

Development of fit-for-purpose training programmes

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Introduction

Effective oil spill preparedness requires personnel who understand, and can perform, a variety of emergency response and incident management functions. The purpose of oil spill training is to ensure that these personnel are identified and given appropriate opportunities to learn and maintain relevant knowledge and skills. This paper describes introduces and each of the fundamental elements of an oil spill training programme i.e. needs assessment, design, delivery and evaluation.

Main Results

For many personnel, their role in oil spill preparedness will be an additional duty to their normal or daily job. Some of the skills applicable to a person's normal job may be directly relevant to their allocated role during an emergency. However, the unique and varied challenges posed by an oil spill response will require an understanding that extends beyond the normal experiences of a person's job. A training programme must take this into account to be fit-for-purpose, enabling personnel to perform safely and effectively in the case of an emergency.

A stepwise process, known as the 'training cycle', is recommended to assist organizations and individuals in implementing the programme. The four stages of the cycle are shown and consist of the following activities.

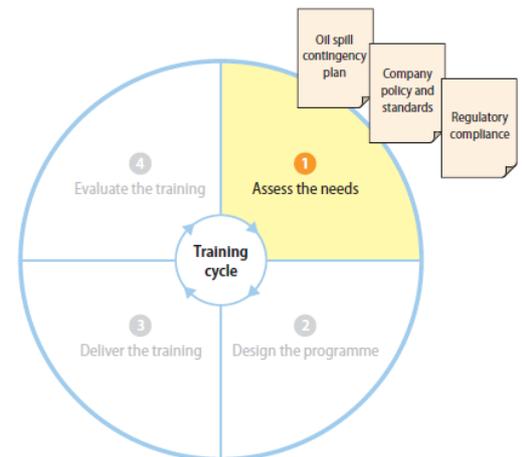
Assess the needs

An oil spill contingency plan usually provides the starting point and bedrock for the needs analysis and consideration of learning requirements. A contingency plan should specify any mandated training requirements and include an organizational and geographic scope, as well as the relevant oil spill response techniques and operational procedures to be employed. These contingency plan elements underpin and determine the skill and knowledge requirements for the incident management and emergency response teams that will implement a response. The purpose of the needs analysis is to:

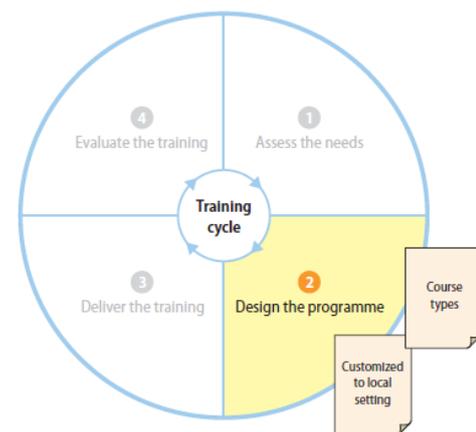
- identify knowledge and skills that already exist within an organization;
- provide an analysis of the necessary roles within a response organization;
- assess whether personnel can fulfil their allocated roles;
- identify gaps; and
- provide the basis for establishing the best learning methods and building a training programme based on needs.

Design the programme

When the needs analysis is complete, its findings and outcomes should provide a clear basis for establishing and designing an appropriate training programme. It will have identified the number of personnel the programme will cover and the specific skill sets required. The programme may comprise a series of courses encompassing a variety of different activities but the key to success is ensuring a direct linkage to the outcomes of the needs analysis.

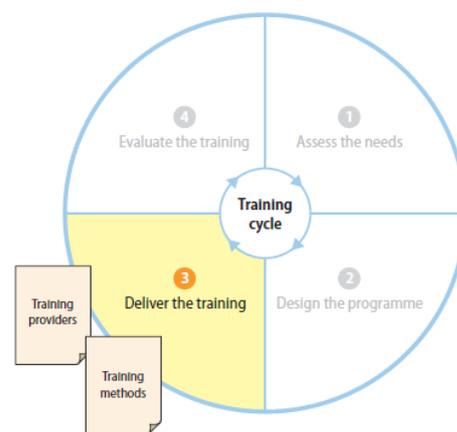


Many organizations make use of oil spill training courses run as published events by professional oil spill response organization. This may centre on the IMO OPRC Model Courses, whose content has recently been refreshed (IMO, 2018). Well-designed training courses will typically include the learning objectives associated with their various elements. It may be useful to commission in-house courses customized from published courses. In some cases, specialized courses focussed on specific aspects of oil spill preparedness and response may be appropriate (e.g. surveillance, shoreline clean-up, environmental impacts and terrestrial response). In all cases the need for refresher courses should be considered in the programme, though an integrated exercise programme may be an effective means to ensure personnel retain knowledge and skills.



