

Developing a regulatory framework for certifying spill management teams in California: a balancing act

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ABSTRACT 1141476

Major oil spills in California have historically instigated legislation aimed at improving preparedness and response. Most recently, public concern over management of high-profile pipeline spills precipitated the 2017 passage of Assembly Bill (AB) 1197, which mandated a certification program for spill management teams (SMTs). AB 1197 directs contingency plan holders to identify a certified SMT capable of managing their reasonable worst-case spill (RWCS) volumes, and tasks the Office of Spill Prevention and Response (OSPR) with adopting regulations establishing criteria for certification, including personnel on-scene times, training, and response objectives. We aimed to develop regulations detailing requirements that are achievable, but effectively advance preparedness, drawing upon accepted standards while incorporating mechanisms for flexibility. As we developed the regulations, we conducted informal scoping meetings with industry to fine-tune these mechanisms. We created three tiers for certification delineated by RWCS volume. To account for phased resource mobilization, we established separate requirements for initial response and cascading SMT personnel. We applied team-based training requirements to initial responders and used pared-down National Incident Management System qualifications for cascading personnel, allowing equivalent courses and/or experience to substitute for required training courses. We composed a short objectives checklist, aiming to capture essential tasks to be completed within the first 24 hours. The final regulatory

package strikes balances between flexibility and prescription, and between achievability and advancing statewide preparedness.

INTRODUCTION

The Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (the Act, Cal. Gov. Code § 8754.1-8670.95; Pub. Res. Code § 8750-8760), passed in September 1990 in the wake of the Exxon Valdez and American Trader oil spills in 1989 and 1990, respectively, set forth a comprehensive framework for oil spill prevention, preparedness, and response in California. It established a state oil spill response administrator in the Department of Fish and Game (now Fish and Wildlife) with extensive authorities and responsibilities, such as implementing a state oil spill contingency plan (Cal. Gov. Code § 8574.1, § 8670.7), establishing contingency planning standards for vessels and marine facilities (§ 8670.28), and many other coordination and regulatory functions. In 1991, OSPR was established to fill this broad mandate. The state oil spill contingency plan was completed in 1993, and OSPR's first set of regulations (Title 14 CCR, Chapters 1-5) were filed by the end of that year.

The Act has been amended many times over the intervening decades, sometimes expanding OSPR's mission considerably. In 2014, Senate Bill (SB) 861 broadened OSPR's jurisdiction over marine waters to include all surface waters of the state, bringing new types of facilities into OSPR's purview and requiring them to maintain and exercise contingency plans. Most recently in 2017, Assembly Bill (AB) 1197 (Limón) added a section to the Act requiring OSPR to certify spill management teams (SMTs)(Cal. Gov. Code § 8670.32), and amended the section governing contingency plan content to require plans to identify a certified SMT capable of managing a spill of the reasonable worst-case spill (RWCS) volume (§ 8670.29(b)(8)(A)). The bill's author represents Santa Barbara and Ventura counties, the sites of high-profile pipeline

spills in 2015 and 2016, respectively. Announcing the bill, Asm. Limón explained that AB 1197 would ensure that oil spill management teams have adequate training to manage spills in California by imposing objective criteria to which SMTs will be bound (Senate Cmte. Env. Qual., 2017).

AB 1197 codifies the necessity of qualified incident management personnel as a critical component of response planning by mandating an SMT certification process. Under the statute, plan holders may contract with certified SMTs or furnish their own certified teams, and OSPR must adopt regulations establishing the criteria and process for certification. The bill stipulates that, at minimum, the regulations must address criteria for certification including geographic regions of the state in which SMTs intend to provide services, the number of people provided, timeframes for personnel arriving on-scene, SMT objectives at exercises, and training qualifications (Cal. Gov. Code § 8670.32(j)). It prohibits OSPR from granting certification until a team's performance has been observed in California (§ 8670.32(c); Senate Cmte. Appr., 2017). The bill received support from several environmental non-governmental organizations (NGOs), such as the Natural Resources Defense Council and the Surfrider Foundation. The Pacific Merchant Shipping Association (PMSA) registered official support, stating that by providing OSPR with the authority to assess SMT performance, AB 1197 would ensure that SMTs will provide "competent, professional service in response to an oil spill" (Senate Rules Cmte., 2017). AB 1197 received no formal opposition, and it easily passed both houses of the legislature, with votes of 76-2 in the Assembly and 39-1 in the Senate, becoming law on January 1, 2018.

