U.S. National Response Team Report: Reconciling Coordination Issues Between the Federal Radiological Emergency Response Plan and the National Oil and Hazardous Substances Pollution Contingency Plan

U.S. National Response Team
National Response System and Radiological Response Ad Hoc Committee

Section I. Issues and Purpose

The key issue concerning the relationship between the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)[1] and the Federal Radiological Emergency Response Plan (FRERP)[2] is that both plans apply simultaneously during radiological responses. Consequently, coordination during a radiological emergency is needed between the Federal departments and agencies that can potentially respond under these two plans[3]. Furthermore, no formal mechanism currently exists for reconciling the overlaps and perceived conflicts that potentially exist between these two plans, other than relying on the experience and dedication of emergency responders on an ad-hoc basis.

Given the lack of this coordination mechanism, the purpose of this report is to recommend to the NRT a mechanism that addresses: (1) the perceived or potential conflicts between these two plans; (2) the solutions to these perceived or potential conflicts; and (3) the methods for implementing these solutions.

Section II. Background - Description of the FRERP and the NCP

Federal Radiological Emergency Response Plan

The FRERP is an agreement among 17 Federal departments and agencies for responding to any peacetime radiological emergency that has actual, potential, or perceived radiological consequences within the U.S., its territories, possessions, or territorial waters. Responses to emergencies occurring at nuclear facilities or involving radioactive materials, including nuclear weapons, regardless of the amount, fall within the scope of this plan. The FRERP applies simultaneously with the NCP during radiological releases (except for some Nuclear Regulatory Commission [NRC]-licensed nuclear reactor incidents that are exempt from the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA], the statute which forms the basis of the NCP provisions on hazardous substance response). The FRERP is always in effect and is ready to be used by Federal departments and agencies responding to peacetime radiological emergencies, assisting state and local organizations in protecting public health and safety. This plan does not create new authorities or change existing authorities. Specifically, the FRERP:

- Provides for, and defines the role and responsibility of an On-Scene Commander;
- Identifies the title of Lead Federal Agency (LFA) and describes the LFA's role;
- Identifies the Federal agencies that provide support to the LFA during a radiological response

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[1] The NCP is located in 40 Code of Federal Regulations (CFR), part 300. Also see Executive Orders 12580 and 12777, as amended.

[2] The FRERP is located in the Federal Register, May 8, 1996 edition, Vol. 61, Number 90, pages 20943 - 20970. This plan was issued pursuant to Executive Order 12241.

[3] The FRERP scope states that: "The level of the Federal response to a specific emergency will be based on the type and/or amount of radioactive material involved, the location of the emergency, the impact on or the potential for impact on the public and environment, and the size of the affected area."

and establishes their respective roles during the response;
- Establishes the level of support undertaken by the Federal government during a radiological response (i.e., the Federal government supports state and local governments); and
- States that each department or agency (except for the General Services Administration and, in some cases, the Department of Veterans Affairs) fund its own radiological response activities.

The FRERP assigns five signatory Federal departments or agencies the role of LFA, depending on the type of emergency in question. These five departments and agencies are the NRC, the Department of Defense (DOD); the Department of Energy (DOE); the Environmental Protection Agency (EPA); and the National Aeronautics and Space Administration (NASA). Once the LFA role for a specific emergency is identified, the LFA agency has several responsibilities under the FRERP, including:

- Leading and coordinating all Federal on-scene response actions during a radiological response. The LFA will coordinate the response actions from an on-scene location known as the Joint Operations Center (JOC). If the LFA has not yet established its base of operations in a JOC, then the LFA will accomplish the coordination of response actions from another LFA facility, usually a Headquarters operations center;
- Maintaining cognizance of the Federal radiological response by conducting and managing the Federal on-site actions;
- Coordinating Federal off-site radiological monitoring and assessment;
- Developing and evaluating recommendations for off-site radiological protective actions;
- Presenting recommendations for off-site radiological protective actions to the appropriate state and/or local officials;
- Developing situation reports on the radiological aspects of the emergency and the Federal response;
- Coordinating the release of Federal information on the radiological aspects of the event to the public;
- Providing reports to the President and keeping the White House informed on the radiological aspects of the emergency; and
- Performing preliminary radiological damage assessments with the Federal Emergency Management Agency (FEMA) to assist the state in preparing a request for a Presidential declaration of emergency in accordance with the Stafford Act and the Federal Response Plan.

