

TRAINING, TESTING, DEMONSTRATING COMPETENCY AND AUDITING A DRILL OR SPILL RESPONSE: DRILLTRAC

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ABSTRACT

The State of Washington developed DRILLTRAC, a training and competency program for managing oil spills and drills. DRILLTRAC represents an organizational commitment to stand-up a well qualified team at spills of all levels in order to fulfill a fundamental trust responsibility to protect public health, safety and the environment. The agency intends to hold itself to the same high standards that are expected from the regulated community. In addition, through the development of a well qualified team, the agency will be able to assist those unregulated spillers with providing an initial spill management team. DRILLTRAC consists of training and testing, required performance demonstrations at drills and spills, seeded staff to coach performance, response auditing and finally training and outreach to the community. The Program centers around a manual that is based on the 2000 Field Operations Guide (FOG), but is greatly enhanced with coaching tips, information flow diagrams and guidance on what actions need to be taken between the meetings. The manual is available on-line. During the first month it became available, the manual was downloaded over a thousand times. Some of the key training points under DRILLTRAC are:

- How do you ensure adequate staffing?
- How do you resolve conflict within unified command?
- How are critical decisions made by unified command documented?
- How does a trustee organization ensure that the interests of the state are consistently and adequately protected through the incident command system?
- How do you develop and measure an aggressive response?
- How do you ensure that the process being followed leads to the development of an aggressive, objective driven Incident Action Plan?
- How do you ensure consistent drill evaluation and drill design?

This paper will discuss the development of the program, the goals and some of the points of organizational resistance in the implementation. DRILLTRAC builds confidence, accountability and mutual trust in spill management. It is mission driven for the state of Washington.

DISCUSSION

Introduction

In Washington State, the Department of Ecology (Ecology) leads the state incident command system for spills of oil or hazardous substances to water. Ecology's mission is to protect the environment, public health and safety through a comprehensive spill prevention, preparedness, and response program (Spills Program). Charged with coordinating the response efforts of state agencies and local emergency responders, the Spills Program closely regulates deep draft vessels, facilities and pipelines that transfer oil across both inland and marine waters (plan holders). A drill program was first started in 1993, and today that program has evolved into a robust and effective preparedness tool with world-class standards. In 2004, DRILLTRAC was developed by Ecology as a training and competency program to manage and evaluate spills and drills. The program consists of an ICS manual, which is a center piece to the program. There are eight ICS training modules with presentation materials and written tests for each participant. There is a drill evaluation and a drill design module. In conjunction with the DRILLTRAC training program, an Incident Management Assist Team (IMAT) for Ecology was developed. DRILLTRAC is focused on training, testing, coaching and demonstrating the ability to manage spills of all sizes. Through this initiative, the agency intends to hold itself to the same high standards that are expected and met by our regulated community of plan holders.

Washington's drill program includes a variety of equipment deployment and tabletop drills, and once every three years, a demonstration of a worst case spill scenario. Ecology requires plan holders to use role playing to simulate the process and actions that would be taken to respond to spills of various sizes. Drills test the plans and familiarize all participants with the area policies and procedures. Over time, industry in Washington has mastered the ICS process in principal. In both spills and drills, the Washington plan holders can by and large mount an effective and efficient response using the National Interagency Incident Management System (NIIMS). In recent years we began to see industry's ICS capability match and in some cases surpass the capability of the more loosely organized response team in Ecology. An increasing number of companies in the regulated community began to rely on hired Incident Management Teams (IMT) to staff key positions

in the response organization. The use of an IMT ensures that individuals who are assigned key roles have advanced training on the ICS process, and as a bonus, have frequently worked with others on the same response team. We also began to see that some plan holders audited responses to ensure that the command post and field activities were staffed effectively.

We also began to think about the thousands of spill calls each year that are not caused by regulated companies, and therefore, we may not have had an opportunity to work with the spillers to approve contingency plans or evaluate capability in drills. At several recent spills where the Responsible Party (RP) was not a plan holder¹, our responders faced a lack of understanding of ICS and an inability by the RP to manage an incident of any size or complexity. The result was spills taking longer than necessary to clean up, environmental priorities not being effectively protected and critical coordination and communication issues with various agencies not being accomplished. We realized that through the development of a well qualified Ecology team, the agency could provide an initial spill management team that can get the response going and ensure that the environmental issues are well addressed.

