

U.S. NUCLEAR REGULATORY COMMISSION MANAGEMENT DIRECTIVE (MD)

MD 8.3	NRC INCIDENT INVESTIGATION PROGRAM	DT-XX-XX
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<i>Volume 8:</i>	Licensee Oversight Programs
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<i>Issuing Office:</i>	Office of Nuclear Security and Incident Response Division of Preparedness and Response
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EXECUTIVE SUMMARY

Management Directive (MD) 8.3, “NRC Incident Investigation Program,” is revised to—

- Reflect the current NRC organization, i.e., the restructuring of the Office of Nuclear Material Safety and Safeguards, and the Office of Nuclear Reactor Regulation.
- Combine the Special Inspection and Augmented Inspection Team reactive inspections.
- Relocate program/facility-specific deterministic and risk criteria into lower tiered documents such as Inspection Manual Chapters and other office-level guidance documents.
- Clarify that staff should consider safety margins, defense-in-depth, and quantitative risk analyses, if applicable, to determine the appropriate level of inspection.
- Clarify when the staff should recommend to the Commission that an accident investigation be considered under MD 8.9, “Accident Investigation,” in addition to or instead of an incident investigation under MD 8.3.

TABLE OF CONTENTS

I. POLICY	2
II. OBJECTIVES	2

For updates or revisions to policies contained in this MD that were issued after the MD was signed, please see the Yellow Announcement to Management Directive index ([YA-to-MD index](#)).

III. ORGANIZATIONAL RESPONSIBILITIES AND DELEGATIONS OF AUTHORITY.....	3
A. Chairman.....	3
B. Executive Director for Operations (EDO)	3
C. Office of the General Counsel (OGC)	3
D. Atomic Safety and Licensing Board (ASLBP)	4
E. Director, Office of Congressional Affairs (OCA)	4
F. Director, Office of Public Affairs (OPA)	4
G. Director, Office of Nuclear Material Safety and Safeguards (NMSS).....	4
H. Director, Office of Nuclear Reactor Regulation (NRR)	5
I. Director, Office of Nuclear Regulatory Research (RES).....	6
J. Director, Office of Investigations (OI)	6
K. Director, Office of Nuclear Security and Incident Response (NSIR)	6
L. Chief Human Capital Officer (CHCO)	7
M. Regional Administrators.....	7
N. Office Directors.....	8
O. Director, Office of Administration (ADM)	8
IV. APPLICABILITY	8
V. DIRECTIVE HANDBOOK	8
VI. REFERENCES.....	8

I. POLICY

It is the policy of the U.S. Nuclear Regulatory Commission (NRC) to ensure that significant events involving reactor and materials facilities licensed by the NRC are investigated in a timely, objective, systematic, and technically sound manner; that the factual information pertaining to each event is documented; and that the cause or causes of each event are ascertained. The events may involve reactive inspection responses by an incident investigation team (IIT) or a less formal special inspection (SI).

II. OBJECTIVES

- Promote public health and safety, instill public confidence, and provide for the common defense and security by reducing the frequency of incidents and preventing accidents.
- Increase the efficiency and effectiveness of NRC regulatory programs and licensee operations by the prompt dissemination of the facts, conditions, circumstances, and causes of significant events and the identification of appropriate follow-up actions.

- Improve regulatory oversight of licensee activities by uncovering facts that may indicate a need to reevaluate whether an aspect of the regulatory process before the event contributed directly to the cause or course of the event.
- Ensure that IIT and SI findings are identified for proper disposition.

III. ORGANIZATIONAL RESPONSIBILITIES AND DELEGATIONS OF AUTHORITY

A. Chairman

Approves the follow-up actions assigned as a result of IIT investigations.

B. Executive Director for Operations (EDO)

1. Approves an IIT investigation of a significant event and ensures that follow-up actions are taken, as defined in Sections II and III of the directive handbook.
2. Determines whether a potentially significant event is to be investigated by an IIT and when to recommend to the Commission that an event meets the criteria in MD 8.9, “Accident Investigation,” for the formation of an independent Accident Review Group (ARG) rather than, or in addition to, an IIT.
3. Selects the IIT leader and members, provides policy and technical direction, and ensures the independence of the IIT.
4. Concurs with the decision, made by the appropriate regional administrator (RA) and office director following an event that involves an IIT response, that facility operations may resume.
5. Resolves conflicts between a regional office and/or one or more program offices regarding such matters as the need to initiate an SI or IIT.
6. Ensures the agency decision-making is appropriately risk informed.
7. Assesses the effectiveness of an IIT investigation and whether it was consistent with the goals of the incident investigation program.
8. Monitors the closure of IIT findings (i.e., staff actions) of the assigned NRC office using the Executive Director of Operation (EDO’s) system of tracking and reporting and evaluates the staff’s actions to confirm that pertinent aspects of each IIT finding are addressed in the implemented resolution.

