I'm here because I have to be: Can Accredited Oil Spill Response Training be Tailored to Meet Everyone's Needs?

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Abstract: The OPRC 1990 Convention obliges signatory governments to establish a programme of exercises for oil pollution response organizations and training of relevant personnel. It also calls on IMO to develop a comprehensive training programme in cooperation with interested governments and industry. IMO has developed training courses to address all aspects of oil spill planning, response and management. These are known as the OPRC Model Courses.

These courses are accredited, in various guises, by government-approved agencies. The UK authorities: Maritime and Coastguard Agency and the Department of Energy and Climate Change, have developed standards for such training that are adapted from the OPRC model courses and tailored to meet UK needs for both ports and harbours and the offshore oil and gas industry.

These courses all contain specific content that <u>must</u> be delivered by the training provider for the delegate to receive an accredited certificate. A course that is not totally relevant to the delegate, attended 'because the delegate has to', is not the best starting point for either delegate or trainer. So can these courses still be tailored to meet Clients specific operational needs whilst also meeting the awarding body criteria for certification?

In the ideal world, the answer should be yes; accredited training can be redesigned and implemented to meet specific company requirements, and thereby remain relevant to the client.

This paper will consider how this can be achieved, recognizing the accreditation rules that we need to abide by, to realize the best end product for the client.

Paper

The International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC) 1990 obliges signatory governments to establish a programme of exercises for oil pollution response organizations and training of relevant personnel. It also calls on the International Maritime Organisation (IMO) to develop a comprehensive training programme in cooperation with interested governments and industry. The IMO developed training courses to address all aspects of oil spill planning, response and management. These are known as the OPRC Model Courses.

These courses are accredited, in their various guises, by individual government-approved agencies, as the IMO do not accredit them. The UK Competent National Authorities: the Maritime and Coastguard Agency (MCA) and the Department of Energy and Climate Change (DECC), have developed standards for such training that are adapted from the OPRC model courses and tailored to meet UK needs for both ports and harbours and the offshore oil and gas industry. The accrediting body in the UK appointed by the MCA and DECC for these courses is the Nautical Institute (NI).

To become accredited under the NI scheme a training provider must demonstrate that they have met the relevant course standard and are delivering the required material. Once accredited a training provider can receive a spot inspection by either the NI, the MCA or DECC during the delivery of a course, to ensure the accreditation criteria are still being met. A training provider will have to undergo reaccreditation every 3 years, under the NI accreditation scheme.

Within the training standards provided by both the MCA and DECC are guidelines for: the “target audience” of each course, minimum course duration and awareness levels. This is shown in the tables below:

MCA Course Levels

AWARENESS	MINIMUM DURATION IN HOURS	COURSE TYPE	TARGET AUDIENCE	IMO EQUIVALENT
Familiarisation and preparedness for oil spill response	8	MCA 1/1p Foundation (Management)	Management, public relations	
Operators role in oil spill response		MCA 1/1p Foundation (Operator)	First Responder – absorbent response	
Basic use of Tier 1 equipment including practical deployment	12	MCA 2/2p	First Responder – Equipment operator	None
Ability to act as a supervisor in oil spill response	24	MCA 3/3p	Supervisor (including beachmaster with previous training to at least type 2/2p or appropriate experience)	IMO 1
Ability to prepare for, manage or take part in the management of an oil spill response	32	MCA 4/4p	Assistant Harbourmaster, Harbourmaster of small or medium port, or members of a response management team	IMO 2
Ability to act as an Executive Commander incident controller starting from basic entry	40	MCA 5/5p	Harbourmaster or large port or response team manager	IMO 3

