

A PRACTICAL OIL SPILL CONTROL TRAINING SCHOOL

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ABSTRACT

This paper describes a practical oil spill control training course to be offered by Texas Engineering Extension Service of Texas A&M University, beginning in March, 1975. Objectives of the training course are listed, and a tentative schedule for a one-week course is presented. The course will offer basic "hands-on" training for first-line supervisors and above. The course will stress practical rather than theoretical aspects of spill control, and it will be updated and adjusted regularly to provide experience with modern equipment and techniques on a wide variety of spill situations.

The task of eliminating oil spills from the environment requires a two-pronged approach: prevention and control. Both are important, but each requires different knowledge, skills, and equipment. For this reason, each subject is substantially independent of the other, and training personnel either to prevent or control oil spills is best accomplished in separate schools. This paper will address only the control aspect of training.

Oil spill control training courses have been conducted for several years by various companies and governmental agencies. Schools sponsored by an oil-producing or consuming company are often not widely available to all people who need training, and the costs of such a course often discourage all but the largest companies. Oil spill control schools offered by vendors sometimes suffer from a lack of breadth in discussion of equipment, services, and techniques. Spill control courses offered by governmental agencies generally stress documentation of spill effects and enforcement of regulations and discuss only the rudiments of modern control equipment and techniques.

While each of these different oil spill control courses fulfills the need for which it was designed, none meets the broad needs of the industry in terms of course content and capacity to handle many students. Therefore, the American Petroleum Institute and its member companies felt that a course was needed which has the following basic characteristics.

1. Practical, "hands-on" training using a variety of the most modern equipment and techniques.
2. Orientation toward companies which produce, use, process, transport, and store oil, since they, in the final analysis, are responsible for the control of an oil spill.
3. Flexibility to adjust to the changing demands of attendees and evolving technology.
4. Provide a broad range of experience in control of spills in different environments.

API felt that such a course was not currently available, so a task force consisting of representatives of several member companies was formed to develop a plan for such a course. The task force felt that a desirable oil spill control course should be able to train an attendee to:

1. recommend oil spill control equipment such as booms, skimmers, sorbents, and tools needed to recover spilled oil in his own area of responsibility

2. modify, edit, and publish a contingency plan covering training, equipment, supplies, and methods to mount an effective cleanup operation
3. organize a team of supervisors to execute the contingency plan so that the cleanup operation will be effective
4. organize a response team, identify duties of each team member, and train spill supervisors so they will accomplish their own cleanup objectives efficiently with a minimum of environmental damage.
5. determine and prepare the headquarters site for any spill cleanup effort that might be needed
6. preplan to have under standby contract most of the support services from commercial firms which may be needed
7. preplan an effective communication system including radio, telephone, and public address systems
8. review required relationships and reporting procedures with the multitude of governmental agencies that have legal jurisdiction over an oil spill situation
9. preplan methods of coordinating relations with the public and the media.

The course should emphasize practical rather than theoretical aspects of oil spill control. The course content should be oriented toward first-line supervisory personnel and above. The school should initially be designed to accommodate spill situations which might occur in refining, drilling and production, terminal, transportation, and marketing operations. Enrollment should be open to anyone with an interest in the practical aspects of the control of oil spills. It was anticipated that, in addition to oil companies, various representatives of oil spill cooperatives, government agencies, cleanup services, and other users of petroleum products would wish to attend.

From past training experience, the API task force felt that the class should be limited to about 25 students who would be divided into teams of 5 students each for direct attention from instructors. The task force also decided to limit the length of the course to 4-1/2 days.

The task force sent out requests for proposals to firms known to have the capability to prepare a plan for an oil spill control course, a training manual for the course, and the facilities available to conduct the course. The requests were for an organizational description of the course and for tuition estimates that would enable the school to be entirely self-supporting. Once the plan for the school was prepared, it was felt that the course should be financially independent, and it would be the sole responsibility of the party conducting the school to keep it timely and functioning properly. The task force would be available for advice as the school matured.