To comply with the newly amended Act, OSPR must establish the SMT certification criteria and process, then implement the program by processing and verifying applications, and finally, observing SMT performance before granting certifications. OSPR's primary aims in

rising to this task were to advance preparedness in California and fulfill AB 1197's directives using criteria that are attainable and do not impose unnecessary burdens on industry. OSPR has ~150 active facility contingency plans spanning operations including offshore, onshore, and inland production facilities and pipelines, marine terminals, fixed and mobile facilities conducting over water fuel transfers, railroads, and other facilities in the oil supply chain impacting waters of the state, as well as over a thousand of tank and non-tank vessel plans, and we must apply the program to all of them. Practices for assembling spill management teams vary widely because of the diversity of operations, risks, and cultures of plan holders under OSPR's jurisdiction, as well as the dynamic nature of spill response. The program must accommodate teams comprised both of personnel employed by plan holders and affiliates/parent companies, as well as SMTs offering contracted services, since the statute requires that all teams listed in contingency plans attain certification. These challenges necessitated a multi-faceted approach to balance the ambitious intent of the legislation with the broad range of stakeholders to whom the program will be applied.

METHODS

First, we looked to existing OSPR programs for examples of best practices and to avoid conflict with and unnecessary repetition of processes already in place. Over the next few years, OSPR will undergo a harmonization of marine and inland preparedness regulations, creating an integrated statewide program; we were forward-looking in designing the SMT regulations to fit within this statewide preparedness model. We drew upon other states' approaches to registering SMTs, as well as established standards for preparedness and response, such as the frameworks provided by the National Incident Management System (NIMS) and the industry association IPIECA (formerly the International Petroleum Industry Environmental Conservation

Association, now just “IPIECA”). An informal scoping process helped us understand industry’s approach to establishing teams during preparedness and response, enabling the development of regulations that are reasonably consistent with established industry practices. We aimed to meet OSPR’s statutory obligations while accounting for other laws and regulations, plan holder practices, and the agency-centered perspective of established training programs. The dialogue with industry as we released progressive drafts was essential in developing regulations that fulfill AB 1197’s mandate and provide flexibility while establishing clear and justifiable standards.

Informal scoping process

Shortly after AB 1197 became law, OSPR held three scoping meetings in different regions of the state in February 2018 to solicit input from industry stakeholders before beginning to draft the regulations. OSPR posed questions to industry about current spill management practices, aiming to understand how quickly teams mobilize to respond in California, how many high-level incident management personnel are retained, and how companies obtain incident command system (ICS) training. We inquired about current spending on SMT staffing and contracting, means by which to reduce additional costs to industry, and whether there were reasonable grounds for exemptions that OSPR should consider.

The first draft of the regulations was released in August 2018, and OSPR held another round of scoping meetings in October to solicit feedback and suggestions for improvement. We subsequently overhauled the draft regulations, making substantive structural changes in response to the feedback. Subsequent drafts were distributed in April and August, 2019, and accompanying rounds of scoping meetings were conducted in May and September, respectively. We continually adjusted the structure and language of the regulations with each successive draft. After each set of meetings, summarized proceedings of the discussions were posted online, along

with indications of how we planned to address issues of concern, make clarifications, and incorporate participants' suggestions, so that stakeholders were kept informed while they awaited the release of subsequent drafts. Throughout the course of informal scoping, OSPR held additional meetings with industry groups and individuals to solicit targeted feedback.

Stakeholders were strongly encouraged to send written feedback to help align the proposed regulations with their spill response operations, and to provide suggested language to translate the substance of the certification requirements into regulatory language that would not raise unnecessary red flags. We prioritized being as flexible as possible with the language, provided it accurately reflected the criteria we identified.

RESULTS

We developed a framework drawing from existing OSPR programs, examples set by Alaska and Washington, standards outlined in NIMS and industry guidance documents. The informal scoping process was a critical mechanism for calibrating standards and language.