C. Office of the General Counsel (OGC)

1. Provides legal assistance in implementing the NRC incident investigation program.
2. Identifies and provides legal staff to support IITs.

D. Atomic Safety and Licensing Board (ASLBP)

Provides professional stenographers to transcribe formal interviews conducted by the IIT.

E. Director, Office of Congressional Affairs (OCA)

Makes congressional notifications and arranges congressional briefings, as appropriate, to ensure Congress is informed of NRC responses to events.

F. Director, Office of Public Affairs (OPA)

1. Follows established NRC public affairs policies for keeping the media and the public informed of information related to NRC investigatory responses to events (see Sections II of the directive handbook).
2. Supports IITs.
3. Issues press releases announcing the formation of all IITs and of SIs on a case-by-case basis, as deemed appropriate; arranges for press briefings. Informs the public of all IIT status briefings and meetings on the final investigation results.

G. Director, Office of Nuclear Material Safety and Safeguards (NMSS)

1. Ensures that procedures governing SIs for fuel cycle facility, waste disposal, dry spent nuclear fuel storage facility, nuclear and radioactive materials, and materials transportation events are defined, developed, coordinated, approved, distributed, and maintained.
2. Identifies and provides staff as members and leaders of IITs and SIs as needed.
3. Provides assistance in implementing the NRC incident investigation program.
4. For fuel cycle facility, waste disposal, dry spent nuclear fuel storage facility, nuclear and radioactive materials and materials transportation events warranting consideration of an IIT or significant SI¹, consults with the appropriate RA and the Director, Office of Nuclear Security and Incident Response (NSIR) on the decision.

¹ A "significant SI", in part, replaces the former augmented inspection team threshold used to differentiate between SIs with low risk significance (e.g., below the < 1E-5 conditional core damage probability (CCDP) for power reactors) or potential consequences and SIs with higher risk significance (e.g., at power reactor facilities, when elevated risks ≥ 1E-5 CCDP) or potential consequences that need management coordination for decisions, risk analysis assistance, additional inspection staff expertise, and/or involvement of other headquarters offices (e.g., OEDO, OIG, OPA, OIP, OGC, etc.). This term is defined at a high level in the handbook but will primarily be program-specific and may be found either in office instructions or the NRC Inspection Manual.

5. Notifies the appropriate RA, the Director of NSIR, and the EDO when initiating an SI led out of Office of Nuclear Material Safety and Safeguards (NMSS). When conflicts exist between a regional office and/or one or more program offices regarding the decision to initiate an SI or IIT, the EDO shall make the decision.
6. Selects the SI leader and members and directs, coordinates, and monitors the performance of SIs led out of NMSS.
7. Identifies the potential public health and safety, security, or safeguards issues and provides recommendations to the EDO and the Director of NSIR on events warranting consideration of an IIT, including the composition of the IIT.
8. Discusses with the appropriate RA, the acceptability of the decision by the affected licensee to resume facility operations following an event that involves an IIT response where the facility has been shut down and obtains the EDO's concurrence.
9. Ensures the office decisionmaking is appropriately risk informed.

