



**[NOTE TO SPEAKER:** The first four slides of this presentation provide a brief introduction to the National Response System and the role of the federal government during a response to an oil discharge or hazardous substance release. If your audience is familiar with these concepts, you may skip this introduction and proceed to slide five for an introduction to ICS/UC.]

**Speaker Notes:** The purpose of this presentation is to:

- Introduce the concepts of the Incident Command System/Unified Command (ICS/UC);
- Outline the assistance that can be provided by the Federal On-Scene Coordinator (OSC); and
- Provide an outreach tool to discuss multi-jurisdictional responses with responders and the public. You may want to use this tool to discuss area planning and regional contingency planning with your appropriate state representatives.]

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR part 300) establishes the National Response System (NRS) as the federal government's response management system for emergency response to releases of hazardous substances into the environment or discharges of oil into navigable waters of the United States. This system functions through a network of interagency and intergovernmental relationships and provides for coordinating response actions by all levels of government to a real or potential oil or hazardous substances incident. A primary mission of the federal system is to provide support to state and local response activities. Oil and hazardous substances response under the NRS is divided into three organizational levels: the National Response Team (NRT), Regional Response Teams (RRTs), and OSCs.

At the National level, the NRT is comprised of 16 federal agencies with interests and expertise in various aspects of emergency preparedness and response to pollution incidents. The NRT provides national planning and policy guidance prior to incidents, and assistance as requested during an incident. Like the NRT, the RRTs are planning, policy, and coordinating bodies, and usually do not respond directly to the scene; rather they provide support, advice, and assistance to the Federal OSCs. All NRT member departments and agencies, as well as state and local participants, are represented on RRTs.

## Federal On-Scene Coordinator

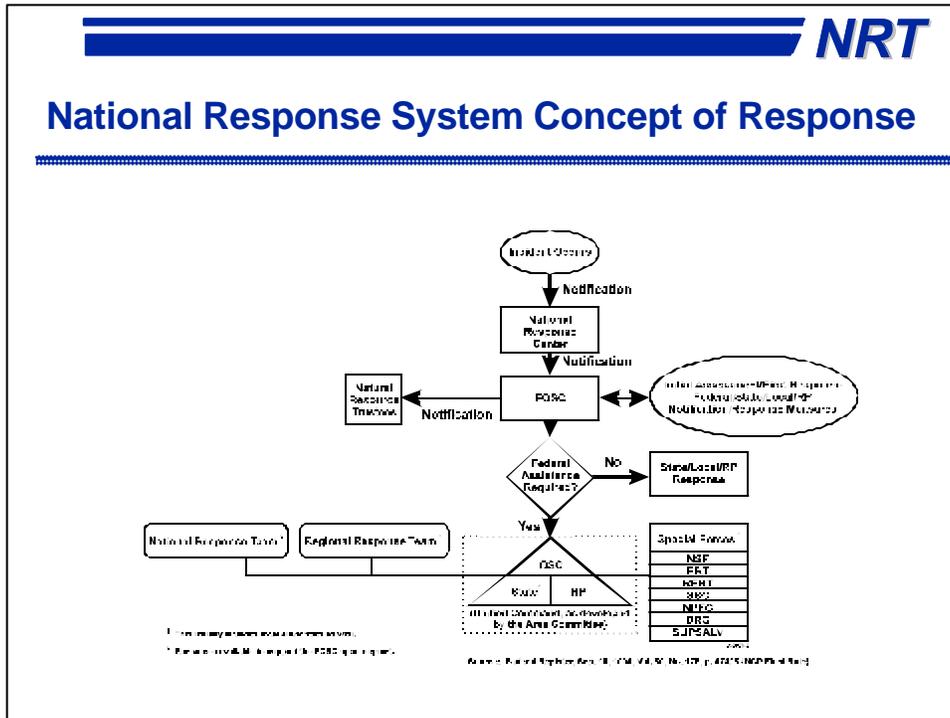
- Responsible for providing access to federal resources and technical assistance
- Coordinates all federal containment, removal, and disposal efforts and resources during an oil or hazmat incident
- Serves as the point of contact for coordination of federal efforts with the local response community
- Coordinates, monitors, or directs response efforts
- Agency providing OSC might differ depending on the incident (EPA, USCG, DOD, DOE, or other federal agency)

Federal OSCs are the federal officials predesignated by EPA and the USCG to coordinate response resources. The OSC, either directly or through his or her staff, monitors, provides technical assistance, and/or directs federal and potentially responsible party (PRP) resources. As the state and local responder's gateway to the resources of the NRS, it is the OSC's responsibility to provide access to resources and technical assistance that may not otherwise be available to a community. Under the NCP, if federal involvement is necessary because state and local resources have been exceeded, the OSC is obligated to coordinate the use of these resources to protect public health and the environment. (Note: An example of the OSC's direction of PRP resources could be through participation in the Unified Command or issuance of an administrative order.)

During an oil or hazmat incident, EPA will usually provide OSCs in the inland zone, and the USCG will generally provide OSCs in the coastal zone. The OSC coordinates all federal containment, removal, and disposal efforts and resources during an incident under the NCP or the Federal Response Plan (FRP). The OSC is the point of contact for the coordination of federal efforts with those of the local response community. EPA has approximately 200 OSCs at 17 locations nation-wide; USCG has 46 Marine Safety Offices (MSOs), spread among the nine USCG Districts, each of which is headed by a Captain of the Port (COTP), who acts as an OSC.

Agencies other than EPA or USCG might provide the OSC depending on the incident. While EPA and USCG have primary responsibility under federal laws and regulations, under CERCLA, DOD, DOE, and other federal agencies provide OSCs for incidents for which they have responsibility for releases of hazardous substances. If a federal agency – other than EPA, USCG, DOD, or DOE – has responsibility for an incident, they only provide the OSC if the incident involves non-emergency removal actions. Each of the agencies in the NRS provides resources and technical expertise and has access to a wide range of federal assets, such as equipment and special expertise, through the RRT.

## National Response System Concept of Response



During an emergency, or for other response support needs, the NRS can be accessed 24-hours a day by calling the National Response Center (NRC) at 1-800-424-8802. Located in the USCG headquarters command center and operating 24-hours a day, the NRC immediately relays reports to the cognizant, predesignated OSC.

The NRC receives reports of all chemical, radiological, etiological (causes of a disease or abnormal condition), and biological releases regulated by various federal statutes. (However, the only statutory requirements for reporting to the NRC are the Clean Water Act [CWA] for oil discharges, the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] for hazardous substance releases, and the Hazardous Materials Transportation Act [HMTA] for hazardous materials releases. Additionally, the inherent reporting limitations within each of these statutes prevent the NRC from receiving reports of all incidents.)

In every area of the country, OSCs are on-call and ready to respond to an oil discharge or a hazardous substance release 24-hours a day. When a discharge or release is discovered or reported, the predesignated OSC is responsible for immediately collecting pertinent facts about the discharge or release to evaluate the situation. Based on the evaluation, if the OSC decides a federal emergency response action is necessary, he or she works with state and local emergency response teams, local police and firefighters, and/or other federal agencies to eliminate the danger.