National Oil and Hazardous Substances Pollution Contingency Plan

The NCP is a Federal regulation that provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants. The NCP also adopts the FRERP LFA and support agency roles[4]. As such, each NCP agency looks to the FRERP for its specific mission during radiological responses. Federal departments and agencies are directed to coordinate their planning,

[4] Section 300.130(f) of the NCP states that "Where appropriate, when a discharge or release involves radioactive materials, the lead or support federal agency shall act consistent with the notification and assistance procedures described in the appropriate Federal Radiological Plan. For the purpose of the NCP, the FRERP is the appropriate plan."

preparedness, and response activities. In addition, the NCP is an important component of the National Response System and is applicable to:

- Releases of hazardous substances (including radionuclides), and pollutants or contaminants that may present an imminent and substantial danger to the public health or welfare or the environment; and
- Discharges of oil into or on the navigable waters of the U.S., on the adjoining shorelines, the waters of the contiguous zone, into waters of the exclusive economic zone, or that may affect natural resources belonging to, or under the exclusive management authority of, the U.S.

The NCP also:

- Provides for, and defines the roles and responsibilities of, an On-Scene Coordinator[5]. The On-Scene Coordinator generally is responsible for directing response efforts at the scene of a discharge or release;
- Identifies the title of Lead Agency (LA) and describes the LA's role;
- Identifies the agencies that support the LA and establishes their response roles;
- Provides regulations for conducting response actions;
- Authorizes response funding (Superfund monies for EPA/U.S. Coast Guard [USCG] activities, but not for other Federal LAs);
- Provides for an Incident Command System/Unified Command[6] (ICS/UC) response structure; and
- Provides assistance to state and local agencies in protecting the health and safety of the public within the geographic area of the incident, accident, or event.

ICS/UC is a necessary tool for: (1) managing multi-jurisdictional responses to discharges of oil or releases of hazardous substances; (2) creating organizational links between the participants

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[5] Under section 104(a)(4) of CERCLA, "the President may respond to any release or threat of release if in the President's discretion, it constitutes a public health or environmental emergency and no other person with the authority and capability to respond to the emergency will do so in a timely manner." The term "President" refers to the President of the United States, as well as (1) any officer, employee, or representative of the President, and (2) any duly designated officer, employee, or representative of a state or political subdivision. Executive Order 12580 delegates the CERCLA section 104 response authority and other CERCLA authorities to those agencies (e.g., EPA and NRC) and their employees (the On-Scene Coordinators or Commanders) that are responsible for responding to a discharge of oil or a release of a hazardous substance (including radionuclides). In addition, Section 311(c)(2)(A) of the Clean Water Act states that "if a discharge, or substantial threat of a discharge, of oil or a hazardous substance from a vessel, offshore facility, or onshore facility is of such a size or character as to be a substantial threat to the public health or welfare of the United States (including but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the President shall direct all Federal, state, and private actions to remove the discharge or to mitigate or prevent the threat of the discharge." It should be noted that this section of the NCP applies only to discharges of oil and hazardous substances listed under section 311 of the Clean Water Act, which does not include radionuclides.

[6] The Unified Command System becomes the delivery mechanism for coordination under the Incident Command System. Essentially, the Unified Command System replaces a single incident commander in a highly complex incident.

and organizations that respond to a discharge of oil or a release of a hazardous substance; and (3) developing a common set of incident objectives and strategies. ICS/UC participants and organizations include: (1) the Federal On-Scene Coordinator (FOSC), who maintains authority[7]; (2) the state On-Scene Coordinator; (3) the local incident commander; and (4) the responsible party.

The NCP assigns the role of LA to various Federal departments and agencies (e.g., EPA, USCG, DOD, and DOE), depending on the particular type of radiological emergency. EPA is typically the LA for inland areas, while the USCG is typically the LA for coastal areas. If the emergency occurs on a Federal site, then the Federal department or agency owning or operating the site is normally the LA. Once a Federal department or agency assumes the LA role for a specific emergency, that agency assumes many responsibilities under the NCP. These include:

- Leading the National Response Team (NRT) and the incident-specific Regional Response Team (RRT) when these two organizations function as response organizations;
- Assigning the Federal On-Scene Coordinator;
- Collecting pertinent facts about the emergency, such as (1) the source and/or cause of the emergency, and (2) the nature, amount, location, and potential impact of released materials;
- Identifying those individuals responsible for the emergency;
- Documenting the costs associated with responding to the emergency;
- Designating capable individuals from Federal, state, and local agencies to act as on-scene representatives for the LA;
- Evaluating information and advising FEMA of potential major disaster situations;
- Addressing worker health and safety concerns at the emergency scene;
- Submitting reports to the RRT and other appropriate agencies as significant developments occur during the emergency response;
- Ensuring that all appropriate public and private interests are kept informed and that their concerns are considered throughout the emergency response; and
- Protecting the health and safety of the public within the geographic area of the incident, accident, or event.[8]

[7] Section 300.105(d) of the NCP states that "the basic framework for the response management structure is a system (e.g., a unified command system) that brings together the functions of the Federal Government, the state Government, and the responsible party to achieve an effective and efficient response, where the OSC maintains authority." Section 300.5 of the NCP defines "OSC" as "[a] federal official predesignated by EPA or the USCG to coordinate and direct responses..."