H. Director, Office of Nuclear Reactor Regulation (NRR)

1. Ensures that event procedures governing SIs for power reactors, non-power utilization facilities, and vendor facilities are defined, developed, coordinated, approved, distributed, and maintained.
2. Identifies and provides staff to be members and leaders of IITs and SIs as needed.
3. Provides assistance in implementing the incident investigation program.
4. For power reactor events warranting consideration of an IIT or significant SI, consults with the appropriate RA and the Director of NSIR on the decision.
5. For non-power utilization facilities and vendor facilities, coordinates with the appropriate RA and the Director of NSIR on events warranting consideration of an IIT or significant SI. Determines whether an SI is warranted at non-power utilization facilities and vendor facilities. Notifies the appropriate RA, the Director of NSIR, and the EDO when initiating an SI led out of Office of Nuclear Reactor Regulation (NRR). When conflicts exist between a regional office and/or one or more program offices regarding the decision to initiate an SI or IIT, the EDO shall make the decision.
6. Selects the SI leader and team members and directs, coordinates, and monitors the performance of SIs led out of the NRR.
7. Identifies the potential public health and safety, security, or safeguards issues and provides recommendations to the EDO on events warranting consideration of an IIT and on the composition of the IIT.
8. Provides and coordinates risk analysis support to the regions for events that warrant an IIT or significant SI consideration or when requested by the appropriate RA or senior reactor analyst.

9. Discusses with the appropriate RA and Director of NSIR the acceptability of the licensee's decision to resume facility operations following an IIT response and event related shut down. Obtains the EDO's concurrence for resumption of operations.
10. Ensures the office decision-making is appropriately risk informed.

I. Director, Office of Nuclear Regulatory Research (RES)

1. Identifies and provides staff as members and leaders of IITs and SIs as needed.
2. Provides assistance in implementing the NRC incident investigation program.
3. Provides risk analysis support (coordinated by NRR) to the regions for power reactor events that warrant an IIT or significant SI consideration or when requested by the appropriate RA or senior reactor analyst.
4. Assists in identifying the potential nuclear material safety, health, or safeguards issues.

J. Director, Office of Investigations (OI)

1. Provides assistance in implementing the incident investigation program.
2. Identifies and provides staff members in support of IIT and SI objectives.
3. Shares with the appropriate region and headquarters offices information obtained in connection with any parallel OI investigation that indicated significant increases in the health, safety, or security significance of the event.

K. Director, Office of Nuclear Security and Incident Response (NSIR)

1. In consideration of NSIR's independent role as lead for the agency's Incident Response Program, administers the incident investigation program with the assistance of other NRC offices, to meet the objectives set forth in this directive.
2. Establishes and maintains an NRC investigatory capability and identifies and coordinates training requirements for IIT candidates through the Technical Training Center (TTC).
3. Establishes and maintains rosters of potential IIT team leaders and team members who are certified through formal training in incident investigation.
4. Ensures that procedures governing IITs are developed, coordinated, approved, distributed, and maintained.
5. Ensures the agency decision-making regarding reactive inspections is appropriately risk informed and provides independent review of the agency's incident investigation activities as needed.

6. Provides administrative support staff to IITs (and as requested for SIs) as necessary to achieve objectives defined in Section II of the MD 8.3 Handbook, with assistance from other NRC offices. This may include security experts in the case of security issues.
7. For events warranting consideration of a significant SI or an IIT, consults with the appropriate RA and the Director of NRR (power reactor events), or the Director of NMSS (fuel facility or materials events) on the decision. Identifies the potential safety or safeguards issues and provides recommendations to the EDO on events warranting consideration of an IIT and on the composition of the IIT.
8. Assesses the effectiveness of incident investigation program activities and recommends action, as appropriate, to improve the program.
9. Provides advice and assistance on the conduct of the agency's incident investigation activities, including on the protection of classified or Controlled Unclassified Information (CUI) related to the incident.
10. Provides advice and consultation to the IIT leader on procedural matters and suggestions regarding completeness of the IIT report.
11. Coordinates with the Office of Administration to provide support necessary to publish an IIT report as a NUREG document.

L. Chief Human Capital Officer (CHCO)

1. Assists with IIT training on an as needed basis.
2. Coordinates and assists with IIT training development and delivery following established agency training policies and procedures.

M. Regional Administrators

1. Identifies and provides staff to be members and leaders of IITs and SIs as needed.
2. Provides assistance in implementing the NRC incident investigation program.
3. Coordinates with the Directors of NRR or NMSS, as appropriate, and the Director of NSIR on events that warrant consideration of an IIT or significant SI.
4. For SIs led out of the region (e.g., power reactors, fuel cycle facilities), determines whether an SI is warranted. Notifies the appropriate Directors of NRR or NMSS, the Director of NSIR, and the EDO when initiating an SI led out of the region. When conflicts exist between a regional office and/or one or more program offices regarding the decision to initiate an SI or IIT, the EDO shall make the decision.
5. Selects the SI leader and members and directs, coordinates, and monitors the performance of SIs led out of the region.