Ecology lagged behind in both organization and training. The multiple duties of our Spills Program require that staff from each of the organizational sections (Prevention, Preparedness and Response) respond to spills in some manner. Spill management, field oversight, causal investigation, sampling, natural resource damage assessment and information management are all parts of our mission. We began to see that individual section or regional policy, rather than overall program policy, directed the responses. DRILLTRAC represents an organizational commitment to train, develop and stand-up a well qualified team for spills of all levels, and to ensure a consistent approach to spill response statewide. Ecology recognized the value of staffing a team by assigning permanent ICS roles and providing specific training to all staff. This direction helps to ensure that the policies and objectives of the state's program are put forward and that the agency's fundamental trustee responsibility is fulfilled.

Staff assigned to specific ICS positions on the team must train and demonstrate competency in those roles. Positions are assigned based on interest, personality and ability, and not on job position (rank) within the Agency. And finally, DRILLTRAC represents a commitment to offer our training to other natural resource agencies, tribes and local response organizations who could typically work within the ICS. Having all members of the management team trained to work within the ICS is vital to achieve success in protecting the environment. While sometimes by default training must occur during a spill response, we feel that is less than ideal and hope to get as many key players trained in ICS prior to any spill response in Washington.

Much of Ecology's success in our drill program has come from our staff coaching industry to success during drills. Years of ICS oil spill and drill experience has been captured in the DRILLTRAC manual. Initially the project design called for the core manual, complete with the forms, and a separate but related coaching manual. That became cumbersome if the manual were to be used as a job aid, and the coaching piece was ultimately written within the core manual. This job aid contains practical and relevant job descriptions, information flow diagrams and coaching tips for anyone who is staffing a spill management team. We also added a section called "Between the meetings." One of the key problems we have seen through our drill program is mastering the nuances of the ICS meeting process. Our manual and our curriculum stress that meetings are endpoints in the process, and that work occurs between these endpoints. Prior to each meeting, deliverables are required and our coaching section describes what each position must have prepared to be ready for the meetings.

The manual is posted on the Ecology website and can be downloaded in three formats, a word document, a linked PDF and a printable PDF. It is intended for non-commercial use.

<http://www.ecy.wa.gov/programs/spills/hottopics/ics/ics.htm>

In the first month alone, the manual was downloaded over a thousand times. The manual is consistent with the oil spill Field Operations Guide (2000 edition) and NIIMS, which is the version of ICS currently endorsed by the policy of the Northwest Area Contingency Plan. It has been in use for some time in the Northwest, and is now moving around the country. The manual coaches some aspects of spill management that are unique to the Pacific Northwest and to Washington. During 2005, the manual will be revised to incorporate the changes found in the new National Incident Management System (NIMS), adopted in 2004 by the Department of Homeland Security.

Training for an ICS position

While many of Ecology's staff participated in a variety of ICS trainings around the United States, DRILLTRAC was specifically created for our needs and to support our mission. As we developed the training, key lessons were identified from spills and drills that may have led to a less than optimal response. In the training courses, we stressed the importance of our trustee responsibility. We focused on the notion that each staff person could impact a response in a positive manner, regardless of which position they hold. Our training clearly emphasizes that the field activities are removing the oil; however, that command post positions are equally vital to an efficient and effective response. During our training we address the following questions, or at least give possible avenues to work the issue:

- How do you ensure adequate staffing?
- How do you resolve conflict within unified command?
- How are critical decisions made by unified command documented?
- How does a trustee organization ensure that the interests of the state are consistently and adequately protected through the incident command system?
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We view ourselves as part of a team when we come to the unified command, but our Agency cannot lose focus on the trust responsibility. The eight DRILLTRAC training modules contain unique content, though some common threads run through all of the trainings. The training modules include:

1) Two versions of ICS Overview (8 hours and 4 hours). During this training we focus on roles and responsibilities and an overview of the ICS Process. We introduce the concept of an aggressive response and managing by developing clear, measurable objectives;

2) Command and Command Staff (4 hours). This training includes a focus on State On Scene Coordinator (SOSC) responsibilities as well as on the importance of the Safety Officer, the Information Officer and the Liaison Officer. Ecology places a great deal of emphasis on the Liaison Officer. In this module we train that while it is unified command that develops the incident objectives, ensuring that these objectives are met is everyone's responsibility. A good example is an objective is to ensure the safety of citizens and response personnel;

3) Operations and Planning (4 hours). In addition to going over the roles and responsibilities of all of the staff in the Operations

and Planning Section, this is the place where the meeting process is discussed in great detail;

4) Environmental Unit (4 hours). Aside from Unified Command, the Environmental Unit is where Ecology has many mission related roles and responsibilities. Ecology's work in this unit provides the greatest protection of our trust resources. It is the policy of the Northwest Area Contingency Plan that the Environmental Unit Leader will initially be a state or federal trustee. Generally at spills or drills, Ecology fills this position. The management skills of the Environmental Unit Leader are critical to manage this portion of the response. We stress in the training that the coordination of all the Resource Trust agencies has to happen, including the tribes and any other group that has a resource at risk;

