



## **POLICY ISSUE** **(Information)**

May 09, 2023

SECY-23-0039

**FOR:** The Commissioners

**FROM:** Scott M. Morris  
Acting Executive Director for Operations

**SUBJECT:** MANAGEMENT DIRECTIVE 8.2, "NRC INCIDENT RESPONSE PROGRAM" AND INCIDENT RESPONSE MANUAL CHAPTER 200, "INCIDENT RESPONSE PLAN"

**PURPOSE:**

This paper serves to summarize, for the Commission, key modifications made to the U.S. Nuclear Regulatory Commission's (NRC's) Incident Response (IR) Program and how the changes and supporting response procedures are reflected in Management Directive (MD) 8.2, "NRC Incident Response Program," and Incident Response Manual Chapter (IRMC) 200, "Incident Response Plan." The paper includes a discussion of the programmatic challenges that prompted the need to modify the IR Program and how the application of these changes improved the Program's overall efficiency and effectiveness, clarified the chain of command, and further refined response communications.

**SUMMARY:**

This paper provides to the basis for why the agency's IR Program was modernized and the justification for these changes. It examines areas in which the IR Program was challenged, why those challenges existed, and how those challenges were addressed. Specifically, the paper discusses how undertaking these transformational changes has enhanced the agency's ability to manage, staff, and efficiently execute a response. The paper describes the Chair and the Commission's unchanged authorities in the IR Program and how the reoriented response structure supports those authorities while effectively and reliably meeting the agency's IR missions (see Enclosure 1 for the NRC's IR organizational chart).

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Enclosure 4 transmitted herewith contains  
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## BACKGROUND:

The objectives of the NRC's IR Program are to provide timely and independent oversight of the licensee's response, accurately assess the event conditions, coordinate response activities with response partners, and share assessment and response information with the public, media, and other domestic and international stakeholders. The NRC staff modernized the IR Program to address inefficiencies inherent in the response structure identified during Program implementation and lessons-learned discussions among agency response personnel. The NRC staff established a multidisciplinary working group<sup>1</sup> led by the Office of Nuclear Security and Incident Response (NSIR) and included members from each regional office. The working group performed a holistic and systematic review of the Program, with a focus on identifying larger structural and programmatic challenges that could not be properly addressed merely through the use of the IR corrective action program. The working group's review revealed several areas where the Program would be better served through the adoption of a more modernized and flexible response approach. These areas were binned into three categories: (1) items that challenged the sustainability and functionality of the Program; (2) the response command-and-control structure; and (3) the complex geographically-based staffing paradigm. The discussion below addresses each of these areas and the resulting improvements made to the Program.

## DISCUSSION:

These discussion topics provide details on elements of the agency's Program that have been updated and the justification for these changes. The most noteworthy change was the creation of a shift-work supervisory lead (titled Response Director) who manages overall agency response operations. None of the Program changes implemented alter the Chair's or Commission's IR authorities; rather, they reorient the response structure itself to better support the Chair's IR authorities and the objectives of the Program.

### Sustainability and Functionality of NRC's Response to Events

As the working group assessed what they determined to be notable design flaws related to the sustainability of a protracted response, the group considered the lessons learned from the agency's response to Fukushima, the 2011 North Anna earthquake, and the agency's participation in the Southern Exposure 2015 multi-day Federal interagency exercise. During the NRC's response to and participation in these notable events, the agency faced challenges when implementing its standard staffing blueprint for an agency response. Specifically, the rigid structure of the agency's standard response staffing blueprint lacked the necessary flexibility to sustain a long-term response operation. This challenge became particularly evident once an event response reached a certain threshold that required senior NRC leadership<sup>2</sup> staffing at headquarters on a continuous basis. This required the presence of approximately 8-10 senior executives, including the Chair and the Executive Director for Operations (EDO), at all times, in the Headquarters Operations Center (HOC). This staffing model had been adopted over many years to meet the needs for staffing time-restricted simulations associated with exercise participation rather than the types of protracted, complex responses that would likely be required in response to a "real-world" event. The limits of this staffing model were most apparent

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<sup>1</sup> [Incident Response Reorganization Project Working Group Charter](#) (Agencywide Document Access and Management System Accession No. ML23053A191)

<sup>2</sup> Senior NRC Leadership, in the context of incident response, refers to the Chair, Commissioners, the EDO, General Counsel, relevant Office Directors, Regional Administrators, and other managers whose participation is deemed necessary.

when the agency was faced with the real-world response to Fukushima Dai-chi events in 2011. NRC leadership quickly realized that the response command-and-control structure in place in 2011 was both unsustainable and unnecessary. For example, during the Fukushima response, soon after the NRC response began, the decision was made to allow the operational response leader (i.e., formerly the Executive Team (ET) director) to dictate the staffing needs for a given operational period. This flexibility in approach was the basis for initiating the development of the new Program which was ultimately implemented in 2020.