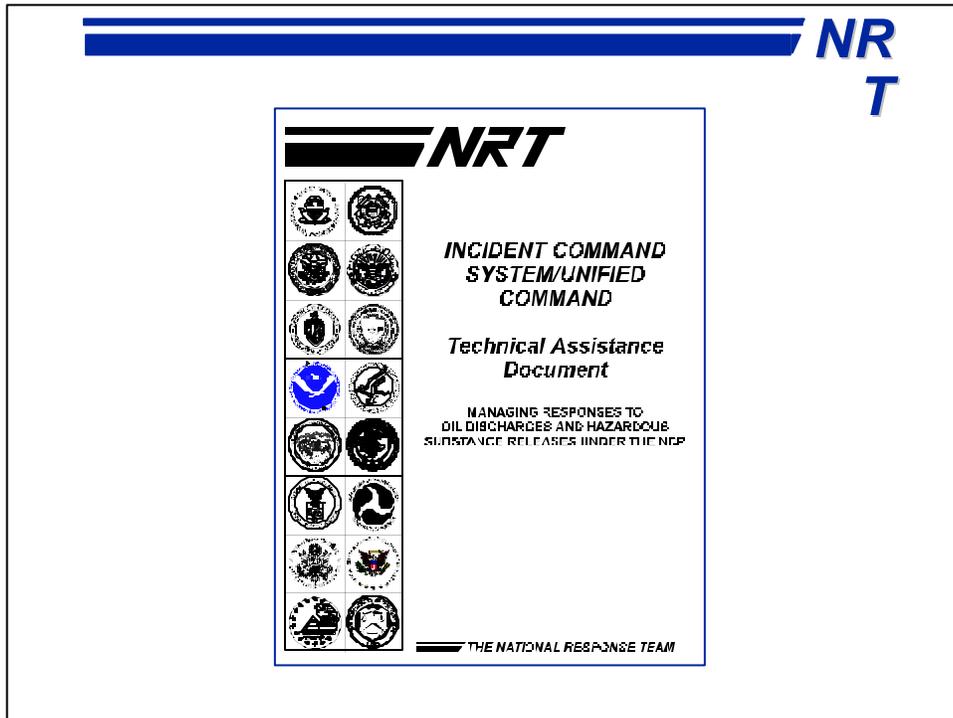
While all significant oil discharges or hazardous substance releases must be reported to the NRC, many inland responses are effectively handled without any direct involvement by the federal government. Others require federal assistance when the incident exceeds state and local capabilities. In other words, the federal government acts as a “safety net” for state, local, tribal, and private party responders. Notification occurs so that federal assistance will be there if needed to ensure that the polluter cleans up the spill or, if necessary, to provide federal assets.

## OSC Response Assets

- Enforcement authorities to ensure that the responsible party (RP) cleans up the spill or release
- Immediate access to technical assistance and cleanup contractors if the response is beyond the RP's capabilities
- Immediate access to Superfund and the OSLTF
- Reimbursement of extraordinary oil or hazmat response costs incurred by state or local responders
- Regional Response Teams (during major incidents)
- Technical expertise from special federal teams
- Special equipment

The OSC can provide valuable assets to assist state and local agencies during an incident, such as:

- Enforcement authorities to ensure that the responsible party (RP) cleans up the discharge or release;
- Immediate access to technical assistance and cleanup contractors if the response is beyond the RP's capabilities;
- Immediate access to Superfund and the Oil Spill Liability Trust Fund (OSLTF) to pay for responses (EPA OSCs are individually authorized through approval of emergency response action to activate up to \$200,000 immediately and may obligate up to \$250,000 under their contracting officer authority. Most removal actions led by EPA cost \$600,000 to \$700,000; however, EPA OSCs may spend as little as \$10,000 or into the millions on cleanup support.) Federal trust funds and federal response equipment are managed by the OSC;
- OSCs can reimburse state or local responders who have incurred extraordinary oil or hazmat response costs;
- As explained in more detail later in the presentation, RRTs can provide assistance to the OSC during an incident;
- Technical expertise from special federal teams, such as the USCG's National Strike Force, EPA's Environmental Response Team, EPA's Radiological Emergency Response Team, Scientific Support Coordinators, and USN/SUPSALV, for air monitoring, health effects advisories, radiation response, public affairs, oil slick tracking, multimedia sampling and analysis, etc.; and
- Special equipment.



**[NOTE TO SPEAKER:** If you have chosen not to present the first four slides of this presentation, you may want to introduce the purpose of this presentation at this point, which is to:

- Introduce the concepts of the Incident Command System/Unified Command (ICS/UC);
- Outline the assistance that can be provided by the Federal On-Scene Coordinator (OSC); and
- Provide an outreach tool to discuss multi-jurisdictional responses with responders and the public. You may want to use this tool to discuss area planning and regional contingency planning with your appropriate state representatives.]

Effective coordination between federal, state, and local responders at the scene of a response is a key factor in ensuring successful responses to major incidents. An ICS/UC is an effective on-site tool to manage emergency response incidents. Unified Command is a necessary tool for effectively managing multi-jurisdictional responses to oil spills or hazardous substance releases. In fact, the guidelines of the National Preparedness for Response Exercise Program (which were issued by DOT, DOI, and EPA) describe the ICS as “the system to achieve the coordination necessary to carry out an effective and efficient response.”

It is important to recognize that an ICS may already have been established by state and/or local responders when the OSC arrives on-scene. Therefore, the purpose of this presentation is to provide a forum to discuss both the interface between a state/local response and the National Response System (NRS), as well as how to best integrate a Federal OSC into an established ICS response. In addition, this presentation stresses that, to ensure an effective and efficient response to an incident, it is critical to identify and specify early on in the planning and preparedness process the on-scene roles and responsibilities of all players in the ICS/UC, including the OSC.

The National Response Team (NRT) developed a technical document, shown above, to help describe how an ICS/UC can be applied to responses conducted under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR part 300) to facilitate acceptance and use of this important response management tool. (The ICS/UC Technical Assistance Document is available on the NRT Home Page at <http://www.nrt.org>.) The document was originally published in 1996. The NRT plans to update the document periodically to reflect the evolving use of ICS/UC.

## Overview

- Purpose of the *Technical Assistance Document*
- Background and authorities
- Incident Command System (ICS) and Unified Command (UC)
  - Relationship between UC and ICS
  - Relationship between the RRT and UC
  - ICS/UC: A management tool
  - Functions of a UC
  - Advantages of a UC within an ICS
- Participants in the UC under the NCP

The following is an overview of the topics that we will be discussing today:

- The purpose of the *ICS/UC Technical Assistance Document* and this presentation.
- The background and authorities of the National Contingency Plan and ICS/UC.
- A brief description of what ICS/UC is and why it is used, including:
  - The relationship between UC and ICS and the relationship between the RRT and UC;
  - Using ICS/UC as a management tool;
  - The functions of a UC; and
  - The advantages of a UC within an ICS.
- An overview of the participants and their roles in the UC under the NCP. (Participants in the UC include the Federal and State OSCs, the local incident commander, and the RP.)

*(Continued on next slide.)*

## Overview (cont'd)

- Responder capabilities and constraints
- Reimbursement programs
- Potential liability
- UC implementation
  - Essential planning elements and ACPs
  - Initial UC meeting activities
  - Role of the RRTs
- ICS/UC at work: Colonial Pipeline case study
- Moving forward
- Sources of ICS information

- A discussion of the capabilities and constraints that responders under the NCP typically bring to a response.
- A discussion of the Superfund and Oil Spill Liability Trust Fund (OSLTF) reimbursement programs.
- A discussion of the potential liability of responders.
- A discussion of implementing a Unified Command through:
  - Contingency planning and area contingency plan (ACP) development;
  - Convening an initial unified command meeting to discuss: (1) setting priorities and objectives, (2) presenting considerations, (3) developing a collective set of incident objectives, (4) adopting an overall strategy, and (5) selecting a Unified Command spokesperson; and
  - The role of the Regional Response Teams (RRTs).
- The Colonial Pipeline incident that occurred in Reston/Herndon, Virginia, will be discussed as an example of ICS/UC at work and effective ICS/UC action, and
- We will conclude with a discussion of next steps for ensuring effective implementation of the ICS with a UC.
- We also provide a list of additional ICS information sources.