Establishing a structure and process for certifying SMTs

AB 1197 was designed to engender a process and guidelines for SMT certification analogous to OSPR's oil spill response organization (OSRO) rating process, according to the Senate's bill analysis (California Senate Rules Committee, 2017). The OSRO program has been ongoing since the early 1990s; plan holders must contract with rated OSROs to contain and clean up spilled oil and protect sensitive sites. The program successfully expanded statewide after the passage of SB 861, and its effectiveness in ensuring the ability of OSROs to respond to spills in California was cited by PMSA in their statement of support for AB 1197. Both the OSRO and SMT programs implement processes for vetting and approving response entities as being qualified to provide planning capabilities required in industry contingency plans. Because of

these similarities, we looked to the OSRO program as a model for certifying SMTs' ability to provide response resources, adapting processes and language from its regulations (Title 14 CCR § 819.01-819.07) and implementation. Some aspects in which SMTs differ from OSROs complicated applying the OSRO program as a direct model: plan holders rely on OSROs exclusively for containment and recovery, but most plan holders rely on at least some of their own spill management resources. Thus, the SMT program must be equally applicable to contracted and plan holder-owned resources and account for teams comprised of both plan holder and contracted personnel. Another consequential difference is that the OSRO program is centered around tactical equipment, while the SMT program necessarily focuses on personnel. Since personnel are more subject to turnover and unavailability than equipment, our process had to take this into account, while ensuring adequate provisioning of trained personnel.

OSROs may apply for a rating to provide various types of response services (containment, on-water/terrestrial recovery, storage, shoreline protection) and on-scene arrival times in specific geographic regions. On their applications, OSROs list their dedicated equipment, the means by which it is transported to and deployed at spill sites, and provide descriptions of the health and safety qualifications of laborers and supervisors. Records of equipment registration/maintenance and personnel certifications must be maintained and presented to OSPR upon request. After submitting a complete application, passing an inspection, and successfully completing an unannounced equipment deployment, OSROs receive a rating. Rated OSROs are eligible to be listed in contingency plans, which must include sufficient resources to respond to a spill of a RWCS volume, as defined by plan type (Title 14 CCR § 817.02(d)(1), 817.03(d)(1), 817.04(j)(4), 818.02(e)(1), 818.03(e)(1)). We decided to mirror this

process to certify SMTs, while accounting for the differences between tactical and incident management resources.

We created application forms on which SMTs will indicate the ICS positions provided, geographic regions for which services are provided, number of personnel trained in accordance with criteria described in the regulations, and how personnel mobilize to meet on-scene requirements. An online submission form for applications is in the works. After OSPR verifies training plans at a planned inspection and on-scene arrival capabilities on an unannounced basis, SMTs will be granted interim certifications and can be listed in contingency plans. Once SMTs achieve the required objectives at a RWCS volume exercise and demonstrate all qualifications have been obtained, they will gain full certification. Certification exercises will be conducted in concert with plan holder exercises through OSPR's Drills and Exercises program (Title 14 CCR § 820.01, 820.02), as directed by AB 1197 (Cal Gov. Code § 8670.32(e)(1)).

In addition to looking to the OSRO program, we considered OSPR's contingency plan regulations. Although the requirement for contingency plans to list a certified SMT is newly imposed, OSPR's contingency plan regulations already contained provisions regarding SMTs. The regulations require plans to identify a spill management team (Title 14 CCR § 817.02(a)(4), 817.03(a)(4), 817.04(h)(3), 818.02(a)(4), 818.04(a)(4)) and to list their spill management personnel, along with their training and experience (§ 817.02(d)(5)(C), 817.04(s)(1), 818.02(e)(5)(C)). However, current regulations do not include criteria for what should constitute a spill management team, what qualifications they should possess, or how quickly they should be able to arrive on-scene ready to respond. To comply with AB 1197, the new regulations must address these criteria.

Tiers and geographic areas for SMT certification

At the first scoping meetings we held prior to drafting regulations, industry participants suggested classifying SMTs by tier. Accordingly, we divided SMTs into three tiers based on RWCS volumes listed in plans for which services are provided, using spill volume as a proxy for response complexity. Tier I SMTs must be capable of managing challenging multi-resource responses; Tier II and III SMTs will manage simpler responses using fewer resources, and training and personnel requirements are scaled to tier. Although factors like spill site and environmental and social conditions may overwhelm spill volume as determinants of incident complexity, using spill volumes as a planning metric is consistent with state and federal regulations. Plans are made to direct responses to volumes determined by operational risk; RWCS and worst-case discharges are defined in respective regulations by vessel or facility type. Using RWCS to classify SMTs is also consistent with the language in AB 1197 (Cal. Gov. Code § 8670.29(b)(8)(A)).