As for the inefficiency and cumbersome nature of the previous response programs' functionality, that structure consisted of three, largely independent response organizations (i.e., the regional base team, the headquarters team, and the site team) all separately attempting to meet the same response mission. This response configuration not only created a burden for long-term staffing, but also produced an ineffective and confusing decision-making process.

### Command and Control Structure

In its review, the working group determined that response command-and-control structure led to leadership ambiguity, principally due to a multi-layer command-and-control composition that spanned multiple geographic locations. Theoretically, when the NRC's IR Program was expanded to its maximum level (i.e., full activation), the command structure was spread among the relevant regional office's IR center, the HOC, and the forward-deployed staff at the incident location. Each of these served as the agency's primary response locations, focused on achieving the same overall response mission. However, they largely operated independent of one another and had their own response structure. This configuration led to an unnecessarily complex chain of command, which lacked synchronization and often resulted in a duplication of response efforts. For example, under the previous response paradigm, each response location would perform dose assessment activities independent of one another. These assessment activities would go largely uncoordinated until the results were presented to leadership. This construct often resulted in confusion over minor misaligned assumptions between the locations, often creating concerns over the assessments' accuracy and causing delays.

As a remedy, the working group looked to the National Incident Management System's (NIMS's) incident command system (ICS) structure as a guidepost for a more holistic response structure. In doing so, three distinct benefits of the NIMS/ICS approach were immediately recognized. First, NIMS/ICS is a simplified command-and-control structure where every individual has a designated supervisor within one response organization versus multiple response organizations with shared missions. Second, NIMS/ICS provides for a more functional-based structure (e.g., reactor safety and/or dose assessment) versus a geographical-based structure (e.g., headquarters or regional base team). Lastly, the NIMS/ICS structure includes provisions for naming conventions and organizational alignment that would be consistent with other Federal agencies, State and local governments, and private sector response partners.

NSIR's adoption of the NIMS/ICS's streamlined command-and-control structure in the updated IR Program has resulted in improved internal and external coordination, general efficiency, scalability, and flexibility as demonstrated by recent NRC responses to real world events (e.g., Hurricane Ida and its impact on the Waterford nuclear station) and "full participation" exercises. Additionally, NSIR's adherence to the key tenets of ICS has allowed NSIR to reduce the number of senior leaders necessary for effective agency IR without jeopardizing the agency's overall response effectiveness.

### Geographical-Based Staffing Paradigm

The working group determined that the agency's process for determining its response posture (i.e., normal, monitoring, activation, and expanded activation modes) was another complexity of the prior IR Program. The response postures determined how the agency would staff an event response, including which response locations would lead the response and the requisite level of staff and leadership to support that response. While application of these response modes worked well for staffing some events, ultimately the working group concluded that they lacked sufficient flexibility and scalability, and artificially imposed large influxes in staffing irrespective of the actual demand. Additionally, during transitions between modes, operational control of the event response was complicated and often resulted in an inordinate amount of time to complete the transitions, rather than responding to the event itself. Further, the NRC's previous mode structure was inconsistent with that of peer governmental response organizations, which often made it difficult for NRC staff to effectively characterize the agency's response posture during response-related coordination discussions. Through much analysis and benchmarking of similar response organizations, the working group determined that a more simplified structure was needed; specifically, a structure that allows NRC response leadership (e.g., response director, command staff, section chiefs) to freely determine the needs of an event response and to scale it accordingly. This simplification also allows for the NRC response staff to communicate more easily and clearly to key stakeholders.

### Chair, Commission and EDO Roles During Event Response

As stated previously, the NRC's IR Program changes were intended to modernize processes, streamline the organizational framework, and improve communication and planning methods, without modifying the fundamental response mission and leadership authorities.