## Purpose

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- Provide a planning and outreach tool
- Educate responders
- Increase awareness
- Improve integration and training
- Help develop a common language and response culture
- Help achieve consistent, effective, and efficient response among members of the NRS

The NRT and RRTs hope that the ICS/UC Technical Assistance Document and this corresponding PowerPoint presentation will help:

- Provide a planning and outreach tool;
- Educate responders and increase awareness of the concept of ICS/UC;
- Improve integration and training;
- Help develop a common language and response culture; and
- Help achieve consistent, effective, and efficient response among members of the NRS.

## Background and Authorities

- NCP developed to provide federal agency expertise to responses of oil spills and hazardous substance releases
  - Establishes the mechanism for the NRS
- OPA enacted after *Exxon Valdez* to strengthen the NRS and provide better contingency planning coordination
- NIIMS-based ICS first designed to respond to forest fires
- Under the NCP, the NRS functions as an ICS

In the late 1960s, a major oil spill in Europe made the U.S. Federal Government question its ability to respond to such spills. As a result, several U.S. federal agencies developed a National Contingency Plan, or NCP. The Plan was developed to bring federal agency expertise to bear during responses to oil spills and releases of hazardous substances. The NCP establishes the mechanisms for an NRS. The two primary legal authorities for the NCP are the Clean Water Act (CWA) (33 U.S.C. 1251 et seq.), which establishes a fund for federal responses to oil spills, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. 9601 et seq.), which establishes the Superfund for federal responses to releases of hazardous substances.

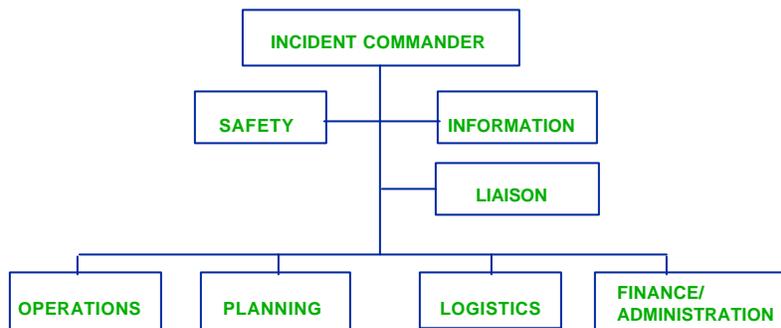
The Oil Pollution Act (OPA) of 1990, which amended the CWA, was signed by the President after both houses of Congress passed the Act unanimously. After several similar proposals had been unsuccessful over the previous 15 years, Congress enacted this legislation partly in response to the *Exxon Valdez* spill and several other incidents. The OPA of 1990 was enacted to strengthen the NRS and provide for better coordination of spill contingency planning among federal, state, and local authorities. To do this, the OPA required revision of the NCP to expand federal removal authority, add responsibilities for Federal OSCs, and broaden preparedness planning and requirements.

The National Inter-agency Incident Management System (NIIMS) was originally designed by a group of local, state, and federal agencies with wild-land fire protection responsibilities, to improve the ability of fire forces to respond to any type of emergency. The NIIMS-based ICS is most commonly used and endorsed by the USCG as the response management system for oil spills in the coastal zone.

The NCP states that the NRS functions as an ICS under the direction of the OSC, with the basic framework for the response management structure being 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. Therefore, the NRT endorses the use of the ICS/UC and hopes that this presentation will provide an understanding of the basic concepts of ICS/UC.

## Incident Command System

- Provides organizational structure for response to oil spills and discharges and hazardous substance emergencies
- Divides emergency response into five functions: Command, Operations, Planning, Logistics, and Finance/Administration



An ICS provides an organizational structure for all emergencies, including response to oil spills and discharges and hazardous substance emergencies. In the inland zone, the ICS is typically implemented at the local level by first responders (e.g., fire, police, emergency management agencies). While ICS is an optional, but strongly endorsed, tool for use by EPA, USCG has formally adopted the use of ICS USCG-wide under Commandant Instruction 3120.14. USDA also has adopted ICS – the U.S. Forest Service originally established ICS for fighting forest fires. FEMA and other federal agencies also endorse ICS.

The ICS divides an emergency response into five manageable functions that are essential for emergency response operations:

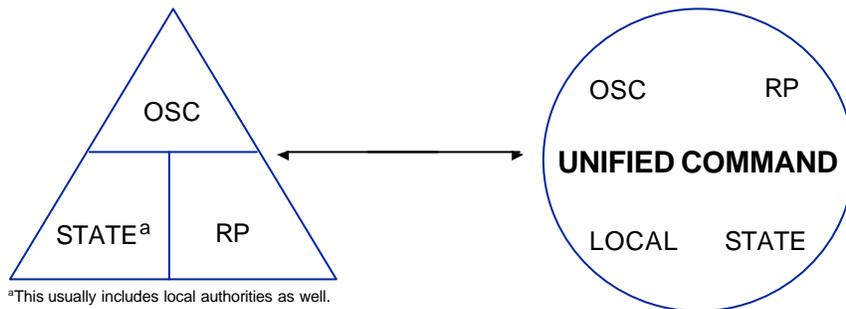
- Command;
- Operations;
- Planning;
- Logistics; and
- Finance and Administration.

The following is a list of the duties generally associated with each ICS function: Command staff set response objectives and manage coordination, the Operations staff undertake tactical response actions, the Planning staff investigate and establish a technical basis for action plans, the Logistics staff provide equipment and services, and the Finance and Administration staff manage finances and administrative support. The Command includes the Incident Commander, as well as his or her “Command Staff,” as included in the Safety, Information, and Liaison positions. Each of the other sections (Operations, Planning, Logistics, and Finance) are managed by a section chief and supported by other functional units.

Depending on the magnitude and impact of the discharge or release, the Congressional liaison position will be handled by the liaison officer. Similarly, any legal issues will be handled by a legal technical specialist. Technical specialists are under the direction of the “Planning” function, but can be assigned anywhere in the ICS organization.