6. Identifies potential health and safety or safeguards issues and provides recommendations to the EDO on events warranting consideration of an IIT.
7. Makes appropriate State and Tribal agency notifications of NRC responses to events.
8. Issues a confirmatory action letter when significant concerns about health and safety, safeguards, or the environment exist to establish commitments to ensure the facility is maintained in a safe condition and to preclude event related resumptions of operations without NRC concurrence when appropriate. The confirmatory action letter may also need to address failed equipment, quarantined areas, agreed-upon controls for troubleshooting, and data preservation and retrieval to ensure a complete understanding of the event's causes and timeline.
9. Consults with the appropriate office director(s) and the Director of NSIR on the acceptability of the licensee's decision to resume facility operations following an IIT response and event-related shut down. Obtains the EDO's concurrence for resumption of operations.
10. Ensures the regional decisionmaking is appropriately risk informed.
11. Provides assistance in briefing and supplying background information to the IIT when it arrives on site. Provides onsite support for the IIT during its investigation.
12. Identifies and provides staff to monitor licensee troubleshooting activities to assess equipment performance.

N. Office Directors

Participate in the incident investigation program as defined in this MD.

O. Director, Office of Administration (ADM)

Supports the issuance of a NUREG to document the results of each IIT.

IV. APPLICABILITY

The policy and guidance of this directive and handbook apply to all NRC employees and contractors.

V. DIRECTIVE HANDBOOK

Directive Handbook 8.3 discusses the major components of the NRC's response to significant events (i.e., IIT and SI).

VI. REFERENCES

Code of Federal Regulations

10 CFR Part 20, Appendix B, Table 2, "Effluent Concentrations."

10 CFR 71.87, "Routine Determinations."

Nuclear Regulatory Commission Documents

Incident Response Manual Chapter 300, "Incident Investigation," ([ML14113A013](#)).

Inspection Manual Chapters 0309, "Reactive Inspection Decision Basis for Power Reactors," (draft at [ML18324A529](#)).

1301, "Response to Radioactive Material Incidents That Do Not Require Activation of the NRC Incident Response Plan."

1302, "Follow-up Actions and Action Levels for Radiation Exposures Associated with Materials Incidents Involving Members of the Public."

2601, "Reactive Inspection Decision Making for Fuel Facilities."

Inspection Procedures

71153, "Follow-up of Events and Notices of Enforcement Discretion."

93800, "Special Inspection," (draft at [ML20337A336](#)).

Management Directives—

8.2, "NRC Incident Response Program."

8.9, "Accident Investigation."

8.10, "NRC Assessment Program for a Medical Event or an Incident Occurring at a Medical Facility."

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TABLE OF CONTENTS

I.	MAJOR COMPONENTS AND RESPONSIBILITIES OF THE PROGRAM	2
	A. Coverage.....	2
	B. Incident Investigation Team (IIT)	2

For updates or revisions to policies contained in this MD that were issued after the MD was signed, please see the Yellow Announcement to Management Directive index ([YA-to-MD index](#)).

C. Special Inspection Team (SI).....	2
D. Significant Event Process	3
II. INCIDENT INVESTIGATION TEAM.....	6
A. Objectives of an Incident Investigation Team.....	6
B. Scope of an Incident Investigation	6
C. Schedule	7
D. Team Composition and Qualifications	8
E. Duties of the Incident Investigation Team	8
F. Conduct of an Investigation	9
G. Followup.....	10
III. SPECIAL INSPECTION (SI)	10

I. MAJOR COMPONENTS AND RESPONSIBILITIES OF THE PROGRAM

A. Coverage

“Incident investigation” is a formal process conducted for the purpose of accident prevention. The process includes gathering and analyzing information; determining findings and conclusions, including the cause(s) of a significant event; and disseminating the investigation results for the U.S. Nuclear Regulatory Commission (NRC), industry, and public review. The components of the process follow.

