

**Resource Ordering and Tracking: Getting It Right in Exercises and Incidents**

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Tracking resources and implementing an effective resource ordering process within the Incident Command Post can seemingly be as challenging as the task of recovering spilled oil during an incident. A key goal of resource ordering is to get the right resources to the right place at the right time in order to mount a successful response to the oil spill incident. Resource tracking is essential to accurately know how many of what resources have been ordered or have arrived and where they are. Therefore addressing the challenges associated with resource ordering is a key element to implementing an effective and efficient response. This paper examines the resource ordering and tracking process, highlights lessons learned from exercises and incidents, and translates those lessons learned into recommendations for the resource ordering process.

This examination looks at the cutoff point between resources ordered during the initial OSRO callout and a more managed resource ordering process, applying Type and Kind to resources, use of the Resource Request Message (ICS 213RR) form, and integration with computer-based spill management tools. Lessons learned from exercises will be described and recommendations are put forward that may assist all elements of a spill management team (SMT) to efficiently and effectively order resources during exercises or actual incidents. A cohesive SMT that implements an effective resource tracking and ordering process will help ensure resource ordering does not slow the response, and the right resources get to the right place at the right time.

**INTRODUCTION:**

Implementing an effective and efficient resource ordering process by the spill management team (SMT) within the incident command post is critical in an oil spill response. The key goal of resource ordering is to get the right resources to the right place at the right time in order to mount a successful response to the oil spill incident. Therefore addressing the challenges associated with resource ordering is a key element to implementing an effective and efficient response.

Through experience with incidents and exercises with many different clients, we have observed different approaches to the resource ordering and tracking process and noted common themes and issues. Based on this experience, this paper examines the resource ordering process, ways of implementing this processes, lessons learned, and translating those lessons learned into recommendations for the implementation of the resource ordering process. This examination primarily focuses on the tactical oil spill response resources that are ordered as part of a

response. However, the lessons learned and recommendations presented also pertain to those non-tactical resources that are also an essential element of a response effort.

## **DISCUSSION:**

### Reactive and Managed Phase

A key element to effective resource management is recognizing that there are two distinct phases in the resource ordering process. These are the Reactive, or emergency, Phase and the Managed Phase. For the activation of resources, there can be a struggle between the desire to use a formal resource ordering process, supported by appropriate paperwork, approvals and documentation versus the need to “get things done”, launching resources, and letting the documentation process and administrative side of things catch up later. Therefore different approaches are best suited for these different phases.