## Unified Command

- Component of an ICS
- Creates organizational link between the organizations responding to an incident
- Includes local involvement

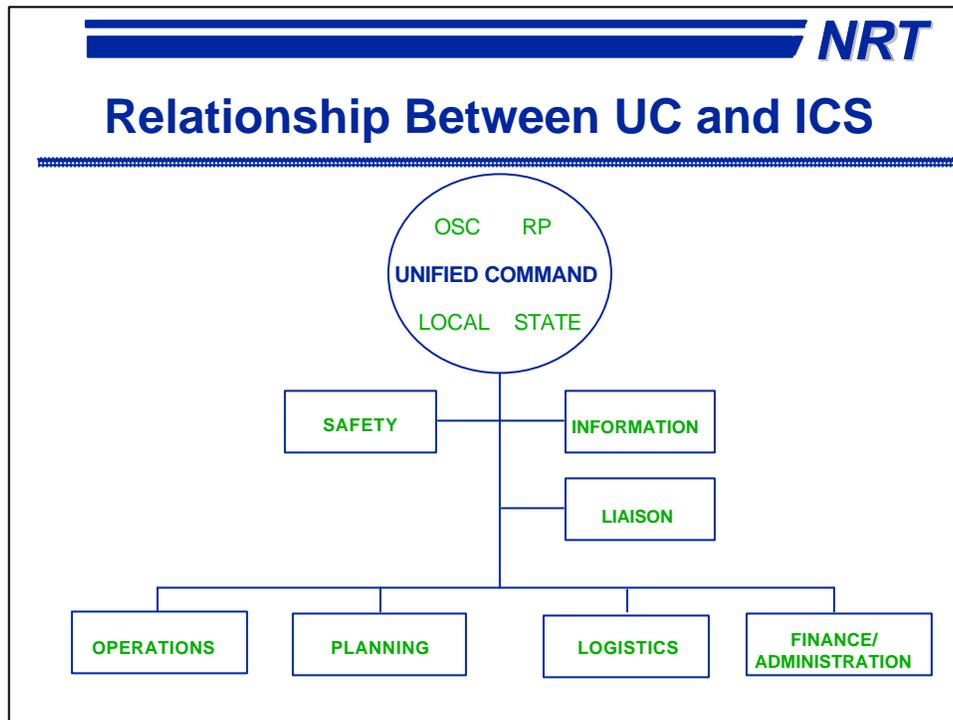


Often the command function is handled by a single Incident Commander (supported by the command staff), who directs the efforts and receives input from the four supporting areas. An ICS may be expanded to include a Unified Command for complex responses, which often require multi-agency resources on the federal, state, and local levels. The ICS/UC brings together the “Incident Commanders” of all major organizations involved in the response.

Under the NCP, the Unified Command typically consists of the Federal OSC, the State OSC, the Incident Commander of the RP, and usually the local Incident Commander.

As illustrated in the graphic on this slide, the alteration of the triangular-depicted UC to the circular-depicted UC more accurately represents the presence of local responders. As the local response community continues to receive more training on UC, new issues regarding roles and responsibilities are being raised. For example, if a UC has been established by the local responders when the OSC arrives at the incident scene, who should serve as the Incident Commander? The local community should be included in discussions that address issues regarding the roles and responsibilities of those included in the UC.

In addition, the membership of the UC will also be determined by: (1) the specifics of the incident; (2) planning discussions held before the response; or (3) at a minimum, decisions reached during the initial meeting of the UC.



As a component of an ICS, the UC provides the organizational management tool to facilitate and coordinate the effective involvement of the various agencies. It creates the link between the organizations responding to the incident and provides a forum for these agencies to make decisions that all responders can agree with. Under this single UC, the various jurisdictions and/or agencies are blended together throughout the Incident Command System to create an integrated response team.

It is important to recognize that the key players in the response management system maintain a separate internal management infrastructure during a response; they do not relinquish agency authority, responsibility, or accountability. Modification of the ICS into a UC enables responders to carry out their own responsibilities, while working cooperatively within one response management system. Depending on the needs of the incident, it may be appropriate to modify the ICS with a UC, while in other circumstances it may not. This decision will be based in large part upon the level of the response and the need for additional resources.

With the evolution of UC, when an incident escalates and more than one agency or jurisdiction becomes involved, the ICS can be expanded to manage the increasing demands of the incident, utilizing personnel and facilities as dictated by the incident.

The roles of the various ICS participants will vary depending on the incident and may even vary during the same incident. Based on a consensus decision by members of the UC, one agency may fulfill the duties of the Operations function, whereas several state agencies may be needed to fulfill the duties of the Planning function during an incident. In addition, these two functions may be responsible for their own logistics and finance support. The key to successful implementation of an ICS/UC is planning and exercising at the regional and area levels to help all participants understand their roles and responsibilities.



## **ICS/UC: A Management Tool**

- Assists the OSC in directing, monitoring, and coordinating response efforts
- Responding organizations retain their authorities and responsibilities
  - RP conducts response under the oversight/direction of the OSC
- Provides an avenue for response organizations to establish input in the decision-making process
- Provides access to information

The use of ICS/UC as a management tool does not relieve the OSC of her or his obligation to direct, monitor, and coordinate response actions. Rather, the ICS/UC is a useful mechanism in obtaining input from other responders to help the OSC in directing and coordinating response efforts. Under the NCP, each responding organization has a role to play. The UC allows all parties with jurisdictional or functional responsibility for the incident to work together to develop a common set of incident objectives and strategies. At the same time, the UC allows each responding organization to maintain its authorities and responsibilities. The RP is expected to conduct the response under the oversight and/or direction of the OSC. State and local responders are responsible for protecting public safety and thus, for responding to threats to the public safety.

As we saw in the UC circle on the previous slide, the UC provides a place for the decision-makers from each of the responding organizations to come together. Finally, the ICS/UC also allows for information sharing both horizontally and vertically throughout the response organization, allowing a multi-jurisdictional response to be conducted effectively. A Joint Information Center (JIC) may also be associated with the ICS/UC, under the direction of the UC.

As outlined in the preamble to the 1993 NCP proposed rule, the emphasis during oil spill response is on coordination and cooperation, rather than on a more rigid system of command and control. The OSC, the state/local government representatives, and the RP all are involved with varying degrees of responsibility, regardless of the size or severity of the incident. The OSC in every case retains the authority to direct the spill response, and must direct responses to spills that pose a substantial threat to the public health or welfare of the U.S. In many situations, however, the OSC will choose to monitor the actions of the RP and/or state/local governments and provide support and advice where appropriate. The response management structure does not attempt to prescribe a specific item-by-item functional description of where particular organizations or individuals fit within a single response structure for a given response. Developing, adapting, and implementing a response management system, such as an ICS/UC, is the responsibility of the OSC and the Area Committee through the ACP.

## **Functions of a Unified Command**

- Provides overall response direction
- Coordinates communication and resources
- Establishes incident priorities
- Develops mutually agreed-upon incident objectives and strategies
- Assigns objectives to response structure
- Reviews and approves incident action plans
- Ensures integration of response organization
- Establishes protocols

The following is a list of UC functions that must be addressed by the Incident Commander of any response to ensure that all participating agencies are kept properly informed:

- Provide overall response direction;
- Coordinate effective communication;
- Coordinate resources;
- Establish incident priorities;
- Develop mutually agreed-upon incident objectives and strategies;
- Assign objectives to response structure;
- Review and approve incident action plans;
- Ensure integration of response organization; and
- Establish protocols.

## **Advantages of a UC Within an ICS**

- Use of a common language and response culture
- Optimization of combined efforts
- Elimination of duplicative efforts
- Establishment of one command post
- Collective approval of shared operations, logistics, planning, and finance
- Encouragement of cooperative response environment
- Allowance for shared facilities
- Development and implementation of one consolidated Incident Action Plan

Advantages to using the ICS/UC include:

- Use of a common language and response culture;
- Optimization of combined efforts;
- Elimination of duplicative efforts;
- Establishment of one command post;
- Development of collective approval of shared operations, logistics, planning, and finance;
- Encouragement of cooperative response environment;
- Allowance for shared facilities, which not only reduces costs for those responding, but also maximizes efficiency and reduces communication breakdowns; and
- Development and implementation of one consolidated Incident Action Plan.