OSPR's inland drills and exercises program divides plans into three tiers based on RWCS volume for deliverables during exercises (Title 14 CCR § 820.02(a)(2)), while the older marine regulations differentiate plans by vessel or facility type (§ 820.01(e), (f)). Since inland plans were already tiered by volume, we chose the same volumes to establish tiers for SMTs servicing inland plans as those delineating the drills and exercise tiers. For SMTs providing services to marine plan holders, we selected different tier boundaries based on plan holder RWCS and operations (Table 1), considering that marine spills in California are more likely to result in complex responses with greater intensity of public interest. We set the Tier II/III boundary so that the largest mobile transfer unit (MTU) tank trucks would fall into Tier III; the Tier I/II distinction was based on the distribution of RWCS volumes in approved plans, and a conservative estimate of a spill volume (600 bb1, ~25,000 gal) to California's marine waters

inevitably resulting in an extended, complex response. Although stakeholders pointed out that the global oil industry uses the term “tier” to designate the points of origin of response resources relative to a spill’s location, we used tiers since the concept is already used by OSPR plan holders.

Table 1: SMT classification tiers

SMT Tier	Spill volume - Inland	Spill volume - Marine
I	>1000 bbl	> 600 bbl
II	500-999 bbl	250-599 bbl
III	< 499 bbl	< 249 bbl

Table 1: SMT classification into tiers by RWCS volumes in plans for which services are provided.

We chose to certify SMTs by planning regions established by the US Coast Guard and OSPR for marine and inland agency contingency planning, respectively. SMTs providing services to marine operators will be certified by area contingency planning area, and SMTs servicing inland operators will be certified by response planning area. A major concern expressed by industry during scoping was whether SMTs would need to go through separate certification processes for each geographic region in which they provide services. To address this, we adopted a process similar to the OSRO program, whereby SMTs must show that personnel can arrive in all of the areas for which they request certification, but they are not required to exercise in each area to earn certification. They are, however, subject to unannounced verification of ability to mobilize within established timeframes to each region. Unlike the unannounced drills used by the OSRO program, SMTs will not be expected to deploy personnel; they will simply be required to demonstrate how personnel would arrive in accordance with requirements to a spill site presented in the unannounced scenario.

Personnel numbers and on-scene timeframes

To develop requirements for number of personnel and on-scene arrival times, we consulted Washington and Alaska’s SMT regulations, as well as the input provided by industry

during the scoping process. Both states have requirements for the number of personnel, ICS positions, and on-scene timeframes, none of which are addressed in OSPR's previous regulations. Alaska requires non-tank vessel incident management teams listed in streamlined vessel plans (18 AAC § 75.562) to identify 10 individuals to fill command and general staff positions (Incident Commander (IC), Planning Section Chief (PSC), Operations Section Chief (OSC), Logistics Section Chief (LSC), Finance Section Chief (FSC)) with one alternate for each. Teams must maintain the availability of 10 or 15 unnamed additional responders, depending on vessel capacity, who need not be specifically identified.

In 2019, Washington expanded requirements for SMTs in contingency plan regulations (WAC 173-182-280), as directed by the 2018 Strengthening Oil Transportation Safety Act (Wash. Senate Bill 6269 § 303; RCW 90.56.240). The revised regulations require plan holders to include the names of personnel filling 14 ICS positions including command and general staff and key branch and unit leaders (IC, Public Information Officer (PIO), Liaison Officer (LOFR), Safety Officer (SO), OSC, PSC, LSC, FSC, and six branch directors/unit leaders). Teams must include two alternates for command and general staff positions, but alternates are not required for branch director and unit leader positions. Washington effectively implements a minimum of 18 personnel by restricting the number of positions for which an individual may be listed to two.

After reviewing the examples set by Alaska and Washington, we included eight primary command and general staff positions: IC, SO, PIO, LOFR, OSC, PSC, LSC, and FSC. This is consistent with industry's suggestion that the regulations refrain from prescribing ICS positions beyond section chiefs. We divided personnel into two groups designated as initial and cascading personnel, applying tiered requirements to each group. Initial response personnel for tier III SMTs must be able to fill the IC, SO, and OSC roles, and tiers I and II must include those three

plus one additional position (Table 2). Cascading personnel include all eight positions, with tiered requirements for alternates: tier I SMTs must have two alternates for IC and PSC and one alternate for other positions, tier II SMTs must have one alternate for each position, and tier III SMTs are not required to have alternates.