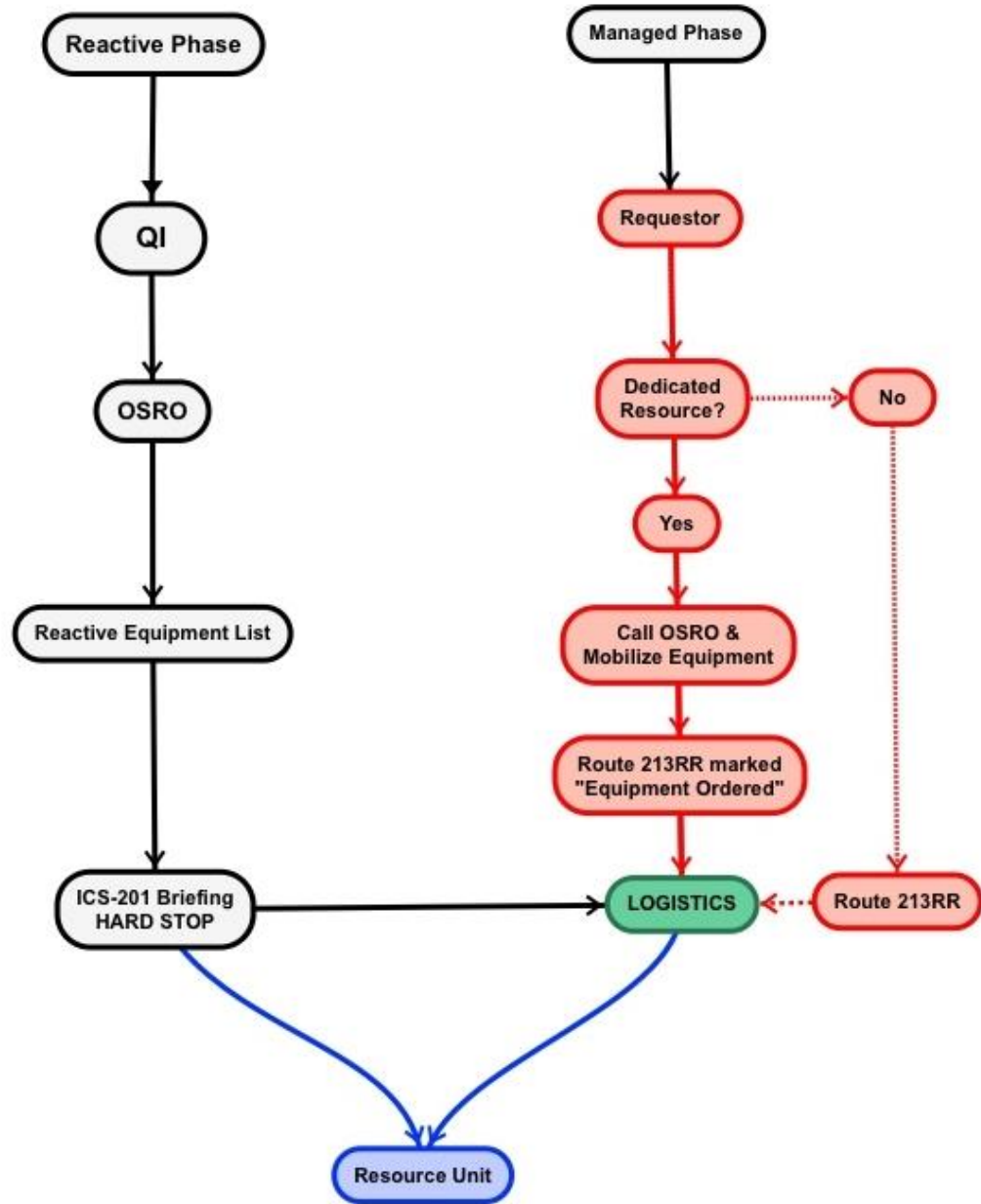
The initial response, especially one to a large incident, is often frenetic due to the emergency nature of a response and the urgency to get personnel and equipment engaged in containment, recovery and clean-up of the spilled oil. This is why it is termed the Reactive or emergency phase. During this Reactive Phase the resource requestor is typically the Qualified Individual (QI). Resources ordered during this phase are generally dedicated resources that are owned by the responsible party (RP), or their contracted Oil Spill Removal Organization (OSRO), and have no other business purpose than to respond to oil spills. Due to the staging of OSRO equipment around the country these are the most immediately available spill response resources.

These resources are activated usually during the notification call made by the QI, on behalf of the RP, to the OSRO and can represent a significant amount of equipment. This equipment is not ordered through the formal resource ordering process (to be described later) and is not expected to be. But rather these initial resources are ordered through a less formal process, typically using verbal communication, or via email, and captured on an Individual Log (ICS 214a) and/or on page 4 of the Incident Briefing (ICS 201). A follow up email to capture the verbal activation is useful to help document this initial activation. Ultimately these initial ordered resources are captured on the Resource Summary of the Incident Briefing (ICS 201).

It should be emphasized that accurate capturing of the initial resource information on the Incident Briefing (ICS 201) is critical. The Incident Briefing (ICS 201) is the means to provide the initial situational awareness picture for the incident. Without accurate situational awareness of resources on-scene and ordered, it is not possible to effectively manage a response. Therefore effective use of the Incident Briefing (ICS 201) to capture resource information will get the response off to a good start and aid in the smooth transition of the response from the Reactive to the Managed Phase. If this does not happen, the resource ordering and tracking will be in a prolonged state of catching up.