5) Resources Unit and Documentation Unit (4 hours). This is a key training for the program. Resource tracking is critical to ensuring an aggressive response. The staff in the command post will not be able to determine the adequacy of response if resource tracking is not effective. In the Northwest, we have not settled on a process to track resources at this time, though we have used everything from T-Cards, computer systems, excel spreadsheets and post-it-notes;

6) Situation Unit (4 hours). We train that this is the unit where the command post staff should be able to thoroughly "see" what is happening out in the field. To that end, the Situation Unit must develop an aggressive field observer program, use all the staff available in the field, get reports in advance of key meetings, and develop a process to display the information in a logical manner;

7) Logistics and Finance (4 hours). This module covers the development of an ordering process, including who has signature authority, how many copies of each order you need and how to keep in touch with the Staging Area Manger, Resource Unit Leader and how Finance and Logistics will work together.

How many of these eight modules an individual must complete depends on the number of roles they are assigned to on the Incident Management Assist Team (IMAT). For instance, the SOSC enrolls in all of the modules, while someone assigned to Salvage would need only to take the 8 hour Overview and the Operations and Planning modules. This training is not intended to be a complete curriculum for each position, but only the beginning. Each module has a test associated with it and staff must pass the test to be listed on the IMAT Roster.

Developing the IMAT Roster

We initially envisioned that we may need a team of people called out to assist in spills from a non-regulated RP, or to supplement the initial staffing needs in spills from regulated plan holders, or perhaps to wholly staff an orphan spill when the spiller is not known and the federal and state governments must take control. Ecology's IMAT will be called for spills that require the development of an Incident Action Plan, and therefore the launching of the ICS process. The Ecology protocol has the SOSC calling out the IMAT through one of the Spills Program Section Managers. The Manager will consider things like workload, spill location and staffing need when calling out the individual team members. During the last half of 2004, we had several experiences with how well this concept works. And we learned some lessons around how deeply to staff various IMAT positions.

The first IMAT roster was developed with staff filling as few as one and no more than four positions. That proved to be too many positions and we later decided that no more than three positions could be assigned to one individual. We realized that we needed to focus on roles we were likely to hold and positions that best enabled us to fulfill our trustee responsibilities. All staff were given an opportunity to select areas of interest in the ICS structure; however, for some with little or no experience in big oil spills or drills, this choice was daunting. Assignments were made,

and many of the less experienced staff felt little connection with their positions on the team until we moved into the next phase of DRILLTRAC and began to demonstrate competency.

Demonstrating competency in the IMAT roles

All staff must demonstrate their roles and have opportunities for coaching from the DRILLTRAC trainers. Drills present good opportunities for this. Industry in Washington has been receptive to our requests to have Ecology role play during plan holder drills. Working side-by-side with the same pressures to perform have strengthened our relationships with plan holders. Through this process, we were able to give some, but not all, staff a role playing opportunity. To broaden the program, Ecology designed and held an agency training where all of our staff participated in an agency-only exercise. This drill, which occurred in September 2004, gave many of our staff an opportunity to get together in a neutral environment where a learning culture was emphasized and no evaluations were being written. All staff had the opportunity to receive coaching. The drill was very slowly paced to allow for deliberate and thoughtful interactions. The drill was a tremendous success and our staff came back from the drill with strong desires to develop additional tools and training they need to do their job. We learned that there was much work ahead of us to develop the procedures we will use to order resources, track resources, display situation and set up a command post.

Policy Outcomes

Some overall staffing policies were developed from the knowledge gained during the first round of training and the internal drill. We determined that all program staff can be used as field observers because this is a critical position for Ecology to ensure that the response is aggressive and that the objectives are being met. It is fundamental to our environmental mission. In addition, all program staff can fill documentation roles. This is vital for our historical record and to ensure that key decisions made are documented. Recovery and Protection Branch Staff can be filled by our Preparedness Section staff. To ensure that the response is aggressive, staff will monitor deployment task forces, shoreline protection strategies and shoreline cleanup workers and plans. This is very closely related to the contingency plan and response contractor approval work that the Preparedness Section staff performs on a day to day basis. All Ecology staff is trained to measure an aggressive response. This is somewhat of an elusive concept, but we ask "are there enough skimmers, storage, boom and people," and "are they configured for the best possible outcome?" It is our job to ensure an effective, efficient and timely response, the more aggressive the initial response the better chance of containing, protecting and cleaning-up the environment. In addition, all of our staff are being trained to document the response. In recent responses Ecology has not had complete documentation. Decisions made by the UC were not documented and then when they were not carried out, we had little recourse. Staff are being trained to use the ICS 231-Meeting Summary, or the ICS 214-A Individual Log, to keep track of key potentially contentious decisions. We have seen an industry model that provides a documentation person for each section. This person is responsible for the ICS 214-the Unit Log, and also to prompt the Section to turn in completed forms. In complex responses this may be the model Ecology follows. Regardless, Ecology will always support the use of a documentation staff person in the unified command.