[8] These responsibilities are listed in 40 CFR part 300, section 135.

Section III. Potential Conflicts and Solutions Related to the NCP and the FRERP

As mentioned above, the key issue concerning the relationship between the NCP and the FRERP is that both plans apply simultaneously during radiological responses. As such, coordination is needed between these two plans.

Table 1 lists the perceived or potential conflicts that exist between the FRERP and the NCP, as identified by the NRT, and the solutions for resolving these conflicts. A key component of each solution is the need to designate one Federal organization as the department or agency that will assume the role of coordinating the overall Federal response. This role does not alter the responsibilities and authorities of the FRERP On-Scene Commander or the NCP On-Scene Coordinator. Furthermore, it does not imply a new "position" in the emergency response organization. Rather, it indicates that either the FRERP LFA or the NCP LA will possess broad coordination capabilities and responsibilities during the response. These responsibilities extend to both the Joint Operations Center and the Joint Information Center.

Table 1. Potential Conflicts and Solutions Related to the NCP and the FRERP[9]

Potential Conflict[10]	Solution
1. The NCP allows for the designation of an "On-Scene Coordinator," while the FRERP allows for the designation of an "On-Scene Commander."	! Identify the Federal organization with overall coordination responsibility. To identify this organization, refer to Table 2. ! The On-Scene Coordinator or On-Scene Commander retains his/her title and responsibilities.
2. Different departments and agencies are designated to be the overall Federal manager (either as an On-Scene Commander or as an On-Scene Coordinator). For example, the NRC is the LFA for nuclear plant accidents, but EPA is the LA.	! Identify the Federal organization with overall coordination responsibility. To identify this organization, refer to Table 2. ! The On-Scene Coordinator or On-Scene Commander retains his/her title and responsibilities.
2a. Under the NCP, the USCG On-Scene Coordinator has authority during coastal radiological incidents. However, the FRERP states that the designation of the LFA depends on the nature of the incident, and in no case will be the USCG.	! EPA will coordinate the overall response for facilities not owned/operated by Federal agencies. ! The NRC will coordinate the overall response for NRC-licensed facilities or material. ! DOE will coordinate the overall response for DOE-owned/operated facilities. ! DOD will coordinate the overall response for DOD-owned/operated facilities.
2b. The NCP states that the EPA On-Scene Coordinator has authority during radiological incidents that involve space vehicles. Under the FRERP, NASA, DOE, or DOD is the LFA in these situations.	! EPA will coordinate the overall response for NASA satellites (inland). ! USCG will coordinate the overall response for NASA satellites (coastal). ! DOE will coordinate the overall response for DOE satellites. ! DOD will coordinate the overall response for DOD satellites.
2c. The NCP states that the EPA On-Scene Coordinator has authority during inland radiological incidents, as long as the release does not fall under the Price-Anderson Act amendments to the Atomic Energy Act (i.e., the release originates from a commercial nuclear plant or DOE facility). Under the FRERP, the NRC is the LFA during situations in which a release occurs at a licensed fixed facility or concerns an activity licensed by the NRC, while EPA is the LFA for: (a) releases at radiological facilities not licensed, owned, or operated by a Federal agency or an Agreement State; (b) transportation releases that involve radioactive material not licensed or owned by a Federal agency or an Agreement State; and (c) releases that involve radioactive material from a foreign source.	! The NRC would be the LFA for releases that involve NRC-licensed material; EPA would undertake NCP/Superfund response actions during radiological releases, if the licensee was bankrupt, missing, or could not respond. ! The NRC would lead the Federal effort for releases that have an actual, potential, or perceived radiological consequence. EPA would lead the Federal effort in accidents where the only concern is a chemical release or threat, and would support NRC during accidents that involve both chemical and radiological releases. ! If a conflict in response leadership occurs, EPA and the NRC will confer in order to determine which agency will incur the greater relative risk during the response. This agency, in turn, will take the lead during the response.
3. If there is a response under the FRERP, does the NRT continue to function as defined in the NCP[11]?	! Yes, the NRT can function under the NCP. However, it should be aware of the additional responsibilities imposed by, and assets available under, the FRERP.
4. A Federal department with FRERP and NCP responsibilities could state that the response is required by the NCP so that it can be reimbursed for expenses.	! Reimbursement and which plan a Federal department or agency responds under is irrelevant to the central issue of whether the Federal department or agency has met its responsibilities under the applicable plan(s).
5. For radiological incidents, the NCP requires notification to the National Response Center. The FRERP does not require this notification.	! All agencies and facilities should notify the National Response Center for all radiological emergencies (in addition to their existing notification requirements).