## **NRT** **Participants in the Unified Command** **Under the NCP**

- Under the NCP, the UC typically consists of the Federal OSC, State OSC, and RP
- Local government is recognized as the key emergency response participant
  - Often first to arrive at the scene
  - Possess authorities such as evacuation and shelter-in-place orders and arrest powers
  - May establish an initial ICS
  - Relationships can vary depending on state laws and/or practices

- The NRT and RRTs recognize local government as a key emergency response participant to protect public health and the environment for most emergencies under the jurisdiction of the NRS.
  - Frequently, the first responders to arrive at the scene of an incident will be emergency response personnel from local fire and police departments.
  - Further, these organizations possess specific public safety authorities such as evacuation and shelter-in-place orders and arrest powers.
- The majority of local responders are familiar with the ICS in the inland zone, and are likely to immediately establish an ICS. As federal, state, and private party responders arrive on-scene, they would be integrated into the ICS organization and a UC would be established to direct the expanded organization in response to the multi-jurisdictional incident.
- Although the role of state and local responders can vary depending on state laws and/or practices, it is always expected that local responders will be part of the ICS/UC.

## Responder Capabilities and Constraints

- Federal On-Scene Coordinator
  - *Capability:* Responsible for coordinating and directing response resources. Ultimately responsible for ensuring the response is consistent with the NCP
  - *Constraint:* Lacks ability to initiate evacuations
- State responders
  - *Capability:* May have more specialized capabilities than local responders
  - *Constraint:* May have limited resources

Each player in the UC (i.e., the Federal OSC, the RP, and state and local responders) brings a variety of capabilities and constraints to responses. For example:

- The OSC is responsible for directing private response resources, as well as federal resources including financial assets, potential equipment, and special forces available to them under the NCP. It is important to point out that the OSC brings with him or her the organizational components of the NRS and is ultimately responsible for ensuring that the response is conducted in a manner consistent with the NCP (as outlined in CERCLA Section 106). The OSC also must meet the “direct” mandate under the Oil Pollution Act (OPA) of 1990. (OPA states that the OSC must “direct” the response actions [not resources] to substantial threat discharges. However, realistically, the OSC can only command other federal resources and those of the RP.) In addition, the OSC is not able to initiate evacuations, shelter-in-place orders, or arrests.
- State responders may have more specialized capabilities than local responders, and also may have special authorities, depending on the state. States may seek reimbursement from Superfund or the OSLTF for certain response actions. However, state resources may be limited, too. State responders may also have to adjust response efforts to account for resource constraints and consider economic impacts and stakeholder expectations.

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## Responder Capabilities and Constraints (cont'd)

- Local responders
  - *Capability:* Possess authorities such as evacuation and shelter-in-place orders and arrest powers. May also establish an initial ICS
  - *Constraint:* May have limited resources
- Responsible party
  - *Capability:* Provides an Incident Management Team to assist in the response effort
  - *Constraint:* May have limited resources for responding and must address major financial and legal issues

- Local responders are usually the first line of defense during a response and may establish an initial ICS. Local responders possess authorities such as evacuation and shelter-in-place orders and arrest powers. They also may seek reimbursement from Superfund or the OSLTF for certain response actions. However, local response resources may be limited, and local responders may have to adjust response efforts to account for resource constraints. Local responders should also attempt to minimize the economic impact of the incident while meeting certain reasonable stakeholder expectations.
- The RP is required to be prepared to provide an Incident Management Team for responding to incidents it causes. However, RPs may have limited resources and must address financial and legal issues. In some cases, the RPs limited resources will need to be supplemented by available federal, state, and local resources. The RP must also maintain business survival by reestablishing commercial operations as soon as possible and minimizing costs, considering insurance limitations, and minimizing prospects of criminal prosecution.

Under OPA, each RP is liable for removal costs and damages unless the oil spill was the result of natural causes, war, or an independent third party. There are limits to an RP's liability unless the RP exhibited gross negligence or willful misconduct, or if the RP violated a federal safety, construction, or operating regulation.

## Reimbursement Programs

- Superfund is administered by EPA's Office of Emergency and Remedial Response and can be accessed:
  - By the federal OSC
  - Through the claims process (up to \$50,000)
  - Through the Local Government Reimbursement (LGR) program
- The OSLTF is administered by the NPFC and can be accessed:
  - By the federal OSC directly
  - Through a state funding request (up to \$250,000 per incident)
  - By submitting a claim to the NPFC
  - By a lead federal trustee for the initiation of a natural resource damage assessment for a particular incident

- Superfund is administered by EPA's Office of Emergency and Remedial Response (OERR), in cooperation with individual states and tribal governments. Superfund can be accessed in three ways:
  - By the federal OSC, which enables them to conduct clean-up actions;
  - Through the claims process. Claims can be made by any person other than the U.S. Government, the states, and political subdivisions thereof, except to the extent that the claimant is otherwise compensated for the loss; and states and political subdivisions if they are potentially responsible parties (PRPs). Only response actions that EPA has preauthorized are eligible for reimbursement through the claims process.; and
  - Through the Local Government Reimbursement (LGR) program.
- The USCG's National Pollution Funds Center (NPFC) administers the Oil Spill Liability Trust Fund (OSLTF) and addresses funding issues that arise from discharges and threats of discharges of oil. There are four primary ways the fund can be accessed:
  - By the federal OSC directly for response costs, including the cost of response contracts and government personnel travel and per diem, or by a contractor working for the federal OSC;
  - Through a state funding request for up to \$250,000 per incident. States need to request funding through their federal OSC in order to obtain funding through this mechanism. Further, federal, state, and local agencies can obtain additional funding from the OSLTF via an OSC-approved Pollution Removal Funding Authorization (PRFA) obligated by the NPFC;
  - By submitting a claim to the NPFC. Claims can be submitted by individuals, companies, state governments, or federal agencies requesting compensation for removal costs or damages, including natural resource damages; and
  - By a lead federal trustee for the initiation of a natural resource damage assessment (NRDA) for a particular incident.

## Responder Potential Liability

- To avoid liability, responders should:
  - Develop a thorough understanding of their job and their job description;
  - Stay within the scope of their authority during a response;
  - Keep records of critical events and decisions;
  - Understand the statutes and regulations that govern their work; and
  - Be aware of constitutional torts.

Many states have specific tort<sup>1</sup> immunity status for emergency responders that exempt them from all liability for actions taken in the course of their job unless their actions (or lack thereof) exhibited gross<sup>2</sup>, wanton, or willful negligence. (See tort discussion below.) While responders can be sued individually, in general, if the public official can show they were “within the scope” of their authority, their agency will provide for their defense, but responders should ask within their agency to find out. To avoid being sued for gross negligence, a responder should know their job description, including their functional statement that ties the job description to the mission of the agency. This defines one’s scope of authority, which is critical for a responder to understand. In addition, responders should make time to record critical events and decisions. It is also important for responders to understand the laws and statutes that they are working under. For example, OSCs should be sure to work within the scope of the NCP when applying federal regulations (e.g., CERCLA, OPA).

Responders generally are well protected under the law, and in general, to avoid being sued, they must act reasonably. In *Harlow v. Fitzgerald* (457 U.S. 800; 1982), the court ruled that “[G]overnment officials performing discretionary functions generally are shielded from liability for civil damages insofar as their conduct does not violate clearly established statutory or constitutional rights of which a reasonable person would have known.” However, if a public official violates a statute during their job, not only are they individually responsible, but their agency may not pay for their defense. In addition, if a responder is sued for violating a constitutional tort<sup>3</sup>, it is unclear whether the government is obligated to provide the employee’s defense.