To allow cross-training while ensuring teams do not rely on just a few personnel trained for all positions, we set requirements for minimum personnel of 12,10, and eight individuals to fill the 18, 16, and eight cascading response positions allotted for tiers I, II, and III, respectively (Table 3a), while initial response personnel must include a minimum of four or three personnel for tiers I/II and III, respectively. Personnel may fill both initial and cascading positions if they have the requisite training.

Table 2. Initial response personnel training requirements

SMT Tier	ICS Positions	Training Course				
		ICS 100	ICS 200	ICS 300	IS 700	IS 800
Tier I	IC, SO, OSC +1	ALL	ALL	≥2	ALL	ALL
Tier II	IC, SO, OSC +1	ALL	ALL	≥1	ALL	ALL
Tier III	IC, SO, OSC	ALL	≥1	≥1	ALL	≥1

Table 2: Initial response personnel ICS positions and team-based training requirements. The cell contents (≥1, ≥2, ALL) denote the number of personnel within the team of 3-4 personnel required to have each training.

Table 3: Minimum personnel and training requirements for cascading response personnel

		ICS Position	IC	SO	LOFR	PIO	OSC	PSC	LSC	FSC	Minimum
(a)	Personnel	Tier I	3	2	2	2	2	3	2	2	12
		Tier II	2	2	2	2	2	2	2	2	10
		Tier III	1	1	1	1	1	1	1	1	8
(b)	Training	Tier I	ICS 300, 400, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	
		Tier II	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	ICS 300, PS	
		Tier III	ICS 300	ICS 300	ICS 300	ICS 300	ICS 300	ICS 300	ICS 300	ICS 300	

Table 3: (a) Minimum personnel trained to fill each position by Tier; far right column indicates the minimum number of personnel required, allowing for cross-training. (b) Training requirements for cascading ICS positions by Tier. Training also include participation in a RWCS exercise (PS = position-specific training).

The on-scene requirements we developed are similar to those imposed by Alaska and Washington. Alaska requires ICs to be available within two hours of notification and capable of

arriving in identified regions within six hours; identified personnel must be able to arrive within 12 hours, and a subset of the additional available personnel must be able to arrive within 24 hours. In Washington, ICs must be able to arrive in the state within six hours of receiving notification, and contingency plans must describe on-scene arrival timeframes for the other positions. OSPR's SMT regulations require initial response personnel to be capable of arriving within eight hours of activation, and cascading personnel to be able to arrive within 24 hours. The eight-hour timeframe was extended from six-hour requirements in early draft regulations to account for SMTs responding to remote areas, but with the expectation that personnel should arrive as soon as possible and that SMT functions would be underway remotely while responders mobilize. The 24-hour timeframe for cascading personnel was selected based on the reality that many highly trained response personnel are located outside of California and cannot reliably arrive within the shorter timeframes we had included in the first draft.

Training requirements

There were few examples of spill management personnel training requirements in statutes or regulations. Neither Alaska nor Washington require training beyond applicable health and safety training, although Washington specifies that familiarity with ICS and the Northwest Area Contingency Plan are required. In recent rulemaking, the Pipeline and Hazardous Materials Safety Administration (PHMSA) considered mandating ICS training for incident management personnel in railroad oil spill response plans, but relented, instead encouraging ICS 300 and Incident Commander training as best practices (PHMSA, 2019). Lacking examples of training criteria for spill management personnel in regulations, we turned to NIMS and FEMA's National Qualification System (NQS). The NQS applies an objective standardization scheme for incident management personnel's formal training and experience to ensure that agency response

personnel have minimum sets of qualifications. The NQS's Resources Typing Library Tool (RTLTL) (FEMA, 2019) classifies ICS position types based on the incident typing scale created by the US Fire Administration (USFA) and incorporated into the US Coast Guard's Incident Management Handbook (IMH) (USCG, 2014). The NQS training criteria list ICS and FEMA courses, HAZWOPER training designations, and additional recommended training. We designed training requirements based on pared-down NIMS typed personnel qualifications. Because NIMS is oriented toward government agencies responding to all hazards, we also consulted IPIECA's oil spill training guidance (IPIECA, 2014) to balance NQS-derived criteria with an industry perspective.