Table 2 applies the solutions shown in Table 1 to various radiological response scenarios by

[9] Under the FRERP and the NCP, DOD and DOE provide an On-Scene Coordinator for incidents that occur at their facilities.

[10] These conflicts could lead to inefficient radiological responses because two or more agencies could claim authority during the same incident.

[11] The NRT comprises 16 Federal agencies, and is responsible for providing policy guidance prior to an incident and assistance as requested by an On-Scene Coordinator supported by a Regional Response Team during an incident.

identifying specific types of radiological emergencies, as well as the "designated" FRERP LFAs and NCP LAs for each type of emergency. Table 2 also identifies the designated Federal organization that will assume the role of coordinating the response to each type of emergency.

A major application of Table 2 concerns NRC-licensed material. Three examples related to this situation include:

- NRC-licensed nuclear power reactors (e.g., Three-Mile Island). Releases from these facilities are generally radioactive. For this reason, the NRC is the LFA and the Federal organization designated to coordinate the overall response during this emergency. Other Federal agencies, including EPA and DOE, support the NRC during these responses. Examples of this situation are shown in Row 1b of Table 2;
- NRC-licensed fuel cycle facilities (e.g., the Kerr-McGee facility in Gore, OK). Releases from these facilities can be radiological, chemical, or both. If a release is purely chemical, only the NCP applies. In this situation, EPA is the LA and will coordinate the Federal response. The NRC and other Federal agencies support EPA during these responses. If a release includes radioactive material, then the NRC is the FRERP LFA and the Federal organization designated to coordinate the overall response during this emergency. In this situation, all Federal agencies would coordinate their activities with the NRC. Examples of these situations are shown in Row 1b of Table 2; and
- NRC-licensed radioactive material involved in a transportation accident (or another type of accident where state/local authorities request Federal assistance). The NRC will be the FRERP LFA and the Federal organization designated to coordinate the overall response during this emergency. Examples of these situations are shown in Rows 2a and 2b of Table 2.

A second major application of this table concerns radioactive materials owned by NASA. Two examples of this situation include:

- Radioactive materials controlled by NASA in an inland location. EPA is the NCP LA and the Federal organization designated to coordinate the overall response during this emergency. This scenario is shown in Row 3c of Table 2.
- Radioactive materials controlled by NASA in navigable waters[12] or in a coastal water location. USCG is the NCP LA and the Federal organization designated to coordinate the overall response during this emergency. Examples of this situation are shown in Row 3d of Table 2.

[12] The Clean Water Act definition of navigable waters is broad given that some of these waters may occur within inland areas. In addition, the agency responsible for leading a response *is* determined by jurisdictional maps that are present in each Regional Incident Contingency Plan.

Table 2. Agency Authority Designation for Specific Radiological Emergencies

Type of Emergency	Designated FRERP LFA	Designated NCP LA	Designated Lead Responding Organization
1. Nuclear Facility a. Owned or Operated by DOD or DOE[13]	DOD or DOE	DOD or DOE	DOD or DOE
b. Licensed by NRC or Agreement State[14]	NRC	EPA[15]	NRC
c. Not Licensed, Owned, or Operated by a Federal Agency or an Agreement State[16]	EPA	EPA	EPA
2. Transportation of Radioactive Material a. Materials Shipped by or for DOD or DOE	DOD or DOE	DOD or DOE	DOD or DOE
b. Shipment of NRC or Agreement State-licensed Materials **in the inland zone**	NRC	EPA	NRC
c. Shipment of NRC or Agreement State-licensed Materials **in the coastal zone**	NRC	USCG	NRC
d. Shipment of Materials, **in the inland zone**, that are not licensed or owned by a Federal agency or Agreement State	EPA	EPA	EPA
e. Shipment of Materials, **in the coastal zone**, that are not licensed or owned by a Federal agency or Agreement State	EPA	USCG	EPA
3. Satellites Containing Radioactive Materials a. Radioactive materials owned by DOD	DOD	DOD	DOD
b. Radioactive materials owned by DOE	DOE	DOE	DOE
c. Radioactive materials controlled by NASA (inland)	NASA	EPA	EPA
d. Radioactive materials controlled by NASA (coastal)	NASA	USCG	USCG
4. Impact from Foreign or Unknown Sources of Radioactive Materials[17]	EPA	EPA	EPA
5. Other Types of Emergencies	LFAs confer	per NCP	per NCP until Conference[18]

[13] The emergencies at these facilities may involve reactor operations, nuclear material and weapons production, radioactive material from nuclear weapons, or other radiological activities.

