFI/Projects Branch 2  
Jonathan Marcano, FCSE/LOB, (Technical Lead)

## VI. DURATION:

The charter will remain until issuance of report requested in Section III.E.

## VII. LEVEL OF EFFORT:

Periodic meetings (or teleconferences) of the working group will be coordinated approximately monthly by the Chair. These meetings may be slightly more frequent during project startup and wrap-up. In addition, one or two public meetings may be scheduled. These meetings may require travel to either Headquarters or to one of the Regional offices. Active participation and meeting attendance is expected of members.

## VIII. CHARTER MODIFICATIONS:

The chair of the WG will obtain approval from the WG Sponsors prior to making substantive change to the charter tasking or desired outcome.

## IX. PROPOSED PROJECT PLAN:

Activity	Target Date
<b>Introduction of Initiative at the NRC Regulatory Information Conference</b>	03/13/19
<b>Issue Charter</b>	N/A
<b>Conduct Public Meeting #1:</b> Discuss the NRC Charter, communicate ideas for collaboration, and future meetings.	April 3, 2019
Evaluation of Gaps and Overlaps	May 31, 2019
<b>Conduct Public Meeting #2:</b> Present draft results of gaps and overlaps assessment, present and gather preliminary ideas for further consideration.	July, 2019
Develop draft report with identification of enhancements to program. Develop slides from draft report to present at Public Meeting #3.	September 2019
<b>Conduct Public Meeting #3:</b> Discuss draft proposed enhancements to inspection program and gather feedback on proposed enhancements. Discuss timeline for implementation.	September 2019
Issuance of report	November 2019
Implementation of enhanced program	Calendar Year 2020-2021