DECC Course Levels

AWARENESS	MINIMUM DURATION IN HOURS	COURSE TYPE	TARGET AUDIENCE	IMO EQUIVALENT
Assessing oil spills and their consequence, activating contingency plans and reporting pollution incidents to authorities.	4	Offshore On-Scene Commander (OIM) UK DECC level 1	Any OIM or Offshore Company Rep without formal (IMO level 2 Equivalent) NI accredited training,	None
Acquaint and raise the awareness of personnel selected to undertake the role of an executive or corporate decision-maker, or his / her advisor, dealing with priority setting and significant external liaison during an oil spill.	4	Corporate Management UK DECC level 2	Senior managers without formal training in Oil Spill Response to undertake this module at the time of appointment or prior to holding a Senior Response Manager’s duty roster position.	None
Assess situation; activate Contingency plan; develop a response action plan; assist in establishing & organising a response structure; assist in activating an operational response; activate an Operational Response; manage and control ongoing response; assist in the decisions to deactivate a response; debrief & report.	24	DECC Onshore Emergency Responder UK DECC Level 3	All personnel, staff and contractors, who are Emergency Room Managers or hold positions as advisors dealing with response to offshore oil spills.	None
Assess situation; activate Contingency plan; develop a response action plan; assist in establishing & organising a response structure; assist in activating an operational response; activate an Operational Response; manage and control ongoing response; assist in the decisions to deactivate a response; debrief & report. Plus 8 hours of practical equipment deployment.	32	Onshore Emergency Responder UK DECC Level 4	Any person requiring international recognition or likely to be involved as an onshore IMO level 2 On Scene Commander or Responder on behalf of an oil company.	IMO 2

The UK Oil and Gas industry, and any UK based oil spill response organisation or contractor use the above criteria to decide who should attend each course based on individual job roles or emergency response positions, and then book the relevant course with an accredited training provider. This will either be on an open, (available to all) course or closed, (usually client company only) courses.

Open Courses

Open courses are much more difficult to tailor to meet the requirements of each of the learners, as the trainers have to use generic course material for the smaller syndicate exercises and case studies. Yet even here some individual relevance can be added to practical table-top sessions if the group is big enough, using syndicates of 4 or 5 people, where different scenarios can be used to reflect the interests of the course delegates. This will require some pre-course research by the trainer(s) but could be covered on the booking form. The use of guest speakers from relevant regulatory bodies, can also add to the relevance of the course.

Closed Courses

With closed courses there is ideally an aim to design a course and pedagogy relevant to respond to the learning needs of the client, whilst still meeting the requirements of the accrediting body. In so doing close interactions with companies for identifying their learning needs can be developed. Company knowledge and practice can be integrated into the courses, and practitioners from the client company can be included as guest speakers. To make this happen will require greater commitment from the Client, in both terms of time and money, but can be done by looking at the four main components of a training course:

- The employee attending the training course;
- The client commitment to the training;
- The course content itself and relevance;
- And the Trainer(s).

The Employee

If we want adults to feel involved so that learning will occur, we need to encourage the necessary level of involvement and help set them up for success. The Chinese philosopher, Lao Tse, provides a brief but well-expressed phrase for adult learning:

> *Tell me, I may listen*
> *Teach me, I may remember,*
> *Involve me, I will do it.*

The learner wants a useful and applicable learning experience. Adult learners appreciate immediate relevancy. It is a great incentive when training is instantly valuable and helpful to one's work or job role. The learner needs to be presented with the benefits of engaging in the training, and in most cases this will be enough to motivate them. For example: "*This course will give you the background knowledge to understand and participate in an oil spill response*". Of course this must be said with a caveat: *"It will not make you competent but will provide the first building blocks for your role, competence comes with experience".*

There are six simple but powerful training steps, which will ensure that adult learners will be engaged and involved in the learning process, (1). Their involvement will increase the probability that real learning will occur and will be applied once the workshop/course is over:

1. Treat them all with respect:
    - Listen to their concerns, whilst recognising their knowledge and experience. Appreciate that there are different learning styles, and use an assortment of learning activities and training aids to meet the needs of these different styles. Ask questions of the group rather than telling them answers they may already know. If asked a question open it up to the group, encourage discussion.