No changes were proposed or made to the Chair's or the Commission's authorities. Rather, the changes made to the Program allow for a more flexible structure such that the Chair and the Commission remain fully informed of the agency's response activities and can adjust their engagement based on the significance of an event. For example, in response to a small scope event, the Chair or the Commission may desire to simply remain informed of the agency response posture and event status, and only become actively involved should the event and agency's response warrant escalation. Plainly stated, regardless of the level or complexity of an event response, the Chair and the Commission can determine their level of involvement in the agency's response operations. These engagements will typically come in the form of briefings and exchanges with the EDO or the on-shift Response Director.

Under the modified IR Program, the Chair, along with the EDO, remain the foundational leadership when the agency is responding to an incident or event. However, rather than the Chair and the EDO fulfilling response positions that require their continuous presence (e.g., the former Executive Team director and deputy positions), they now have the freedom to engage in the response as they deem most appropriate. Regardless of the severity of the event, while the agency's IR Program remains activated, the Response Director will ensure that clear expectations are established for senior leadership engagement, as desired by the Chair, the Commission, and the EDO. The Response Director and command staff (i.e., public information officer, liaison officer, and senior agency representative) will ensure those expectations are fulfilled.

Consistent with the changes to the IR Program, the staff has made (and is making) conforming changes to the IR training and exercise program. These improvements include an enriched training experience and a series of adapted leadership exercises designed specifically for the Chair, the Commission, and the EDO. These exercises will be targeted at promoting a common understanding of the roles and responsibilities of operational response leaders and expectations of NRC senior leadership. Additionally, internally driven, full-scope participation exercises will be introduced as part of the improved training experience, allowing for customizable scenarios that account for a range of event types, focusing on the response leadership roles, and maximizing the experience gained by those participants. These new training exercise enhancements are expected to benefit both the advancement of the response program and the training of staff responders.

#### Means of Activating the NRC's IR Program

There are two distinct ways in which the IR Program can be activated. The first is when the Chair, or their designee, invokes emergency powers pursuant to Section 3(a) of Reorganization Plan No. 1 of 1980. In those instances, the Chair dictates how the NRC will posture itself in response to an event and determines the objectives and limitations for its response.

The second (and historically more typical) way is that pre-designated decision-makers from the regional and headquarters' program offices (typically individual Regional Administrators and Office Directors) will determine if the IR Program should be activated. These IR program activation decisions are generally made in response to an NRC licensee-declared emergency.

#### Conforming Changes to the Internal Commission Procedures

Minor conforming changes should be made to the Internal Commission Procedures (ICPs) to reflect the revised IR Program. These recommended changes will be provided to the Commission by the Office of the Secretary in the next revision of the ICPs and will include updating position titles and removing references to the former "ET." No ICP changes are needed for Chair or Commission response authorities or functions.

#### Changes to Supporting Documents

Draft MD 8.2 (Enclosure 2) and Draft IRMC 200 (Enclosure 3) illustrate the line organization modifications made to the NRC's IR Program. These two documents will remain in draft for 10 business days following the Commission's receipt of this information paper, at which time the EDO will issue MD 8.2 and the Division Director for NSIR's Division of Preparedness and Response will issue IRMC 200 (Enclosure 4).

#### CONCLUSION:


The recent revisions to the NRC's IR Program resulted in several enhancements and efficiencies while maintaining effectiveness. The staff addressed past programmatic challenges by streamlining the response organizational structure, adopting a more flexible, scalable, and fluid approach to staffing a response, and integrating national doctrine. These changes resulted in a renewed focus on the agency's response mission and its accompanying training and

exercise program. Additionally, this newly-adopted structure established enhanced flexibilities and sustainability regarding how senior NRC leadership will be engaged and supported, especially during a significant and protracted response.

COORDINATION:

The Office of the General Counsel (OGC) has reviewed this paper and has no legal objection. See Enclosure 4 for OGC's additional comments.

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Enclosures:

1. NRC's Response Organization Chart Comparison
2. Draft: MD 8.2, "NRC Incident Response Program"
3. Draft: Incident Response Manual Chapter 200
4. OGC Additional Comments on Draft: MD 8.2, "NRC Incident Response Program"

SUBJECT: MANAGEMENT DIRECTIVE 8.2, "NRC INCIDENT RESPONSE PROGRAM" AND  
 INCIDENT RESPONSE MANUAL CHAPTER 200, "INCIDENT RESPONSE PLAN".  
 DATED: May 09, 2023.

**ADAMS Accession Nos.: Package:** ML23053A190

**SECY Paper:** ML23053A192; **Enclosure 1:** ML23065A093; **Enclosure 2:** ML23065A193;

**Enclosure 3:** ML23053A194; **Enclosure 4:** ML23053A196

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