As background, in 1946, the Federal Tort Claims Act was passed to allow claims to be brought against the government. In 1988, the Supreme Court in *Westfall v. Irvin* (Sup. Ct. 86-714-Opinion), upheld that for federal officials to have absolute immunity from state tort actions, their conduct must be both (a) within the scope, and (b) discretionary in nature. This ruling prompted Congress to pass the Federal Employees Liability Reform and Tort Compensation Act of 1998 (Pub. L. 100-694), which amends 28 U.S.C. 2671, and circumvents *Westfall* by substituting the federal government as defendant for any employee “acting within the scope.” However, this Act does not include constitutional torts.

<sup>1</sup>The definition of a “tort” is the unlawful violation of a private legal right other than a mere breach of contract, express or implied. A tort may also be the violation of a public duty if, as a result of the violation, some special damage accrues to the individual.

<sup>2</sup>The definition of “slight” diligence is that degree of care which every person of common sense, however inattentive they may be, exercises under the same or similar circumstances. The absence of such care is termed “gross” negligence.

<sup>3</sup>Constitutional torts are torts to one’s person and property by a federal agent (including federal, state, or local government officials) that are committed without due process, or committed in violation of constitutionally-protected rights. Examples of a constitutional tort include violations of due process, privacy, equal protection, and minority protections.

NOTE: The text for this slide was taken from a paper titled, “Legal Liabilities of Emergency Response Officials,” by Al Smith, dated July 1998.

## Essential Planning Elements

- Formalized structure accepted by all parties
- Well-defined functions and responsibilities
- Designated individuals for each function
- Defined and accepted reporting mechanisms
- Participant commitment to respond as a team
- Training and familiarity with ICS/UC addressed in plans
- Defined relationships to entities outside ICS but relevant to the NRS

According to the NCP, the area contingency planning process, which brings together appropriate representatives from federal, state, and local agencies to enhance contingency planning, is the forum for working out the details of how the ICS will be applied in each area. To ensure that ICS/UC is effectively implemented, discussions must occur at the Area Committee level and in the Area Contingency Planning process. When responders understand each other's roles and responsibilities and have a plan for working together, they are more likely to be able to reach consensus on response strategies and tactics.

For the ICS/UC to be effective, the following elements should be in place and documented in relevant plans well before an incident occurs:

- The structure must be formalized and accepted by all parties concerned;
- Specific functions and responsibilities must be well defined;
- Individuals must be designated for each function and the reporting mechanisms defined and accepted;
- The participating organizations must make a committed effort to respond as a team;
- Contingency plans (including ACPs, facility and vessel response plans, and LEPC plans) must address training and ensure familiarity with ICS utilizing a UC; and
- Relationships and interactions with entities outside the ICS but relevant to the NRS (e.g., RRT, Natural Resource Trustees) must be defined.

## **Application of ICS/UC: Area Contingency Plans**

- **Area Contingency Plans should consider:**
  - Jurisdictional responsibilities
  - Roles of all levels of government in the Unified Command (i.e., federal, state, and local)
  - Financial agreements
  - Information dissemination
  - Communications
  - Training and exercising
  - Logistics
  - NRS organizational components
  - Lessons learned

The NCP does not attempt to prescribe specifically how a particular organization or individual fits within a given response structure. The OSC and the Area Committee are responsible for developing, adopting, and implementing a response management system, through the ACP. An ICS/UC based on the National Inter-agency Incident Management System (NIIMS) can be used as the model for response management in the ACP to ensure an effective response. Included in this model, each ACP should fully address and describe key organizational components of the NRS, such as the role of the RRT. Because key players differ from area to area, however, Area Committees must have flexibility to adapt the ICS/UC to be effective in each specific area.

## **Implementation During an Incident: Initial Unified Command Meeting**

- Initial meeting opportunity for open discussion to:
  - Set priorities and objectives
  - Present considerations
  - Develop a collective set of incident objectives and establish and agree on acceptable priorities
  - Adopt an overall strategy
  - Establish a JIC
  - Designate one agency official as a Unified Command spokesperson

But when an incident does occur, and plans need to be implemented, open and *early* discussion between response commanders is critical to ensuring effective implementation of the NRS and use of ICS/UC. The establishment of a UC must begin with an initial meeting to set priorities and objectives, present considerations, and develop a collective set of incident objectives. This meeting should include *only* the Incident Commanders and their staffs from each of the involved jurisdictions. During this meeting – which should be brief – the Incident Commanders must come to consensus on priorities and objectives, a collective set of incident objectives, an overall strategy, and a Unified Command spokesperson before they can effectively work together to carry out the response. The initial meeting will also provide an opportunity for the Incident Commanders to establish a JIC as needed. In addition, if not established in pre-planning activities, the Incident Commanders must use the initial meeting as an opportunity to determine the appropriate roles and responsibilities of all the players involved in the ICS (e.g., state and local governments, the RP). As discussed earlier, this conversation will help establish the membership of the UC.

Although an initial meeting is critical for ensuring the effective integration of all responders, these steps may have to be revisited periodically as information on the incident or the demands of the incident change.

These meetings will provide a private opportunity for the Incident Commanders to speak openly and honestly about their priorities, considerations, and concerns. However, once participants in the Unified Command leave this meeting, they must speak with one voice.

***Initial Unified Command Meeting***  
**Step 1: Set Priorities and Objectives**

- Four primary objectives are established by the NCP for the NRS:
  - Preserve safety of human life
  - Prevent the event from worsening
  - Minimize effects to the environment
  - Address these three priorities concurrently
- But, for the Unified Command to be effective, other objectives must also be considered

For the Unified Command to work, each participant must be committed to working together to solve a common problem. Each responding agency will have objectives to carry out. Fortunately, the primary objectives of each responding agency are established under the NCP as “national response priorities” and include:

- Preserving safety of human life;
- Stabilizing the situation to prevent the event from worsening;
- Using all necessary containment and removal tactics in a coordinated manner to ensure a timely, effective response that minimizes adverse impacts to the environment; and
- Addressing all three of these priorities concurrently (that is, not sequentially, but all at once).

However, each responding agency will likely have other significant priorities requiring consideration. These might include such factors as:

- Maintaining business survival;
- Minimizing response costs, or keeping them within liability or insurance limits;
- Maintaining or improving public image;
- Minimizing economic or tourist impact (e.g., public use might be a key consideration for a state or local official as a result of an incident affecting beaches in a prime vacation area prior to spring break);
- Minimizing natural resource restoration costs;
- Evaluating prospects of criminal prosecution;
- Obligating that the OSC meet the “direct” mandate per OPA 90 (OPA states that the OSC must “direct” the responses to certain incidents. However, realistically, the OSC can only command other federal resources and those of the PRP. As a result of this requirement, however, the OSC may need to document his or her role in “directing” the response through participation in the Unified Command); and
- Meeting certain reasonable stakeholder expectations (public, agency, interest group, or political).

Understanding all the issues facing the participants is important in any negotiation – and the Unified Command must be viewed as a negotiation, because consensus must be reached for the Unified Command to be effective.

***Initial Unified Command Meeting***  
**Step 2: Present Considerations**

- All responding organizations will have constraints on their response capabilities
- Constraints and capabilities must be shared openly

At the onset of any initial meeting, UC members have an obligation to raise and discuss the limitations of their response capabilities. All Incident Commanders must be free to speak openly with the other members of the UC about their constraints or limitations, whether practical or political in nature, because these other constraints may have very real impact on how the Unified Command's objectives can best be achieved. As a result, it is important for all Incident Commanders to identify and share their constraints or other considerations with the other participants in the UC. This process will help to clarify what each response organization can provide in terms of authorities, equipment, skills, and experience.