In general, the Reactive Phase should come to a hard stop at the time of the ICS 201 Briefing. From then on all resources must have a Resource Request Message (ICS 213RR) associated with them and the implementation of the formal resource ordering process should begin.

Resource Ordering Phase Diagram



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The Managed Phase of resource ordering begins after this hard stop of the Reactive Phase. Depending on circumstances, this may be the point when the QI is relieved by the SMT and a Unified Command (UC) assumes management of the spill response. Essential to executing this hard stop and transition is having a Logistics Section that has been stood up with the necessary staffing and capability to begin processing and tracking resource orders. Therefore it is incumbent upon the Logistics Section Chief to communicate with the UC when they are ready to commence the managed resource ordering process, implemented through the use of the Resource Request Message (ICS 213RR). This transition does not infer there is no longer a sense of urgency associated with the response. But rather it indicates the start of a transition to the orderly management of the response. This is essential, especially if standing up a response to a major incident. As part of this orderly transition, from this point on all resource orders must be initiated and based on the use of the Resource Request Message (ICS 213RR) and associated resource ordering process.

This is not to say that a resource request originator in the Operations Section must wait to mobilize a dedicated resource while a Resource Request Message (ICS 213RR) is being processed. On the contrary, flexibility is needed to allow these steps to take place concurrently. For example, if the Recovery Group Supervisor needs an additional Oil Spill Response Vessel (OSRV) that is owned by their OSRO, is known to be available and a response manager from the OSRO is present in the command post, then the Recovery Group Supervisor may directly request the OSRO manager to activate the OSRV. The Recovery Group Supervisor would then fill out the Resource Request Message (ICS 213RR), obtain the Operation Section Chief signature and clearly note in the comments section that the resource has already been ordered. This indicates to the Logistics Section that no procurement action is required on their part. The Recovery Group Supervisor then appropriately routes the Resource Request Message (ICS 213RR). At this point, the new resource is on the move and will be accounted for upon Logistics processing the requisition.

As the Managed Phase is implemented, the more formal approach to resource ordering is followed. These resource ordering steps are:

1. Originator (typically in Operations Section) initiates the Resource Request Message (ICS 213RR) with a description of the resource requested, quantity, when needed, where needed, and suggested vendor.
2. Resource Unit checks to see if resource is on hand and available for tasking.
3. If resource is not available, Resource Request Message (ICS 213RR) goes to Logistics for ordering.
4. Upon placement of order, Resource Request Message (ICS 213RR) is routed to Finance for payment.
5. A copy then goes back to the originator with the status of the resource order.
6. Another copy goes to the Resource Unit for tracking.
7. Resource Unit also provides a copy to the Documentation Unit.

## Resource Lexicon

A common area of failure in resource tracking is the absence of an agreed-upon resource lexicon. This is important in both the Reactive and Managed Phases. The value of an agreed upon and standard lexicon is it will provide for a more efficient and effective tracking of resources. One cannot track resources accurately if it has not been agreed upon or understood what these resources are to be called. This is not only important for tactical planning, but also facilitates providing the SMT with an accurate and concise resource summary picture.

For some assets this may not be such a problem. A vac-truck for instance may be considered a rather standard piece of equipment, with differences across vac-trucks having to do primarily with capacity. An example of the potential problems that could arise may be highlighted with the use of the term “workboat” to describe a resource. Depending on common practice, local custom, its intended use, etc., a “workboat” could encompass everything from a skiff with an outboard motor, a fishing vessel, a utility boat, an offshore crew boat, to a tug boat. Therefore the more precise and standardized the descriptors or lexicon used to identify resources, the more effective will be the resource tracking.