2. Make the content meaningful:
    - Adults tend to learn what they consider of benefit and importance, help them understand how the content of the course will benefit them. Tailor the content to meet their needs using relevant examples, focused on real life application rather theory. Teach practical, immediately applicable skills wherever possible.

3. Build on what they already know:
    - Adult learning and retention is increased when new ideas are based on information or skills they already possess. Draw on their previous learning and experience by explaining concepts with familiar and relevant examples.

4. Follow the building blocks of learning:
    - Most adults feel comfortable in a learning situation when they have the pre-requisite knowledge and skills. Ensure you teach to the desired level for the group, and use learning activities appropriate for that level. Always check for understanding of what has been discussed/presented.

5. Make it easy to learn:
    - The adult brain is better at absorbing smaller amounts of information at any one time, so break complex concepts and skills into smaller segments. Build subjects from simple to complex, teaching only a few things at time during a learning segment.
        - Brain studies show that adults can learn 4-5 familiar and meaningful items at a time, but only 2-3 new items at a time if they are completely unfamiliar and meaningless.

6. Let them use what they've learned:
    - Once adults have successfully used new skills in the classroom, they are more likely to use them outside the classroom. Build their confidence and competence through appropriate practice by having them apply new skills to solve job-related problems. Give them an opportunity to strategize on how they will put in to practice their new learning.

It is important that we focus on practical knowledge and skills, which will be used in a real scenario. To motivate the learner as shown above, training should try to concentrate on workplace or real life implementation, rather than on extraneous facts and theories. This can be done whilst still meeting the criteria required by the accrediting body, but the examples used need to be relevant to the audience.

Motivation is the force that drives people to fulfil a need. If you can tap into a learner's intrinsic motivation - where the learning itself rewards an individual or an inner goal – you've succeeded as a trainer. However, often in the workplace, people are often unmotivated because they are required to take courses in which they have no interest. In the majority of cases oil spill response will not be the day-to-day job of the learner, but a role they undertake as and when required, gaining experience is therefore limited to exercises or incidents occurring. This is where the Client needs to engage.

The Client

Many organisations face the challenge of developing greater confidence, initiative, solution-finding, and problem-solving capabilities among their people. Organisations need staff at all levels to be more self-sufficient, resourceful, creative and autonomous. This behaviour ensures staff can operate at higher strategic level, which makes their organisations more productive and competitive. People's efforts produce bigger results, it's what all organisations try to achieve.

We know that training, and also enabling learning and personnel development, is vital for any organisation. It helps improve quality, customer satisfaction, productivity, morale, management succession, business development and profitability. So all supervisors and manager should enable and provide training and development for their people – training develops people, it improves their performance and raises their morale; training and developing people increases the health and effectiveness of the organisation, and the productivity of the business.

The Client needs to select carefully when putting together an emergency response team, just because someone is in a certain job role, as per the regulatory body guidelines, it does not mean that they will become an effective team member during a response. As trainers we hope that those put forward for the OPRC model courses, in their various guises, are happy to be there and are willing to learn, though this is not always the case. If we rebrand this type of training as Continuous Professional Development (CPD), there is potential to re-engage all parties concerned. It is no longer possible to do all your learning at the start of your career and then spend the rest of your working life using what you have learned. The sell-by date for professional learning is getting shorter by the day. Our assets do not remain the same if we do not freshen them – they only diminish.

Employers are increasingly concerned that employees should undertake CPD, first, because it contributes to staff keeping their skills, knowledge and experience up to date. Secondly, may employers like staff to take responsibility for their own development and CPD provides the envelope in which a diverse range of development strands may be held together and leveraged for maximum benefit. Thirdly, CPD helps with succession planning. For some organisations in highly competitive sectors, CPD is a means of retaining staff. Employees vote with their feet – if the organization is not committed to their professional development, they go elsewhere.