***Initial Unified Command Meeting*****Step 3: Develop a Collective Set of Incident Objectives**

- Identify what the Unified Command as a *whole* needs to accomplish
  
- Develop a set of incident-specific objectives
  - Helps to provide focus to the growing response organization
  - Includes establishing and agreeing upon acceptable priorities

The planning process for UC is similar to that used for a single jurisdiction or agency incident. However, because each agency will bring its own set of objectives and considerations to the response, the UC must decide upon a collective set of incident objectives before an overall response strategy can be developed. To be effective, these objectives should be specific, measurable, assignable, reasonable, and time-related (a.k.a. SMART objectives). The UC must come to consensus on a set of general objectives that can then be documented to provide focus for the response organization. This process includes establishing and agreeing upon acceptable priorities.

***Initial Unified Command Meeting***  
**Step 4: Adopt an Overall Strategy**

- Determine how to accomplish the objectives
- Request preferred strategies for later approval as necessary

Strategy is the development of policies and plans to achieve the objectives for a response. If the UC knows exactly how to accomplish an objective, it should specify the strategy. However, because there are frequently multiple possible strategies that would accomplish the same objective, the UC will often ask the planning and operations section chiefs to recommend preferred strategies for later approval. This allows for better input and discussion from the responders, and also reduces meeting time for the Incident Commanders.

***Initial Unified Command Meeting*****Step 5: Select a Unified Command Spokesperson**

- Establish a JIC
- A single spokesperson is typically needed to speak for the Unified Command
  - One of the members of the Unified Command
  - Point of contact and a single voice to the ICS
  - Physical spokesperson at internal and external briefings
  - Final procedural check

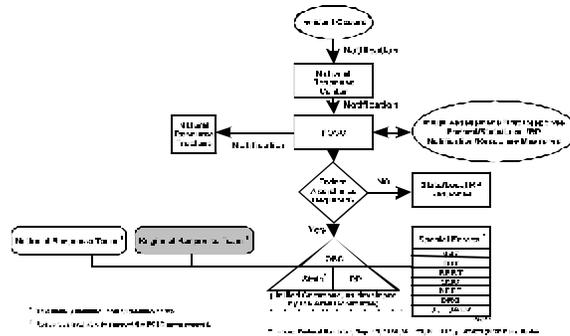
Frequently, the Unified Command will establish a JIC and designate a single spokesperson. The spokesperson:

- Is typically a member of the Unified Command;
- Serves as a point of contact and a single voice to the members of the Incident Command System as a whole;
- Is the physical spokesperson at external and internal briefings (e.g., although technical information will be released through the JIC, the spokesperson may assist the information officer by providing press conferences when needed by the JIC);
- Does not make Unified Command decisions; and
- Can also be used as a final procedural check before response actions are undertaken. For instance, the spokesperson may be included in *in situ* burn plans as the person with whom the responders in the operations section will check before the burn is ignited.

The spokesperson may change during the course of an incident as the situation develops. For example, a different agency may designate a spokesperson if it has more expertise in a particular area at a certain time. In addition, different departments within the same agency could designate a spokesperson at different times during the same incident, as appropriate.

## The Role of the Regional Response Teams

### National Response System Concept of Response



Ideally, consensus will be achieved within the UC. However, if consensus is not reached during the initial meeting of the UC, the RRT can be used as a forum for achieving consensus. State and local representatives are encouraged to actively participate in their standing RRT. As a result, the incident-specific RRT provides a mechanism for the Federal OSC to seek support and conflict resolution from the leadership of his or her own agency, other federal agencies, and state and local governments.

## **ICS/UC at Work: Colonial Pipeline Case Study**

- Pipeline rupture ejected No. 2 heating oil 100 feet into the air
- An estimated 477,436 gallons of oil were discharged
- Oil flowed into a tributary of the Potomac River

This is an example of how an ICS/UC was used at an actual response. The emergency response to the Colonial Pipeline spill in the Reston/Herndon area of the State of Virginia presents an example of successful use of the ICS/UC. This example is included in an appendix to the NRT's ICS/UC technical assistance document.

- The Colonial Pipeline spill was the result of a rupture in a 36-inch oil pipeline, operated by the Colonial Pipeline Co. (the RP), that extends along the East Coast from the Gulf of Mexico to Maine. The regulation of the pipeline's operation falls under the jurisdiction of the U.S. Department of Transportation. The rupture caused No. 2 heating oil to be ejected 100 feet into the air, and the oil flowed from the break to the Sugarland Run creek, a tributary of the Potomac River.
- Of the estimated 477,436 gallons of oil that were discharged into the environment, 372,498 gallons of oil were finally recovered from 407,436 gallons of oil/water collected. An additional 100,000 gallons of oil were recovered directly from the inactivated pipeline.

*(Continued on next slide.)*

**ICS/UC at Work:  
Colonial Pipeline Case Study (cont'd)**

- Fairfax County Fire and Rescue Department and the PRP were first to respond
  - Established an ICS
  - Began response actions
- As other responders deployed, ICS transitioned to an ICS/UC

Upon arrival at the scene, the Federal OSC was apprised of an Incident Command System led by the Fairfax County Fire and Rescue Department and the RP, who by then had deployed four booms to recover the oil from Sugarland Run. It was immediately apparent that the scope of the discharge extended beyond the boundaries of Fairfax County and potentially beyond the boundary of the Commonwealth of Virginia, exceeding the response capabilities of the local and state authorities.

The Federal OSC assumed control of the response and began the transition to an ICS/UC, bringing in representatives from the Commonwealth of Virginia, the State of Maryland, the District of Columbia, and local municipalities, to join representatives of the Colonial Pipeline Company who were already on site. Recognizing the magnitude of the incident, the Federal OSC requested assistance from the U.S. Coast Guard National Strike Force Atlantic Strike Team, who arrived at the scene with specialized equipment and response personnel. Later, personnel and equipment from the Coast Guard Gulf Strike Team and Navy Supervisor of Salvage were also utilized.

## Responding Organizations

- USCG Atlantic Strike Team
- USCG Gulf Strike Team
- MD Dept. of the Environment
- DC Water Hygiene Branch
- Natl. Transportation Safety Board
- U.S. Army Corps of Engineers
- U.S. Marine Corps
- U.S. DOI
- VA Dept. of Emergency Services
- U.S. EPA - Region 3
- TAT
- USN/SUPSALV
- U.S. DOT - OPS
- VA DOT
- VA Water Control Board
- USCG MSO
- USCG NPFC
- N. VA Regional Park Authority

As shown on this and the next slide, numerous federal, state, local, and RP responders can be expected at any significant incident. A Unified Command is critical to ensuring that all responders work together in the most efficient and effective way. The ICS/UC allowed the many incident commanders from various jurisdictions to manage and coordinate effectively an emergency response that included the participation of approximately 40 federal, state, and local agencies.

*(Continued on next slide.)*

## **Responding Organizations (cont'd)**

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- VA Dept. of Game & Inland Fisheries
- Fairfax County Fire & Rescue Dept.
- Fairfax County Health Dept.
- Fairfax County (Board of Supervisors)
- Fairfax County Water Authority
- Fairfax County Animal Control
- Loudon County Fire & Rescue Dept.
- Loudon County Health Dept.
- Loudon County (Board of Supervisors)
- Loudon County Animal Control
- Town of Herndon (Town Director)
- Colonial Pipeline Co.