Eight proposals were received, and interviews were conducted with each party who submitted a proposal. Proposals were received from oil spill cooperatives, consultants, oil spill cleanup contractors, equipment manufacturers, and universities. The proposal submitted by the Texas A&M Research Foundation was selected as most suitable for the needs of the task force.

Texas A&M quickly organized a team under the direction of Dr. John Ball to carefully plan and implement an oil spill control

course. The Texas A&M team worked closely with the task force to develop a plan. The team interviewed experts in all fields of oil spill control, attended oil spill control courses conducted by industry and government, acquired audio-visual aids and other classroom training aids, acquired full-scale oil spill control equipment for practice exercises, and prepared reference manuals for both students and potential instructors. To assist in planning for attendance, a letter from Frank Ikard, President of API, was sent to chief executives of API member companies requesting an estimate of the number of employees which might attend such a school. Company response indicated that there was sufficient interest in the school to permit firm plans to be made for presentations of the course.

In January 1975, a trial presentation of the course was made to the task force for final comments and suggestions. The Appendix gives the tentative schedule for the course. Final revisions were made, and the Texas A&M team prepared brochures describing the course. The first course session will be held in March 1975. About 20 courses will be offered per year, and the estimated tuition is \$400 per student for the one-week course. The school will be located on Pelican Island in Galveston Bay, an ideal site for the field exercises.

The Texas Engineering Extension Service of Texas A&M University will offer the course on a continuing basis as long as there is demand. Initially, a single program will cover aspects of different types of spills, but the curriculum will be adjusted as more specialized courses on various spill situations are needed. More than one school may be available later to meet the need for specialized instruction.

The members of the task force feel that this course will offer the most up-to-date, meaningful, and practical training available to industry today. The task force will continue to act in an advisory capacity to assure that the course will continue to meet the demands and expectations of all who are interested in the control of oil spills.

APPENDIX

Tentative course outline for the Texas A&M oil spill control course

Sunday

6:00- 8:00 Registration

Monday

9:00-10:30 Determining spill recovery priorities

10:45-11:15 Preventing oil spills
11:15-12:00 Four examples of oil spill situations
1:00- 1:45 Reporting oil spills: legal obligations for reporting spills, civil and criminal penalties, and introduction to enforcement entities
1:45- 2:30 Introduction to movement, cleanup, and containment of oil
2:45- 5:00 Containing spilled oil

Tuesday

8:00- 9:00 Some physical and chemical properties of oil that affect recovery
9:00- 9:30 Booms for containment and protection
9:30-10:15 Documenting an oil spill
10:30-12:00 Sorbents and chemical agents
1:00- 4:40 Tank demonstrations and attending supervisors' exercises
4:40- 5:00 Critique of tank demonstrations and exercises

Wednesday

8:00- 9:30 Shoreline protection and restoration, oily debris disposal, and beach cleanup
9:45-10:30 Oil spill cleanup cooperatives
10:30-11:15 Oil cleanup contractors
11:15-12:00 Small boat handling
1:00- 4:40 Field exercises
4:40- 5:00 Critique of field exercises

Thursday

8:00- 8:45 Communications
8:45-11:25 Field exercises: floating sorbent pick-up to simulate oil spill
11:40-12:00 Critique of field exercises
1:00- 2:15 U.S. Coast Guard (Capt. of Port, Strike Force)
2:30- 3:00 Use of aircraft
3:00- 3:30 The role of the EPA in oil spill cleanup
3:30- 5:00 Implementing a contingency plan
7:30- 9:30 Night exercises emphasizing difficulties of working at night and in foul weather

Friday

8:00- 9:00 Training program for the response team
9:00-10:30 Security at the spill scene, insurance claims, and public relations
10:45-12:00 Closing remarks, course critique, course summation, and presentation of certificates