

Section XI

TRAINING

Session 4-D

Chairman: Adm. Peter Cressy
Massachusetts Maritime Academy

Vice Chairman: Cdr. Dennis Sande
U.S. Coast Guard

A COORDINATED STATE/FEDERAL VOLUNTEER TRAINING PROGRAM¹

Lt. Cdr. Thomas J. Chuba
Thirteenth Coast Guard District
Jackson Federal Building
915 Second Avenue
Seattle, Washington 98174

Elizabeth Dimmick
Oregon Department of Environmental Quality
811 SW 6th Avenue
Portland, Oregon 97204

ABSTRACT: While the sinking of the *Tenyo Maru* and resultant oil spill off Washington's Olympic Peninsula in July 1991 was tragic, it fostered the birth of a cooperative effort by federal and state agencies to train volunteer responders prior to another oil spill. This effort, under the auspices of an Oregon nonprofit group known as SOLV (Stop Oregon Littering and Vandalism), is known as the SOS (SOLV Oil Spill) Steering committee. The purpose of the group is to train volunteer responders to aid federal, state, and local agencies in future oil spill cleanup activities. For the first time in the nation, governmental agencies have joined with corporations and environmental organizations in coordinating educational programs involving citizens in oil spill remediation efforts before the advent of a major spill that could affect coastal areas or inland waterways.

Free classes meeting federal and state hazardous waste training criteria are offered quarterly to citizens interested in either volunteer wildlife rehabilitation or beach cleanup. The four-hour course was developed by the U.S. Coast Guard, Oregon State Department of Environmental Quality, and Oregon OSHA. Topics covered include agency responsibilities, site safety plans, general safety, toxicology, material safety data sheets, personal protective equipment, decontamination, heat stress, helicopter safety, and wildlife safety.

In addition to course materials, participants receive a certificate and identification card verifying their training. A 1-800 number, computer data base, and newsletter are used to maintain contact with graduates. So far more than 600 volunteers have been trained and are ready to assist should the need arise.

Our world is full of volunteers ranging from people helping large organizations such as the Red Cross to the parents who help out in their child's classroom. People like to help, especially when the need is great and the cause strikes a chord at home. Oil spills generate many of the same strong emotions and concerns—how can I, the average citizen, help clean up the local environment and give aid to the affected wildlife?

1. Opinions or assertions expressed in this paper are solely those of the authors and do not necessarily represent the views of the U.S. government, U.S. Coast Guard, or Oregon Department of Environmental Quality.

Early spills like the tankers *Torrey Canyon* in Europe and the *Exxon Valdez* in Alaska brought hundreds of volunteers to the beaches and surrounding areas. These massive spills generated tremendous interest among the public, resulting in people traveling long distances to assist in cleanup efforts and rescue of wildlife. Volunteers were welcomed and in many instances worked alongside paid cleanup workers. No one worried about the consequences of exposure to the constituents of the oil, cleanup and rescue efforts were all that mattered.

Around the time of the *Exxon Valdez*, the Occupational Safety and Health Administration (OSHA) adopted 29 CFR 1910.120, otherwise known as the hazardous waste operations and emergency response (HAZWOPER) regulations. These regulations set forth training requirements that must be met for people responding to spills and hazardous waste site cleanup operations. The training helps protect the workers by giving them information and experience regarding hazard awareness and how to protect themselves. The type and extent of the training depends on the task assigned.

Once spilled, oil is considered a hazardous waste, therefore the regulations apply. Not long after the regulations were adopted, an oil spill involving the tanker *American Trader* occurred off Long Beach, California. During the response, many volunteers appeared to assist with beach cleanup efforts and to provide rescue assistance for the affected birds and wildlife. As volunteers, these people did not fall under the jurisdiction of OSHA and therefore had no HAZWOPER training.

In July of 1991, the *MV Tenyo Maru* and the *MV Tuo Hai* collided off of Cape Flattery, Washington. The *Tenyo Maru* sank in approximately 500 feet of water releasing 100,000 gallons of oil. While the cleanup efforts and the wildlife rescue were similar to previous oil spills, the actions taken by local, state, and federal agencies in Oregon as the spill wound down were unique.