B. Incident Investigation Team (IIT)

An Incident Investigation Team (IIT) consists of technical experts who, to the extent possible, do not have, and have not had, previous significant involvement with licensing and inspection activities at the affected facility and who perform the single NRC investigation of a significant event as described in Section II of this handbook. An NRC senior manager leads the IIT. Each IIT reports directly to the Executive Director for Operations (EDO) and is independent of regional and headquarters office management. Incident Response Manual Chapter (IRMC) 300, “Incident Investigation” (Agencywide Documents Access and Management System (ADAMS) Accession Number ML14113A013), provides implementing guidelines for IITs.

C. Special Inspection Team (SI)

A Special Inspection Team (SI) consists of technical experts from the region in which the event took place and may be augmented by personnel from headquarters, contractors, or other regions as needed. SI members may have had prior involvement with licensing

and inspection activities at the affected facility. The SI reports directly to the appropriate regional administrator (RA) or office director if the SI is being led out of headquarters. Inspection Procedure 93800, "Special Inspection," (draft at [ML20337A336](#)) provides implementing procedures for SIs.

D. Significant Event Process

1. Criteria to Evaluate and Inform the Level of Response for a Significant Event

- (a) IIT are generally considered for accidents or events with the potential to impact public health and safety, including those that might be determined to have major, serious, wider consequences or serious or major potential consequences. Examples may include but are limited to events resulting in serious injury or loss of life, unplanned criticality, declaration of a high-level Emergency Action Level such as a General Emergency, and complete loss of safety function.
- (b) SI are generally performed for events having significant impacts or local consequences or significant potential consequences. Examples may include but are not limited to over exposures, significant operational errors, degraded safety functions, declaration of an Emergency Action Level, and unanalyzed or unexpected conditions.
- (c) A "significant SI", in part, replaces the former augmented inspection team threshold used to differentiate between SIs with low risk significance (below the $< 1E-5$ conditional core damage probability (CCDP) for power reactors) or potential consequences and SIs with higher risk significance (e.g., at power reactor facilities, when elevated risks $\geq 1E-5$ CCDP) or potential consequences that need management coordination for decisions, risk analysis assistance, additional inspection staff expertise, and/or involvement of other headquarters offices (e.g., Office of the Executive Director for Operations (OEDO), Office of the Inspector General (OIG), Office of Public Affairs (OPA), Office of International Programs (OIP), Office of the General Counsel (OGC), etc.). This threshold may also be referred to as the level of decision response that requires headquarters coordination.
- (d) Specific Evaluation Criteria is mission and product line dependent.
 - (i) Significant Power Reactor Event

Significant events at Power Reactor Facilities are evaluated using the criteria in Inspection Manual Chapter (IMC) 0309, "Reactive Inspection Decision Basis for Power Reactors" (draft at [ML18324A529](#)).
 - (ii) Significant Non-Power Production and Utilization Facility (NPUFs) Event

Significant events at NPUFs are evaluated using “Reactive Inspection Guidance for NPUFs” (ML21182A374).

(iii) Significant Vendor Facility

Significant events at vendor facilities are evaluated on an ad hoc basis considering the criteria in IMC 0309.

(iv) Significant Fuel Cycle Facility Event

Significant events at Fuel Facilities are evaluated using IMC 2601, “Reactive Inspection Decision Making Process for Fuel Facilities.”

(v) Significant Materials (transportation, disposal, radioactive materials) Event

Consult management directive (MD) 8.10, “NRC Assessment Program for a Medical Event or an Incident Occurring at a Medical Facility,” for further detailed criteria for medical events.

(vi) Significant Dry Spent Nuclear Fuel Storage Facility Event

Significant events at Spent Fuel Transfer and Storage Facilities are evaluated on an ad hoc basis considering the criteria in IMC 2601.

- (e) Additional guidance for significant radiological events at reactor, fuel cycle, or materials facilities can be found in IMC 1301, “Response to Radioactive Material Incidents That Do Not Require Activation of the NRC Incident Response Plan,” and IMC 1302, “Follow-up Actions and Action Levels for Radiation Exposures Associated with Materials Incidents Involving Members of the Public.”