Deliver the training

There are a variety of methods which may be used to deliver training. In most cases a training course will involve a variety of these methods, with the aim of helping to retain the attention and interest of trainees. As a general principle the use of methods that actively engage the trainees is encouraged. Although a training course is likely to involve some degree of traditional presentation and explanation by an instructor, significant benefits in understanding, learning and information retention are gained when trainees are challenged to become involved in discussions, attempt table-top exercises, visit equipment stockpiles and carry out practical deployments.



The widespread availability of Internet access and broadband connectivity is leading to increasing use of online / electronic training tools and e-learning courses. Courses offered online have the advantage of allowing trainees to access them remotely and at their convenience. However, the absence of an instructor, and the potential lack of motivation either to undertake or complete online courses may restrict take-up. Available courses tend to be relatively short, taking a few hours to complete. Developing engaging and interactive online courses requires a significant investment of time and effort.

An effective instructor is a critical element for a successful training course. In addition to thorough lesson planning, the instructor should have a suitable background, experience and presentational / facilitation skills. The minimum requirements for an instructor will vary with the type of course. In cases where more than one instructors are delivering a course, it is viable to have less experienced tutors under the control and supervision of an experienced senior instructor. A senior instructor should have a minimum of five years' experience in the field of oil spill response.

Typical instructors have practical experience responding to oil spill incidents, covering both Tier 2 and Tier 3 events. Where a course's focus is on operational issues and includes practical deployments, the instructor should have hands-on knowledge and experience of the equipment to be used. The instructor should have familiarity with the content of relevant oil spill contingency plans, at facility, regional and national levels as appropriate.

A wide range of published materials is available on oil spill preparedness and response. The quantity of reading materials is likely to be far greater than can be viewed by the large majority of trainees and this should be borne in mind when providing references. The type of course will determine which publications are recommended or highlighted. The majority are available in English, but a number have also been produced or translated into other languages.

Consideration should be given to providing a course workbook to the trainees, usually containing copies of the presentational materials used. The workbook may also contain summary text about

subjects covered and other supporting materials. Workbooks can provide space for trainees to make key notes during presentations but should prevent the need for copious note taking.

Evaluate the training

Evaluation of the delivered training is necessary to verify that learning objectives are appropriate and being met, and that instructors are achieving acceptable standards; it also enables the identification of potential areas for improvement in the training content or experience.

Participants in training should be given various opportunities to provide feedback on their experience. At the informal level, this can be a one-to-one dialogue or group discussion with the instructor(s), either during course breaks or at the end of a course. Written feedback provides a more formal and structured method to capture trainees' feedback. An evaluation form may incorporate the opportunity for trainees to rate course sessions and express their overall views on the course delivery and structure, e.g. administrative arrangements, the balance of teaching methods, and quality of presentational materials.



During the delivery of course, the instructor can gauge the level at which trainees are building knowledge and retaining information. This may be achieved by simple techniques such as asking the trainees occasional questions and using short tabletop exercises. Assessing the retention of knowledge beyond the training course is much more challenging. Most organizations do not have the resources available to undertake comprehensive follow-up assessment of trainees. The primary method for checking and ensuring that trainees have retained key information is through the integration of training and exercise programmes. Putting skills and knowledge into practice through structured oil spill simulation exercises is a very effective way to ensure that learning is retained. Therefore, the joint planning or integration of training and exercising programmes is highly beneficial and ultimately complementary.

Conclusion

A fit-for-purpose training programme stems from an initial needs analysis and is delivered through a variety of methods. Integration of training and exercise programmes can promote retention of knowledge and skills.

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