The International Maritime Organization (IMO) has been working on a resource lexicon to facilitate processing of international offers of assistance. This effort is still a work in progress. Due to its international basis and IMO support, this may become universally accepted.

A well tested lexicon is a key component of the Western Response Resource List (WRRL). Created in USCG District 13 in 1997, the WRRL is a database of the region’s spill response resources. This database is composed of information provided by the region’s OSROs and other entities with oil spill response resources in the Pacific Northwest. Response organizations in the Northwest have agreed on “kind and type” labels for response equipment based on capabilities, size, and use. Resource typing provides managers with information that facilitates selecting the best resource for the task. All equipment found on the WRRL is categorized by these designations. Specific “Resource” categories have been identified and, within these categories, equipment is further identified by “Kind”. Each “Kind” is then broken down into “Type” and refers to a resources capability. For example, a Type 1 resource provides a greater overall capability due to power, size, capacity, etc., than a Type 2 resource.

Agreeing on a common spill response resource lexicon should be accomplished as early as possible in the spill response. Making this part of the initial ICS 201 Briefing would not be too early. To delay establishing a standard lexicon for spill response resources will make it just that much more difficult to do so at a later time when these resources have been activated and are already in use.

The challenges associated with resource tracking from the Deepwater Horizon response highlight this aspect. For such a large scale response, over a broad area, with a wide range of resources activated, a more standardized resource lexicon was not implemented until later in the response. This was not until after many resources had been activated and were in use. This made it difficult to assemble information after the fact and hampered accurately depicting the resources mobilized as part of the response.

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Aside from establishing this standard resource lexicon, it is also critical that this lexicon be communicated to all persons involved in the ordering of resources, and that these persons are properly trained in the application of the lexicon terms appropriate to the resources.

## Use of the Resource Request Message (ICS 213 RR) Form

While the reliance on paper, multi-part forms, etc. may seem a bit archaic, there is still a place for the paper form approach. During the response to large incident, in particular the initial activation, a very large organization is being stood-up in very short period of time. This is naturally very difficult and stressful, particularly when persons are being pulled from their regular jobs, and across different offices, to quickly work together as a unified team. There is an unavoidable ramp up required, no matter how experienced and well trained the SMT members. Therefore the SMT needs a methodology that affords the most simple and accurate means of ordering and tracking resources. The use of the paper documentation really accomplishes this in our experience. In particular, the use of multi-part, multi-colored Resource Request Message (ICS 213RR) forms with pre-printed serial numbers greatly facilitates the processing of resource orders. The paper form creates a clear record of the resource order information. The multi-part, multi-colored forms help SMT members better understand where the particular resource order is in the process, as well as serving as their record of the resource order. The serial numbers help to more easily identify a specific order in order to track problems with an order and reconcile discrepancies. While the use of the Resource Request Message (ICS 213RR) is important for the reasons noted above, it must be emphasized that this system will only be effective if the form is used and completed properly. This includes accurately describing on the request what is needed, in what quantity, where it is to go (such as to a particular staging area, task force, etc), the vendor to provide the resource, and the appropriate approvals for the resource order. If all this information is included and the form routed to the appropriate sections within the SMT, this will keep the resource ordering process on track and running smoothly.

This emphasis on the value of using the Resource Request Message (ICS 213RR) forms is not intended to neglect value in software systems that support resource ordering and tracking. In our experience, though, it has not seemed practical to implement a 100% electronic system at the start of a response. But rather we have observed that, if incorporating a computer-based resource tracking system, it works best to implement both the form based and computer-based systems. This is particularly true at the start of an incident or exercise.

## Computer-Based Resource Tracking Systems

Naturally, when utilizing a computer-based system to track resources, it is important to ensure the electronic information accurately reflects the resources ordered, activated, and tasked. To accomplish this, the entering of resource order information in a software system needs to follow a consistent methodology and one that is clearly understood, particularly by those doing the data entry. One methodology is to enter all resource order information into the computer-based system in the Logistics Section, after the resource order has been processed and the order sourced. This approach ensures no resource is entered in the computer-based system until the

resource order has been placed, with all final and correct information. A downside is the potential for data entry bottleneck with this single point of resource order data entry.