We applied tiered training requirements for SMTs, with team-based training requirements for initial response personnel (Table 2) and more rigorous training for cascading response personnel. The motivation for this was to establish minimum training requirements that allow for flexibility in the first 24 hours of a response, such that SMTs could assemble an initial team from various permutations of available personnel. The initial response personnel training requirements include basic and intermediate ICS courses.

Requirements for cascading response personnel qualifications are position-based and more robust than initial response personnel requirements. Cascading personnel may be qualified via either a formal "training track" or an "experience track." The training track includes formal ICS or All-Hazards courses, allowing for equivalent non-agency courses, and participation in an is expressed as number of hours of experience on responses of varying complexities (typed incidents or incidents meeting criteria associated with typed incidents, as in USCG, 2014) for each position by tier. All cascading personnel must have ICS-300. In tiers I and II, all positions

are required to receive position-specific training, and tier I ICs must have ICS 400. Tier III cascading personnel are not required to have formal training beyond ICS 300 (Table 3b).

IPIECA's guidance (IPIECA, 2014) stresses that because incident management skills are typically practiced on rare occasions, refresher training is crucial. Accordingly, the regulations require that spill management personnel receive at least eight hours of ICS refresher training each year, which may include participation in exercises, formal training, or any other review of or engagement with ICS. IPIECA also recommends a maximum of three years between trainings to retain detailed knowledge (IPIECA, 2014). Because some key response protocols in California are unique to the state, we included a requirement that personnel fill their ICS positions at an exercise or spill in California every three years.

Exercise objectives and program implementation

AB 1197 directs OSPR to establish criteria for objectives that SMTs must complete at exercises (Cal. Gov. Code § 8670.32(h)(2)). Many SMTs currently participate in exercises of contingency plans through OSPR's Drills and Exercises program, which requires contingency plans to be exercised on a yearly (facilities) or triennial (vessels) basis, achieving California-specific objectives derived from the National Preparedness for Response Exercise Program (NPREP). We considered using existing OSPR objectives rather than creating new criteria, but opted to generate a separate checklist for SMT certification since the current exercise objectives focus on contingency plan testing and refinement, while SMT objectives are directed at testing the capabilities of personnel working as a team. We developed a list of nine objectives SMTs must be able to complete within 10, 16, and 24 hours that are integral in initiating a successful response. After achieving the objectives at an exercise simulating a response to the RWCS volume, SMTs will be granted full certification.

DISCUSSION

The informal scoping process provided invaluable opportunities for OSPR and industry to interact candidly to continuously refine the regulations over the course of almost two years. This process was crucial to developing regulations that account for current spill management practices and establish requirements that are practicable while advancing preparedness. The final regulatory package was vastly improved through ongoing exchanges with industry stakeholders throughout the informal scoping period.

Streamlining the new regulations with existing requirements using clear mechanisms to minimize duplication of efforts was a major industry request throughout the scoping process. At early scoping meetings, plan holders expressed hope that the SMTs in their approved plans would be sufficient to satisfy new requirements. However, when we surveyed contingency plans to assess whether they included details about SMTs that might satisfy the criteria specified by AB 1197, we found that plan holders' interpretation of the SMT provisions in the contingency plan regulations varied widely. Some plans provided detailed lists of spill management personnel, while others simply included generic organizational charts; no plans sufficiently discussed training. The results of our review indicated that existing plans were not adequate to address the criteria required by AB 1197, underscoring the necessity of developing clear, objective requirements for personnel numbers, on-scene timeframes, and training.

Plan holders and contracted SMTs expressed concern in early meetings about having to conduct additional exercises at considerable expense. Facility plan holders tend to adhere to a three-year exercise cycle, testing the RWCS volume every three years, and vessel plans are exercised every three years, so we extended the length interim certifications are valid from one to

three years. This provides ample time for teams to become certified without having to hold more exercises.