2. General

- (a) A significant event is any radiological, safeguards, security or other event at an NRC-licensed facility that poses an actual or potential hazard to public health and safety, common defense and security, property, or the environment. A significant operational event also may be referred to as “an incident” (see MD 8.2, “NRC Incident Response Program,” for more information).
- (b) The decision regarding an “investigatory response” for a significant event should be risk-informed and is defined in part by its risk significance, complexity, and generic safety or security implications. Significant events at power reactor facilities are evaluated considering both deterministic criteria and risk significance. Risk significance should be determined by CCDP analysis (or other quantitative determination of risk significance) and by considering safety margins and defense-in-depth, in order to inform the level of investigatory response. Other significant events (e.g., fuel facility, nuclear material, material

transportation, non-power production or utilization facilities (NPUF), safeguards, and security events) are evaluated based on deterministic criteria, quantitative determinations of risk significance (where possible) and considering safety margins and defense-in-depth. These evaluations will inform the level of investigatory response. Deterministic criteria alone should not be used as the basis for a reactive inspection. Risk significance of the event should be determined using quantitative analyses, to the extent possible, and considering qualitative factors, in limited cases, when quantitative analyses are not possible or available.

- (c) Significant events may involve responses by an IIT or a less formal response by an SI, depending upon the level of response deemed appropriate.
- (d) Power Reactors: Upon notification of a significant power reactor event, the appropriate RA and staff shall perform an initial review to assess the safety or security significance of the event in order to inform the level of response decision. At power reactor facilities, when elevated risks $\geq 1E-5$ CCDP are indicated or when any of the deterministic criteria for headquarters coordination in IMC 0309 are met, the RA shall coordinate with the Office of Nuclear Reactor Regulation (NRR) and the Office of Nuclear Security and Incident Response (NSIR). If requested by the RA, NRR will provide risk analysis support for events below the $< 1E-5$ CCDP threshold for headquarters decision coordination. If the event does not require headquarters decision coordination, the RA shall make the decision on whether to initiate the SI and inform NRR and NSIR. When headquarters decision coordination is required the RA shall make the decision on whether to initiate the SI in consultation the Directors of NRR and NSIR. For events that meet an IIT deterministic criteria of $> 4E-4$ CCDP the EDO shall make the decision on whether to initiate the SI or IIT in consultation the Directors of NRR and NSIR, and the RA.
- (e) Non-Power Production and Utilization Facilities (NPUFs): Upon notification of a significant event at an NPUF, the Director of NRR and shall perform the initial review to assess the safety or security significant of the event to inform the level of response decision. At NPUFs, when deterministic criteria are met or when elevated risks are indicated, the Director of NRR shall coordinate with the Director of NSIR and other headquarters managers as appropriate (e.g., some NPUFs have a Part 70 license potentially requiring coordination with the Director of the Office of Nuclear Material Safety and Safeguards (NMSS)). The Director of NRR shall make the decision on whether to initiate an SI. The EDO in consultation with the Directors of NRR and NSIR shall make the decision on whether to initiate an IIT.
- (f) Vendor Facilities: Upon notification of a significant event at a Vendor Facility, the Director of NRR and staff shall perform the initial review to assess the safety or

security significance of the event to inform the level of response decision. The NRR Office Director shall make the decision on whether to initiate a SI and notify the Director of NSIR and other headquarters managers as appropriate. The EDO in consultation with the NRR and NSIR Office Directors shall make the decision on whether to initiate an IIT.

- (g) Fuel Facilities and Materials: Upon notification of a significant event at a fuel facility or involving nuclear materials, the RA and/or the Director of NMSS, as appropriate, along with staff shall perform the initial review to assess the safety or security significance of the event to inform the level of response decision. When deterministic criteria are met or when elevated risks are indicated, the Director of NMSS and/or the Regional RA shall coordinate with the Director of NSIR, and other headquarters managers as appropriate. The Director of NMSS and/or the RA shall make the decision on whether to initiate the SI and notify the Director of NSIR and other headquarters managers as appropriate. The EDO in consultation with the Directors of NMSS and NSIR shall make the decision on whether to initiate an IIT.

II. INCIDENT INVESTIGATION TEAM

The investigatory initiative involving a response by an IIT is described in this part.

A. Objectives of an Incident Investigation Team

The objectives of an IIT are to—

1. Conduct a timely, thorough, systematic, formal, and independent investigation of certain safety-significant or security events occurring at facilities licensed by the NRC.
2. Collect, analyze, and document factual information and evidence sufficient to determine the probable cause(s), conditions, and circumstances pertaining to the event.