Alternatively, resource order data entry can begin earlier in the process, with the data entry mirroring what is entered on the Resource Request Message (ICS 213RR) as it goes through the resource ordering process. For example, this data entry could begin at the point of resource request, in Operations, or when the request has been forwarded to the Resource Unit in Planning. This approach distributes the data entry task across different points in the SMT. However it does run the risk of data entry getting ahead of the actual resource order. This may result in resources construed to be available when in fact they have not yet arrived, or may not have even been ordered. It is important to ensure the initial data entry of resources that are ordered is not automatically taken by others in the SMT to mean the resource is already on-hand and available for tasking.

If using a resource tracking software system, no matter which approach is taken or software tool is used, to ensure success the methodology needs to be clearly communicated to and closely followed by SMT members and data entry personnel. This methodology should be clearly documented as part of an organization's spill response plan and practiced during exercises. This will help ensure that, in the event of an actual incident, the SMT clearly understands and can successfully implement this aspect of resource ordering and tracking.

### Common Points of Failure

Common points of failure that we have observed create errors in the resource ordering process. These errors cause the resource tracking to be inaccurate and prevent the right resources from are getting to the right place at the right time.

- Lack of clear distinction between the Reactive Phase and Managed Phase. This causes inaccuracies in resource tracking and creates uncertainty regarding procedures to properly order resources, often resulting in unnecessary delays for equipment activation.
- Lack of standard lexicon to accurately describe and characterize the response resources. This results in uncertainty as to what resources are available, as well as what they are capable of doing. A consequence is lack of clear understanding of the resources engaged in the response and also inefficiencies in resource tasking.
- Incomplete Resource Request Message (ICS 213RR) information. The most common information gaps are missing delivery location or assignment and vendor information missing or incomplete. This creates extra work for the SMT, usually the Logistics Section, to track down this information, resulting delays in the placing of resource orders.
- Electronic resource tracking system data entry errors. Naturally the accuracy of the resource information in a software system will only be as accurate as the data input. Incorrectly entered information can run the gamut from duplicate orders, incorrect quantities, wrong ETAs, incorrect reporting/delivery location, incorrect item description, etc.

All these common points of failure can be overcome with proper training and practice.

### **RECOMMENDATIONS:**

- Ensure a hard stop is clearly identified and implemented between the Reactive and Managed Phase.
- Implement a resource lexicon early on. This could be accomplished during the Initial UC Meeting, or the ICS 201 Briefing. Also include a resource type lexicon in the response plan and train responders on this resources type lexicon.
- Use the Resource Request Message (ICS 213RR) multi-part, multi-color forms with serial numbers to provide a clear record of resource orders and as an effective means of tracking orders and resolving issues that may arise.
- If using a computer-based software system, use it supported by the Resource Request Message (ICS 213RR) forms. Additionally, ensure the methodology and approach to using the computer-based system is clearly understood and communicated.
- During the initial stages of resource ordering, carefully monitor the process to ensure it gets off to a smooth running start. Once persons are practiced and clearly understand their respective responsibilities in the resource ordering process, it will run that much smoother. The process should tend to remain running smoothly for the rest of the incident or exercise.

### **CONCLUSIONS:**

The resource tracking and ordering process is an important part of an exercise and an incident. This paper has described approaches and techniques that will assist the spill management team members in the resource ordering process. There are several common points of failure that occur in the resource ordering process. Through recognizing these common points of failure and taking into consideration the recommendations presented, an SMT will be more effective in properly tracking and ordering resources in exercises and incidents. Ultimately this will enhance the effectiveness and efficiency of the response, helping to ensure the right resources get to the right place and at the right time.