By engaging with the Client more effectively we can produce relevant course material built around their concerns and assets, but still able to meet the accredited criteria. By asking some basic questions we can begin to client-tailor the course for them:

- What documentation is available for use during the course, to make the training bespoke?
  - Oil spill contingency plans, environmental sensitivity maps, charts relevant to assets, emergency room forms, etc.
- If the training is at the Clients premises, can their emergency room be used for the table-top exercise sessions?
  - If not, can a visit to the emergency room be arranged
- What guest speakers, observers for the table-top exercise can the Client provide to show their commitment to the training?
  - Even if this is just an opening address at the start of the course, it will help the course attendees understand where it fits in the bigger picture.
- What exercises have been planned in after the training, to help build experience?
  - There are still delegates who come to undertake their 3-year refresher, as required by the industry regulators, who have never taken part in an exercise or real incident.
- Do the course delegates know what position/role they will undertake during an oil spill response?
  - This will be useful throughout the course but especially during the table-top exercise session.

As previously mentioned to make the above happen will require greater commitment from the Client, in both terms of time and money, but it will give them engaging and relevant training that not only meets the regulatory body requirements but compliments and enhances their business.

<u>Course Content</u>
The accredited course content puts both the course designer and the trainer, sometimes the same person, in an unusual position. Whilst we have prescribed criteria that must be met for each standard and type of course, and to which training level, for example for DECC there are 3 levels:

- Description of requirement must be mentioned in a module (*)
- Or, basic ability to undertake task as described and tested in course exercise scenario (**)
- Or course module undertaken and exercised, capable of controlling task competently (***)

There is a certain amount of background or underpinning knowledge that must be included to meet each standard, to enable the leaners to demonstrate understanding at these training levels. We need to work hard at creating experiences that get and keep audiences engaged and motivated.

When planning a lesson or module, think about how you can weave it into: Explain, Demonstrate, Question, Practise and Review, wherever possible, and if you have a large volume of content, you may need to break it into separate chunks each of which has an E-D-Q-P-R. "*Chunking"* of course content is a critical concept because of how our brain appears to work. *Chunking* (2) refers to the strategy of breaking down information into bite-sized pieces so the brain can more easily digest new information. The reason the brain needs this assistance is because our working-memory, which is where we manipulate information, holds a limited amount of information at one time.

The "*chunking"* concept was first formulated by George A. Miller in 1956, when he presented evidence that working memory is limited in capacity. As previously mentioned adults can absorb 4-5 familiar and meaningful items at a time, but learn only 2-3 new items at a time if they are completely unfamiliar and unused. Cognitive researchers now know that the capacity of working memory depends on the type of information, the features of the information and the abilities of the person under experimentation. The take-away here is that if a learner's working memory is full, the excess information will just drop out—as in disappear. That's a big challenge for a course designer or trainer. It means that if you are explaining something complex and the learner must hold several factors in mind to understand it, you'll need to chunk information into bite-sized pieces. So how do we "chunk" our courses?

1: Start with the course outline.
Use a chunking strategy while determining the content of a course, based on the required criteria. Determine how modules, lessons and topics will be organized into a logical and progressive series of building blocks. Start with large chunks of conceptually related content and use these as your modules.

2: Turn modules into lessons, and lessons into topics.
Divide modules into smaller related chunks and these will become your lessons. Continue with this process until content is broken down to the topic level. As you become more familiar with chunking you can fine-tune the internal structure.

3: Chunk your presentation slides/screens.
When you have a solid module-lesson-topic structure, organize the content so each slide consists of one chunk of related information. Depending on how you design your courses, this could be at the topic level, at the detailed learning objective level or at the concept level. As a guiding rule, avoid introducing multiple topics, learning objectives or concepts at one time.