B. Scope of an Incident Investigation

1. An IIT investigation should emphasize factfinding and determination of probable cause for a significant event. The scope of the investigation must be sufficient to ensure that the event is clearly understood, the relevant facts and circumstances are identified and collected, and the probable cause(s) and contributing cause(s) are identified and substantiated by the evidence associated with the event. The investigation must consider whether licensee and NRC activities preceding and during the event were timely and adequate.

2. The scope of an IIT investigation must include conditions preceding the event, event chronology, systems response, human factors considerations, equipment performance, precursors to the event, emergency response, safety significance, radiological considerations, security significance, and findings and conclusions. The scope of the IIT investigation will be established by a charter attached to the initiating memorandum from the appropriate office director to the EDO.
3. The scope of the investigation shall exclude—
 - (a) Specific assessment of violations of NRC rules and requirements;
 - (b) Review of the design and licensing bases for the facility, except as necessary to assess the cause for the event under investigation;
 - (c) Assessment of reasonable assurance of offsite emergency response capabilities of State, Tribal and local agencies; and
 - (d) Determination for resumption of licensed operation.

However, the NRC will consider information collected as part of the IIT process when a decision is made by the affected licensee to resume facility operations before issuance of the IIT report. These instances require close coordination between the IIT leader, the RA, the appropriate program office director, and the Director of NSIR.

C. Schedule

1. The IIT must be activated as soon as practicable after the health and safety significance of the event is determined and will begin its investigation as soon as practicable after the facility has been placed in a safe, secure, and stable condition. If there is an NRC incident response, the IIT investigation will begin after the incident response is deactivated. Refer to IRMC 300 for detailed activation and scheduling guidance.
2. The IIT must issue interim reports at appropriate intervals outlining the status, plans, and relevant new information related to its investigation.
3. The IIT must prepare and transmit its final report to the Commission and the EDO within 45 days of activation of the team, unless relief is granted by the EDO. The EDO will normally schedule a meeting for the IIT to brief the Commission on its investigation approximately 1 week after receipt of the final report. The final IIT report will be published as a NUREG.
4. Information contained in the report is not to be released to the public until a copy of the final report is placed in the Agencywide Documents Access and Management System (ADAMS), which normally occurs during the day of the Commission briefing,

if one is conducted. If deemed necessary, the EDO may forward a copy of the final report to the affected licensee before the Commission briefing and simultaneously forward a copy of the final report to ADAMS. Following the Commission briefing, the EDO will transmit a copy of the final report to the licensee and the NRC staff for review and comment before the EDO defines the follow-up actions and assigns them to NRC offices.

D. Team Composition and Qualifications

1. The IIT will be composed of technical experts selected based on their expertise relevant to the event under investigation and their freedom from significant involvement in the licensing and inspection of the facility involved or other activities associated with issues that had a direct effect on the course or consequences of the event. The number of members and areas of technical expertise required for each IIT will be determined based on the type of facility and characteristics of the event.
2. The special procedures for clearing non-Government individuals, which are outlined in IRMC 300, apply whenever these individuals are used to support an IIT.
3. The team leader and expert members should, to the extent practicable, be selected from rosters of candidates who have been certified through formal training in incident investigation. An NRC senior manager from the Senior Executive Service shall be the team leader.

E. Duties of the Incident Investigation Team

1. The IIT carries out the single NRC fact finding investigation of the event and is authorized to pursue and is responsible for pursuing all aspects of an event that are within its scope as defined above. NRC response personnel on site shall provide support as needed to ensure the efficient and effective transition to investigation of the event in a manner that does not interfere with facility safety.
2. IIT Leader
 - (a) Directs and manages the IIT in its investigation and ensures that the objectives and schedules are met for the investigation as defined in this handbook.
 - (b) Identifies, adds, and removes equipment and areas from the quarantined list to ensure facility safety. In addition, ensures that the licensee is able to perform appropriate maintenance and testing of equipment and determine causes for equipment anomalies.
 - (c) Works with OPA in providing the news media with information on IIT activities.