As cleanup efforts progressed, some of the oil made its way south towards the northwest Oregon coast and impacted the beaches. At just that time a group of volunteers known as Stop Oregon Litter and Vandalism (SOLV) was planning its fall beach cleanup campaign. Although the Oregon beaches received minor impact from the oil, the potential problems associated with oiled debris caused difficulty for the SOLV planners. Jack McGowan, SOLV's executive director, contacted the primary agencies involved in spill response to gather information regarding beach cleanup. Jack's concerns were for the safety and health of his volunteers should anyone encounter oily residues or debris as they worked. A meeting was scheduled and a committee of private, state, and federal agencies was born.

Initial program development

The first meeting would prove to be the beginning of a major project that is ongoing and has since taken on a life of its own. The group, now known as the SOLV oil spill (SOS) steering committee, includes representatives of the following agencies: Stop Oregon Littering and Vandalism; U.S. Coast Guard, Marine Safety Office, Portland; Oregon Department of Environmental Quality (DEQ); Oregon Department of Fish and Wildlife (ODFW); Oregon Occupational Safety and Health Administration (OROSHA); and U.S. Fish and Wildlife Service (USFWS).

The committee determined, at the initial meeting, that untrained volunteers involved in the SOLV beach cleanup would not be allowed to clean up any areas affected by the oil. The OROSHA determined volunteers involved in any aspect of a cleanup involving spilled oil would need HAZWOPER training. The SOS committee decided to offer free training to interested citizens to qualify them to clean up tar balls on the day of the SOLV beach cleanup. Therefore, only designated people would be permitted to clean up oiled materials, other volunteers would be limited to cleaning up litter.

A training curriculum based upon federal OSHA's low-risk compliance policy letter definition was developed by OROSHA and the DEQ. For volunteers involved in low-risk activities associated with oil spill cleanup, a minimum of 2.5 hours of classroom training and 1.5 hours of supervised on-site training would be required.

Based on the HAZWOPER regulations, the classroom curriculum topics included site safety plan, OSHA standards, hazard communication, video and discussion of material safety data sheets, beach safety, hypothermia and heat stress, personal protective equipment, decontamination, and directions not to handle wildlife or other hazardous materials found on the beach (for example, drums or medical waste).

The DEQ and OROSHA recruited and trained volunteer instructors from within their agencies. The DEQ and SOLV set a schedule and located training sites throughout western Oregon: in Astoria, Newport, Coos Bay, Eugene, Salem, and Portland. Local print and electronic media provided public service announcements and news coverage.

The result was that by mid-September 1991 over 500 Oregonians had participated in hazard awareness safety training. As it turned out, the oil spill from the *Tenyo Maru* was no longer impacting the beach and specially trained oil cleanup volunteers were unnecessary; but realizing they had a unique and exciting program on their hands, the SOS committee decided to stay together and continue their efforts. A long-term volunteer training and management program was needed.

As the SOS program developed, the regional response team (RRT) was also struggling with the issue of using volunteers. The RRT assigned the Thirteenth Coast Guard District Safety and Environmental Health officer the task of working with SOS on this issues in Oregon and trying to establish a similar program in Washington. At his suggestion, SOS formed a training subcommittee to evaluate their course and its delivery.

This evaluation resulted in the adoption of the American Petroleum Institute's (API) HAZWOPER training outline. The subcommittee also decided to extend the classroom training from 2.5 hours to 4 hours to permit hands-on practice, more demonstrations, and more in-depth discussions. The subcommittee developed a list of performance objectives each volunteer should meet at the end of the training session.

Present training program

The course utilizes the following set of performance objectives to guide the volunteers through the session and give them a goal. Volunteers are expected to know and understand: spill site organization and agency roles, material safety data sheet terminology, the potential hazards of crude and refined oil, how protective equipment is selected and donned, decontamination and personal hygiene policies, special site environmental hazards, general construction/industrial safety procedures, and special wildlife handling policies. Because volunteers are expected to work only in areas that are classified as low risk, they are not trained in the use of respirators. Volunteers are not expected to enter confined spaces, operate heavy equipment, or work on the water in a boat—so these topics are not covered.

Spill-site organization and agency roles are taught first by providing

the volunteers with an overview of oil spill history in Oregon. A DEQ representative briefs the class on various accidents, the response effort, the agencies involved, and the effect of the spill. Attendees are then led through a typical site safety and health plan by the Coast Guard safety officer. This lesson explains which agencies, organizations, and contractors are on site and their roles. The class is shown where the volunteers fit into the organization.