4: Do a working-memory capacity check.
During the development, think in terms of the working memory. Do you really need to include all the content you have in front of you? If not, get rid of

superfluous content. Less is more, and you can always provide links to reference materials. Will the chunk of content require the learner to hold more than a few things in memory at one time in order to understand it? If so, break it down again. By utilizing mixed-media courses, which are both visual and text, we can lessen the demands on working memory.

If you have lots of unrelated facts, it's possible that this is extraneous content and you don't need them. If you are sure these facts do need to be included, find some way that they can be connected together. In this situation, you have to chunk information in the opposite direction. Use any strategy that turns individual bits of information into meaningful chunks; a comparison or metaphor might work.

The course structure should create an active learning experience. As a general rule, most learners are motivated by engaging and active learning events over passive ones. The structure should also promote group interactions, providing opportunities for group discussion, collaboration and group problem solving. Presentations and other course materials need to be visually compelling and aesthetically pleasing, as most people are hard-wired for pictures so this will help to motivate them. When reviewing the content of modules get the audience involved in the challenge of a game or focused on solving problems in a simulated environment, learning will become an incidental aspect of winning or finding solutions.

Practice new skills by using short simulations and group discussion facilitated by the trainer. Then get the group to practice the new skill in a different simulation within a small group, with assistance by the trainer when needed. Finally, have them discuss applying the new skill to their own job/role. This should help them feel more confident about their competence, and thereby increase the likelihood that they will continue to use the new skill when they return to their jobs.

If a table-top exercise is included simulate the workplace as much as possible, base scenarios on real-world experience and examples, but don't give the whole scenario in one go – a bit of mystery is a great motivator. Ask the learners thought provoking questions and offer problems that don't have a single right answer. Challenge the learners to think about exceptions to a rule or to question conventional wisdom. Let them learn through their mistakes, don't be tempted to correct something immediately, question their reasoning and logic.

Supporting material – No one can retain all the content delivered during a course, but by providing learners with job aids, and online support systems, we can give them further support in the workplace. We can also facilitate exploration of the subject matter, by providing access to additional resources, references, videos and case studies we can create an ideal environment for personal exploration. This will also provide the opportunity to construct knowledge in a way that is meaningful for each learner.

<u>The Trainer</u>
Of course you have all of the above in place but unless you have the right trainer too, it will not be a success. Being a good trainer requires experience and skill.

Experience comes from practice and skill from knowing your subject, learning the theories, applying them, getting feedback and consciously improving. Some things that will help you progress are:

- Recognise your target audience – what's in it for them? What do they expect? Why are they attending your training?
- Find ways to generate interaction and get your participants doing something
- Provide as much variety as practicable
- Demonstrate where possible – it will save many words
- Use humour wherever possible. If associated with analogies, this can help participants recall specifics.

Above all respect your audience, and let your audience know *why* it's important to take that particular course. Avoid cynical or condescending tones and honour the learners, you may be the only advocator of the course content they have contact with. Ask for feedback, so the leaners feel that they are contributing to the course and can help you to improve it. This might help some learners buy in to the program.

Summary

As discussed these courses all contain specific content that <u>must</u> be delivered by the training provider for the delegate to receive an accredited certificate. A course that is not totally relevant to the delegate, only attended 'because the delegate has to', is not the best starting point for either delegate or trainer. So can these accredited courses be tailored to meet Clients specific operational needs whilst also meeting the awarding body criteria for certification? Yes they can with some additional work, but as shown they need the right commitment from everyone involved: engagement and a willingness to learn from the Candidate; time and money from the Client; relevant and functional course material from the training provider and a Trainer who can create an experience, not just deliver a course.

References:

1. *How to engage Adult Learners – Six Steps to Adult Learning Success. By Deborah Laurel, April 2010*
2. *Chunking Information for Instructional Design, by Connie Malamed, 2009*
3. *Mythologies of Adult/Continuing/Lifelong Education – Malcolm Tight, July 1999*