- (d) Serves as principal spokesperson for IIT activities when interacting with the licensee, NRC offices, the Advisory Committee on Reactor Safeguards (ACRS), news media, and other organizations on matters involving the investigation.
- (e) Prepares frequent status reports documenting IIT activities, plans, significant findings, and health and safety concerns that may require timely remedial actions or issuance of information notices, bulletins, or orders.
- (f) Receives direction from and supervision by the EDO.
- (g) Identifies and requests that the EDO provide additional IIT resources (e.g., additional members, consultants, contractor assistance), as needed.
- (h) Identifies and recommends to the EDO further studies and investigations, for example, as those involving staff performance in regulatory activities before the event, when significant concerns could not be thoroughly evaluated because of time or resource limitations.
- (i) Ensures, in cooperation with the IIT members and the technical writer/editor, preparation of the final report by the due date established by the EDO.
- (j) Briefs the Director of NRR or NMSS, as appropriate, the Director of NSIR, and the RA on the facts surrounding the event in support of decisionmaking concerning resumption of facility operations by the affected licensee.
- (k) Promptly documents and conveys significant ancillary findings or information outside the scope of the IIT charter to regional management for follow-up action.
- (l) Ensures that a lessons-learned evaluation is conducted and documented on the IIT efforts and results.

F. Conduct of an Investigation

1. The investigation process is based on the principles of incident investigation provided in IIT training programs and described in IRMC 300.
2. The composition of the IIT must be structured and the procedures developed to maintain independence and objectivity. Personnel possessing a high degree of independence, ingenuity, and resourcefulness should be selected to ensure that the investigation is conducted in a timely, professional, thorough, and coordinated manner.
3. Implementing procedures to guide and control the establishment and investigatory activities of an IIT are included in IRMC 300. This procedure provides guidance for—

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- (a) Activating an IIT, including responsibilities, coordination, communication, team composition, and guidance;
 - (b) Outlining an IIT investigation of an event, including responsibilities, work plan, communication, interfaces, scope, and schedule;
 - (c) Interviewing personnel;
 - (d) Collecting and maintaining records, documents, data, and other information;
 - (e) Treating quarantined equipment and areas; and
 - (f) Preparing the IIT report, reviewing the IIT report for classified or sensitive unclassified information, and distributing the IIT report and related documents.
4. For an IIT involving a medical event, additional guidance is provided in MD 8.10.

G. Followup

1. Following NRC staff and licensee review and comment on the IIT report, the EDO identifies generic and facility-specific staff actions that must be taken as a result of the findings of the investigation. Following Commission approval, the EDO shall assign an NRC office responsibility for each action. Office directors shall provide a written status report on the disposition of each assigned action as directed by the EDO.
2. The memorandum assigning follow-up actions (i.e., staff actions) should address all IIT findings, including those that are judged to require no follow-up action, in order to document the consideration of all findings. The resolution of each staff action will be documented by the assigned NRC lead office in a single safety evaluation report, and each staff action will be individually tracked by the EDO's status tracking and reporting system.

III. SPECIAL INSPECTION (SI)

- A.** SI inspections are generally conducted using Inspection Procedure 93800. The inspection objectives, general scope, and inspection specific responsibilities are defined in the inspection procedure.
- B.** The inspection lead will be selected by the approving authority.
- C.** The overall scope of inspection will be defined by the inspection charter.
 1. The purpose of the charter is to delineate the general scope of the reactive inspection and to facilitate fact gathering and understanding. Available risk insights should be used to develop the scope of the charter. Examples of items the charter

- can include are conditions preceding the event, event chronology, system responses, human factors, safety culture, equipment performance, quality assurance, radiological considerations, safeguard considerations, event precursors, event response, operating experience, and safety or security impacts in determining the causes of the significant event and in support of appropriate agency follow-up actions. The charter should assess any immediate corrective actions and compensatory measures taken to address immediate safety or security concerns. The charter should be consistent with event risk insights.
2. For SIs, the inspection is focused on fact-gathering and thorough independent review of events. When the inspection is complete the inspection should consider providing feedback to headquarters on any suggested changes to prevent or reduce the frequency of the significant events or enhance oversight processes.
 3. At power reactor sites, the charter should not attempt to assess the adequacy of any longer-term corrective actions used to improve licensee performance and prevent recurrence of significant conditions since those follow-up activities are addressed using supplemental or baseline inspections. Performing these activities during a reactive inspection may delay prompt dissemination of the facts and circumstances surrounding the significant event and pose unwarranted regulatory burden on licensees.
 4. For SIs, the charter is generally communicated as an enclosure to a memorandum from the approving authority to the leader. The charter may be modified during the course of the inspection in consultation with management when the inspection develops significant new information that warrants review.