Using API's outline as a guide, the following topics are also discussed with the class: HAZWOPER requirements; the importance of safety; how the site is characterized; the meaning of "low risk" environment; air monitoring techniques; the alcohol, drug, and firearms policy; emergency procedures for fires, injuries, and the like; the buddy system; first aid awareness; sanitary facilities; work rules; and site perimeter control. Attendees are given many opportunities to ask questions, and to see and handle the air-sampling equipment. The volunteers receive a great deal of comfort from learning how their health on site is being monitored and protected.

A representative of OROSHA then leads the class in a lesson covering the potential hazards of crude and refined oil. The class learns about potential inhalation, absorption, and ingestion hazards and routes of entry. OROSHA discusses the possible effects of exposure to oil, including warning properties and symptoms. The class also receives a briefing on material safety data sheets (MSDS); the terms they will encounter are defined and examples are given. The students also learn the differences between crude, refined, weathered, and non-weathered oil. A brief discussion of the potential hazards volunteers could encounter from chemicals and biological agents used in the oil spill cleanup rounds out this segment. Copies of typical oil MSDS forms are provided so the volunteers can make notes and take it home.

The class then receives its most hands-on lesson—personal protective equipment (PPE) and decontamination. During this session, attendees learn how PPE is selected by the site safety officer, how to don it, tape all the seams, decontaminate it, and remove it. The class also receives a lecture on the signs and symptoms of heat stress. The DEQ has purchased over 500 sets of rain gear for volunteers to use on site. People are selected from the class to assist one another in putting on the rain gear and taping up the seams while the instructors provide guidance. As the people are dressed, they begin to experience the stress that wearing PPE places on the body. When the students see their colleagues undergo this, they begin to understand the importance of following the work/rest regimen and other safety policies. After the person has worn the PPE for about 15 minutes, other members of the class perform decontamination using equipment they would find on the site. The decontamination demonstration is accompanied by a discussion of the importance of good personal hygiene on site and how complicated the simple act of breaking for a drink of water becomes. The lesson includes with a discussion of hot, warm, and cold zones. Emergency situations involving PPE are also discussed. Finally, the DEQ provides each student with a list of clothing and equipment that they recommend each person bring to the spill site.

During the final segment of the class, the instructors from the Coast Guard, OROSHA, and the DEQ combine to discuss the general site environmental hazards, first aid, and construction-site safety procedures. The volunteers are told how to report accidents, request first aid should they need it, and where they can find first aid kits. Explanations of the signs and symptoms of thermal stress are given. The instructors also discuss noise hazards, insects, and plants that can be encountered on the site. Because many of the volunteers have not worked in an industrial/construction setting before, the following topics are presented: how to prevent slips, trips, and falls; safe lifting procedures; how to use hand tools; electrical and water hazards; and the use of fire extinguishers. The volunteers are then instructed that no one is to handle wildlife unless they have attended specific training for that job. This will prevent untrained, yet well-intentioned, people from getting hurt. Finally, volunteers are made aware of the impact that cleanup efforts can have on the environment.

Wildlife handling

As an adjunct to the HAZWOPER course, ODFW developed a curriculum for training volunteer wildlife rehabilitators. The program offers three levels of training.

Tier One training teaches volunteer rehabilitators the fundamentals

of safety and restraint of wild waterfowl and seabirds. Raptors are covered very briefly. It also teaches volunteers how to perform an initial assessment of physical condition and gavage (tube feeding) techniques. The wildlife rescue aspect of Tier One training, taught by experienced rehabilitators, takes three hours in addition to the four hours of SOS hazard awareness training.

Tier Two training is offered to state-licensed wildlife rehabilitators who are willing to be available in the event of an oil spill. This training includes four hours of SOS hazard awareness training and a workshop on special problems relating to and the cleaning of oiled birds. This aspect of Tier Two training takes eight hours and is taught by an outside contractor with experience and expertise in oil spills, and who also has very good communications skills.

Selected graduates of the Tier Two training are offered Tier Three training: approximately four hours of volunteer management training which includes communications skills, the fundamentals of good volunteer management, and some information on crisis intervention. This program is taught by the ODFW volunteer coordinators.