Ensuring appropriate staffing

Another policy developed as a result of DRILLTRAC is the use of an audit team. The team is called the Field Evaluation and Assist Team (FEAT). This concept of a team sent to a response to give an

independent evaluation of the staffing came from our observations of Industry. Several of the big oil companies use an audit function to verify that the team members with the best skills for the particular spill are on site, as well as determining whether adequate numbers of staff are on site. The thought is that during the initial hours of a response, the unified command is so busy with all of the other tasks, that staffing can get overlooked. So this independent function may help to ensure appropriate staffing and may empower the SOSC to push for more staff if needed. The early hours are vital to accomplish the objectives, keep staff in the command post informed, track resources, display the situation, plan the response and develop the tactics, fill positions in the command post positions over at least two shifts, and document the response.

Putting it all to the test

In October 2004, one month after the agency-only drill, the orphan spill that we envisioned happened in Washington. A spill of unknown volume from an unknown source near Dalco Passage in Puget Sound was reported in the middle of the night. A joint federal-state response management system was geared up. Fog conditions hampered response efforts throughout the incident. While this spill volume was no where close to a potential worst case spill volume given the transportation sources in Washington's waterways, Governor Gary Locke said "As we've seen over the past week, there's no such thing as a 'small' oil spill in Puget Sound. Whether it's 1,000 gallons or 100,000 gallons, the unique currents and weather conditions of Puget Sound make it difficult to recover." The Coast Guard and the State of Washington put both of their IMATs up and managed the response together. The planning and operations functions were run by Ecology and Coast Guard section chiefs and deputies. The Liaison and the Joint Information Center immediately took numerous phone inquiries, pulled together elected official briefings, VIP media events, press inquiries and community meetings, and a local volunteer plan is now already underway with the community. We put a contract in place, and had trained up over 80 WCC crew members to assist in beach cleanup by the end of the second day. The Washington Department of Fish & Wildlife, National Oceanic and Atmospheric Administration, U. S. Navy, U.S. Fish and Wildlife, U. S. Coast Guard Auxiliary, and other state and local agencies also participated in the field or the command post.

Many of our assumptions about the IMAT roles and responsibility proved to be true. Our teams of field observers worked by boat and land, and with over flights when the foggy conditions allowed that. The flow of information between the field and the command post was smooth and the field situation was monitored continuously. Alternative response strategies were developed based on these field observations, for example, a hot shot team of beach cleaners was directed to follow the SCAT teams in order to use passive measures to prevent or minimize re-oiling of beaches.

The Dalco Passage spill taxed Ecology's ability to fully staff all ICS positions over an extended period of time and still keep our daily work intact. A lesson that Ecology must now consider is whether to supplement our team with a hired team in the future.

CONCLUSION

DRILLTRAC has tremendously strengthened Ecology's spill response program. We are more of a cohesive team, increasingly more consistent in our approach to drills and spills. Our team members understand the need to have staff both in the field and in the command post to ensure that the environment is being protected. Mutual respect has increased and so has the value placed on our differences. We found superior, enthusiastic performers in unexpected places. We worked together as a team through the training, our initial Ecology staff drill and the Dalco Passage spill in October. Knowledge builds confidence, and the manual and the training have given most of our staff the confidence to reach out and help industry during drills. We have ensured that all of our staff understands that our perspective and experiences bring a wealth of knowledge to the table, and as we partner with Industry and the other agencies our contributions to the response community have grown, as has our trust of each other. More work needs to be accomplished to make the IMAT a fully self sustained effort, but just as industry has stepped up to the mark in Washington, Ecology will continue to strive to meet that same high standard.

ACKNOWLEDGEMENT

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REFERENCES

Oil Spill Field Operations Guide 2000 can be found at the link below

<http://www.uscg.mil/hq/g-m/nmc/response/fog.pdf>

DRILLTRAC Manual can be found at the link below

<http://www.ecy.wa.gov/programs/spills/hottopics/ics/ics.htm>

ENDNOTES

- ¹ Washington State plan holders include all tank vessels as well as all facilities located on or near navigable water that transfer petroleum product across a dock or through a pipeline.