In the first draft of regulations we circulated, teams included eight fully trained command and general staff who would arrive on-scene within six to eight hours. At subsequent meetings, industry stakeholders expressed concern, reporting that the combination of training requirements and relatively short on-scene time frames made compliance unattainable. Moreover, they expressed concern that OSPR was conflating initial responders with SMTs, the latter term referring to cascading personnel who arrive to assume incident management after ~24 hours. In response to these concerns, we separated personnel into initial and cascading personnel and assigned reduced, team-based training requirements to initial personnel. These adjustments made the requirements much easier to meet, while retaining acceptably high standards.

Another area of concern for industry was a perceived focus on individuals. Since the oil industry is dynamic with a high mobility of personnel, they feared the new regulations would require them to constantly update OSPR about changes. There was also apprehension that plan holders could be found in noncompliance with their plans via public records requests if individuals other than identified personnel respond to an incident. To assuage these concerns, we structured applications so that personnel are not identified by name, though training records will be verified by OSPR, and added an exigencies statement to emphasize that the SMT regulations are planning standards. Having criteria for certifying SMTs does not dictate which personnel must respond to each incident, it merely establishes the minimum spill management personnel capacities that should be listed in contingency plans as response resources in the event of a RWCS incident.

Training requirements were the most contentious topic throughout the process, with industry consistently arguing that the requirements were too prescriptive. The first draft of the regulations required ICS 300, ICS 400 and prerequisites, as well as position-specific ICS courses of all identified ICS positions, which were derived from a combination of NQS standards and OSPR's internal training program. Industry argued that these standards were onerous and failed to consider the value of on-the-job training and experience. To address this, we removed several courses from the requirements, and allowed equivalent, non-agency-led courses to substitute for listed courses. We also added provisions for qualified experience to substitute for training, enabling personnel to become qualified via training or experience "tracks." Experience is quantified in hours spent performing ICS positions at emergency responses, including out of state and all-hazards responses. Early drafts of the regulations included HAZWOPER requirements consistent with the NQS and Occupational Safety and Health Administration (OSHA) guidance documents (OSHA, 2001), but we removed these requirements in favor of a provision stating that SMT personnel must have safety training if required by law for their position and exposure.

We also introduced some partial exemptions based on feedback we received during informal scoping. Some inland plan holders pointed out that their SMT requirements exceeded management and support needs for the tactical response capabilities required in their plans, since inland facilities only impacting waters designated as intermittent or ephemeral in the National Hydrography Dataset (USGS, 2019) are not required to have on-water response capabilities. They argued that OSPR should be consistent in applying relative reductions in required response capabilities. We agreed, and exempted SMTs representing tier III plan holders with potential impacts to these waterways from complying with cascading personnel requirements. We also

heard from contracted SMTs that they do not retain PIOs, since plan holders they represent have their own public relations personnel or contract with preferred firms, so we exempted contracted SMTs from providing PIOs. These adjustments further aligned the SMT regulations with response capability standards established in OSPR's other regulations, and with industry practice.

Finally, after the Covid-19 pandemic made in-person training and exercises impossible, we had to consider further adjustments. We put an immediate pause to the rulemaking while we sought to understand how long the situation might last. We ended up delaying the rulemaking by several months, pushing back the anticipated effective date of the regulations from January 1, 2021, to October 1, 2021. In addition to delaying the rulemaking, we amended the regulations to extend the deadline for teams with an interim certification to earn a full certification by a full year. We also removed a requirement that trainings designated by NIMS standards as classroom courses be delivered in-person in order to qualify as equivalent courses. To preserve training standards, we specified that position-specific courses be led by an instructor, whether they are held virtually or in person. Finally, we extended the training grace period from 18 months to three years to give teams ample time to arrange for safe delivery of training courses that may not be available virtually.

CONCLUSION

After issuing three drafts of the regulations during the informal scoping process, holding scoping meetings and considering written feedback with each draft, we saw the regulations and feedback begin to converge. At the final round of scoping meetings, many SMTs volunteered to become early adopters to test out the certification process. This signaled that the informal scoping process had been successful and that we could make final adjustments and submit the

package for formal rulemaking. The framework for SMT certification considers OSPR's ongoing programs, examples set by other states, and NQS and NIMS standards. It was refined over two years of informal scoping and incorporating industry's current practices and concerns, and later adapted to the challenges posed by the Covid-19 pandemic. We expect the final rulemaking package to be approved by summer 2021. We look forward to implementing this program and sharing more about this experience with other agencies facing similar legislative mandates.

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