Course delivery

With both the hazard awareness and wildlife rehabilitator curriculums in place, the training subcommittee then developed methods to deliver both to the public. OROSHA volunteers used their training facilities to make over 200 picture and graphics slides for the course. Heads of the various agencies involved with the program sent videotaped messages supporting the program, which are shown at the beginning of every class. The students are given note-taking sheets and handouts to take home with them.

A field test of the new course was held at Portland State University in March of 1992. The SOS hazard awareness class was presented on a Friday evening and Tier Two training was held on Saturday. Feedback from the attendees, which included some who had been at the fall 1991 class, was positive. The logical progression from hazard potential through protective equipment and decontamination to wildlife rescue and handling was just what the volunteers wanted. Another evaluation was done by the subcommittee to fine tune the course. The same progression was offered again in April of 1992.

Using Oregon's Education Network satellite system, the SOS hazard awareness course was offered to licensed wildlife rehabilitators in a studio audience at Oregon State University and beamed to sites in Eugene, Astoria, and Coos Bay. Interaction with the instructors in the studio was accomplished by positioning facilitators at the remote sites and having two-way audio communications throughout the evening to promote questions. Once again the hazard awareness class was presented on a Friday evening and the live, hands-on Tier Two wildlife rehabilitator training was conducted at the remote sites on Saturday.

Having achieved success with the first course, SOS offered refresher classes to all those who had attended the previous year's training sessions. A two-hour hazard awareness course is combined with two hours of Tier One training. These courses were offered at all the 1991 training sites on various evenings during the summer of 1992.

A training schedule has been developed for 1993. The four-hour hazard awareness course will be offered in February and June; a two-hour refresher will be offered in May and September. Wildlife rehabilitator training for Tier One and Tier Two will also be offered periodically throughout the year.

Volunteer management program

DEQ developed a computer data base to track all trained volunteers by name, areas of expertise, training received, and date of training. Each attendee was given both a certificate and a wallet card. The wallet card is color coded to indicate the type and date of training. This will enable volunteer coordinators at a spill site to determine easily whose training is up to date and who will need on-site refresher training. Other features of the card include the 1-800 number for spill mobilization information and an agreement with the state police to allow only volunteers with a card through to a spill site.

The logistics of housing and feeding volunteers is a major concern. An MOU (memorandum of understanding) with the Oregon National Guard is in draft form to provide housing and food either at their permanent training facility on the coast, Camp Rilea, or with mobile tents and kitchens.

Volunteers are mobilized after a joint decision by DEQ and the Coast Guard; SOLV is notified to contact the media which then instructs trained volunteers to call the 1-800 number for further instructions. Volunteers who have not been trained will be advised to stay away from the site. Announcements will be made about locations where training can be obtained. Untrained volunteers who arrive on the site will either be utilized in jobs which require no HAZWOPER training or be directed to the location where they can receive training.

Future plans

The DEQ and the Coast Guard's MSO Portland are working with MSO Puget Sound and Washington Department of Ecology (WADOE) to incorporate volunteer management procedures into the area/regional oil spill response contingency plans. Both the Coast Guard and the DEQ have agreed that on-site management of volunteers will be handled by the DEQ for beach work and ODFW for wildlife work. To accomplish this, both DEQ and ODFW personnel who have been identified as potential volunteer supervisors will be provided more extensive HAZWOPER training as well as some management training.

The Coast Guard safety officer is meeting with WADOE, Washington Wildlife Department (WAWD) and Washington Industrial Safety and Health Administration (WISHA) to develop similar training programs throughout Washington.

The DEQ and OROSHA are developing plans to provide liability coverage for volunteers once they are activated and are working on a spill—perhaps with limited worker's compensation coverage paid for by the state agency monitoring and supervising the volunteer.

A small mobilization exercise to test the logistics and the 1-800 number is scheduled for May 1993.

The SOS program has been recognized in the U.S. House of Representatives by Congressman Ron Wyden from Oregon. The committee has also received inquiries from California, Florida, and the Canadian Coast Guard.

The success of the program is proof that private, state, and federal agencies can cooperate. By focusing on a total quality management ideal of "doing the right thing," SOS members have put aside territorial concerns and developed a program that can benefit both the citizen volunteer and the government.