[14] These facilities include, but are not limited to, commercial nuclear power reactors, fuel cycle facilities, DOE-owned gaseous diffusion facilities that are operated under NRC regulatory oversight, and radiopharmaceutical manufacturers.

[15] EPA is not the designated NCP LA if a release, resulting from a nuclear incident, is subject to the financial protection requirements established by the Nuclear Regulatory Commission under the Price-Anderson amendments to the Atomic Energy Act. Releases of this type are excluded from CERCLA and NCP requirements.

[16] These facilities possess, handle, store, or process radium or accelerator-produced radioactive material.

[17] A foreign or unknown source may refer to a reactor (e.g., Chernobyl), a spacecraft containing radioactive material, radioactive fallout from atmospheric testing of nuclear devices, imported radioactive contaminated material, or a shipment of foreign-owned radioactive material. Unknown sources of radioactive material refers to that material whose origin and/or radiological nature is not yet established. These types of sources include contaminated scrap metal or abandoned radioactive material.

[18] The pre-designated OSC under the NCP will lead the response until the Lead Federal Agencies and the NCP OSC can confer to recommend which Federal organization should be designated to lead the overall response. In the event that the conferees recommend a change, the overall lead for the response will transfer to the organization recommended by the conferees.

Section IV. Recommended Follow-up Actions For This Report

The Ad Hoc Committee recommends the following actions to be taken on this report:

1. Obtain approval of the report from the full National Response Team.
2. Obtain concurrence from the Federal Radiological Preparedness Coordinating Committee.
3. Publish the report in the Federal Register for informational purposes only, not to solicit public comment.
4. Distribute the report to **all** applicable departments and agencies, and post it on the Internet.
5. Present this report to responders at professional conferences.
6. Provide training sessions for department and agency response personnel that cover specific NCP and FRERP activation situations.
7. Conduct exercises that require cooperation between response personnel in a ICS/UC system (the decisions made in this system need to be consistent with the FRERP and the NCP).
8. Analyze this report's implications at the RRT level - where there are operational concerns (including interactions among RRT/State/local agencies) as well as organizational-logistical concerns.
9. Based on this NRT guidance, relevant departments and agencies should analyze, and revise as appropriate, all response plans, including Regional Incident Contingency Plans and other Federal response plans.
10. Revise all Federal radiological response plans to reflect this report.
11. Determine if a Memorandum of Agreement is necessary between the departments and agencies that are affected by the guidance established in this report.

References

1997 Lost Source Exercise: An Exercise of Radiological Response Through Cooperation and Coordination of Local, State and Federal Agency Resources Under the National Contingency Plan, NUREG-1634, EPA 903-K-98-002, June 1998.

Executive Order 12241. National Contingency Plan. 45 Federal Register 64879, October 1, 1980.

Executive Order 12580. Superfund Implementation. 52 Federal Register 2923, January 29, 1987.

Executive Order 12777. Implementation of section 311 of the Federal Water Pollution Control Act of October 18, 1972, as amended, and the Oil Pollution Act of 1990. 56 Federal Register 54757, October 22, 1991.

Federal Radiological Emergency Response Plan (FRERP); Operational Plan; Notice, Federal Register, page 20943-20970, May 8, 1996.

Federal Response Plan (FRP), as amended, April 1999. Copies of this document can be obtained by calling the FEMA Distribution Center at 1 (800) 480-2520, or by entering the following FEMA-related webpage: http://www.fema.gov/r-n-r/frp/.

National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR part 300, Office of Management and Budget control No.: 2050-0141, updated in 1997.

Removal Response to Radiation Sites: Reference Document, EPA, Office of Solid Waste and Emergency Response (OSWER) Directive 9200.5-144, October 17, 1996.

Steuteville, William. Two Plans, Two Response Communities: Reconciling Federal Radiological Response. EPA, Region III. Provided as a handout at the 1998 NRT/RRT Co-Chairs Meeting.