**NRT**

**Effective ICS/UC Actions to the  
Colonial Pipeline Response**

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- Served to direct cleanup operations without delay
- Facilitated communication between the UC and the public and the media
- Allowed cooperative decision-making process and settled disputes quickly

The following is a list of actions taken by the Unified Command at the Colonial Pipeline spill which contributed to an effective and successful response:

- The ICS/UC served to direct cleanup operations without delay. For example, when the RP petitioned the RRT for approval to use a chemical oil coagulant to aid in oil recovery, the presence of some RRT members at the site and their understanding of the product facilitated a quicker response from the RRT. Having representatives on scene from all levels of government as well as from the RP facilitated coordination at all levels.
- In addition, communication between the UC and the public and media was well orchestrated due primarily to the resources of local government and the use of a JIC.
- The ability of the UC to reach a cooperative decision quickly kept response activities moving and ensured that all interests, federal, state, and local, were being considered and protected. A consensus was quickly reached during the few disputes, and the UC's decisions were actively enforced.

*(Continued on next slide.)*

**NRT**

**Effective ICS/UC Actions to the  
Colonial Pipeline Response (cont'd)**

- Early and continued presence of the USCG Marine Safety Office and National Strike Force
- Early coordination with the RRT
- Multi-level government representation in the UC
- Close and early coordination with Natural Resource Trustee agencies

- Early and continued presence of the Coast Guard Marine Safety Office and National Strike Force in the Unified Command provided continuity throughout the response. Their expertise, knowledge, and the additional resources they made available were invaluable to the successful management of the response. The southern sector command center, set up by the Coast Guard (Baltimore) Marine Safety Office to supervise downstream recovery operations, relieved the Federal OSC (EPA) of long-distance management.
- Early coordination with the RRT played a key role in the success of mitigation efforts by giving the Federal OSC rapid access to a large supporting team and assisting in the resolution of many problems. The presence of the Region 3 EPA RRT Co-Chair on site was advantageous for obtaining critical resources, guidance, and approvals.
- Having representatives from all levels of government in the Unified Command expedited coordination efforts with other agencies at all levels.
- Close and early coordination with Natural Resource Trustee agencies ensured that there was no duplication of effort during the assessment of affected areas, and helped EPA Enforcement in their efforts with the RP. Representatives of these agencies helped the Unified Command achieve an integrated spill response and damage assessment and address the concerns of the public.

## Moving Forward

- There are three keys to effective implementation of the ICS/UC as a tool of the NRS:
  - Learn the NRS and the ICS
  - Start early in the game
  - Practice
- Federal, state, and local officials should plan and conduct exercises
  - Develop a sense of team work and trust

In conclusion, the importance of planning and preparedness in ensuring that the ICS/UC is fully effective should be stressed again. The keys to successful implementation of an ICS as a tool of the NRS are planning, training and exercising long before an incident occurs. There are three keys to effective implementation of the ICS with a UC:

*Learn the ICS.* The NRT encourages all responders to learn the NRS and the ICS. The better it is understood, and the more familiar it is, the easier it will be to form a common structure when demanded by an incident.

*Start early in the game.* As soon as it is determined that two organizations have responsibility for, or in, a response, an ICS/UC should be implemented. How the ICS/UC will be implemented in varying situations should be decided in advance of an incident.

*Practice.* Periodic training/drills are crucial to providing training and role play opportunities in a non-threatening way.

- The U.S. Occupational Safety and Health Administration (OSHA) and EPA have promulgated identical standards (at 29 CFR 1910.120 and 40 CFR part 311, respectively) to protect employees engaged in hazardous waste operations and emergency response. These standards apply to all employees engaged in emergency response activities and principally cover emergency planning, employee training, and employee medical surveillance.

When plans and procedures are understood, agencies can support each other effectively. However, each response results in new lessons learned, which necessitates continuing refinement of the procedures and processes, development of better methods, and meshing of agency needs and actions. Planners and responders at all levels need to understand the authorities and resources each response organization brings to a specific incident. ICS/UC is an important concept to practice as part of response exercises and include in local and area contingency plans. Such exercising and planning will facilitate coordination and cooperation between federal, state, local, and private party responders when the ICS/UC is implemented at an incident, and make sure that all responders are able to work together effectively to protect human health and the environment.

## Sources of ICS Information

- NRT's *Minimum Essential ICS Training Elements*
- NRT's *Federal Natural Resource Trustees and the ICS/UC*
- Annex 3 of the NRT ICP Guidance
- USCG's Oil Spill Field Operations Guide
- FEMA's and the U.S. Fire Administration's Computer-assisted Instruction for ICS: Self-study Course
- USCG's OSC2 – On-scene Command and Control Prototype
- *Setting Objectives in a Unified Command: The "Cost" of Leadership*, 1999 IOOSC Proceedings
- *Incident Command System*, Fire Protection Publications, Oklahoma State University

- NRT:
  - Minimum Essential ICS Training Elements, at <http://www.nrt.org> (See NRT Publications.)
  - ICS/UC Technical Assistance Document: Managing Responses to Oil Discharges and Hazardous Substance Releases Under the NCP, at <http://www.nrt.org> (See NRT Publications.)
  - Federal Natural Resource Trustees and the ICS/UC, at <http://www.nrt.org> (See NRT Publications.)
  - Annex 3 of the NRT Integrated Contingency Plan (ICP) Guidance (61 FR 28641) (Annex 3 [on page 28647] provides a description of a response management system based on NIIMS ICS.)
- USCG:
  - USCG Oil Spill Field Operations Guide, at <http://www.uscg.mil/hq/g-m/nmc/response/fog.pdf>
  - USCG HQ ICS web site, at <http://www.uscg.mil/hq/g%2Dm/mor/articles/ics.htm> and USCG District I ICS web site, at <http://www.uscg.mil/d1/units/msobos/mirt1.htm>
  - RRT I Incident Command System in Oil Spill Response web site, at <http://www.uscg.mil/d1/staff/m/rri/ics.html>
  - On-scene Command and Control Prototype – OSC2, at <http://www.uscg.mil/hq/g%2Dm/mor/articles/osc2.htm>
  - NSFCC ICS web site – Spill Management Support Service, at <http://www.uscg.mil/hq/nsfcc/nsfweb/nsfcc/ops/ics.html>
- Computer-assisted Instruction for Incident Command System: Self-study Course, FEMA and the U.S. Fire Administration, National Fire Academy, in cooperation with the U.S. Army Reserve
- NOAA Electronic ICS Forms – ICSFORMS Solution, at <http://response.restoration.noaa.gov/oilands/ICS/intro.html>
- National Wildfire Coordinating Group ICS National Training Curriculum modules, at <http://www.neotecinc.com/neo/ics100.html>
- Setting Objectives in a Unified Command: The "Cost" of Leadership, 1997 International Oil Spill Conference (IOOSC) Proceedings
- Incident Command System, Fire Protection Publications, Oklahoma State University, 1983 <http://www.fireprograms.okstate.edu/fpp/Index.htm>
- Unified Command: The Mechanism for Ensuring a Comprehensive, Coordinated Response, 1995 IOOSC Proceedings
- ICS Unified Command Video, Texas General Land Office, Oil Spill Prevention & Response Division, 1995