

Chevron Position Qualification System for Development of Emergency Response Leadership

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ABSTRACT 300248:

The 2010 Deepwater Horizon incident raised the awareness of the potential scale, complexity and duration of oil spill events, highlighting the need for emergency response organizations to develop and maintain advanced levels of capability and readiness. Such capability and readiness requires teams of experienced and trained personnel who ideally can be cascaded throughout an enterprise to fill Incident Command System (ICS) positions in coordination with outside organizations. Experience gained through either responses to real-world events or carefully crafted simulation exercises is critical to the development and maintenance of response team capability, and providing such can present a significant challenge for team coordinators.

Chevron Corporate Emergency Response developed and tested a qualification program aimed at providing consistency and structure to the training and experiential development of Chevron's corporate emergency response personnel. The Chevron Position Qualification System (CPQS) program establishes a minimum level of training and observed demonstrated competencies for leadership positions within the ICS structure. Twenty-one position-specific workbooks detail training, readiness and competency metrics for internal certification through the program. CPQS draws from different established agency programs and is consistent with ICS training curriculum. The program is tailored to fit the roles filled by Chevron Corporate Emergency Response Team members.

Members of Chevron's Corporate Emergency Response Teams have a baseline of professional training that supports and sustains a corporate culture of safety, operational discipline and environmental, safety risk and hazard awareness. The CPQS program was built upon the premise that participants have this foundational training, capability and professionalism. The CPQS program builds upon this foundation, expanding the professional competency of response personnel through a standardized program. The CPQS program establishes minimum ICS and function-specific courses along with recommended training and the demonstration of specified skills and abilities in either real-world or exercise environments. Qualified and vetted approvers, known within the program as Qualified Approvers, provide consistent verification of the demonstration of skills and capabilities identified for each position. Additionally, these expert observers provide commentary on areas where skills or professional expertise can be improved.

The goal of CPQS is to enable a mobile and versatile workforce that can respond worldwide and integrate into response organizations around the globe. Skills gained through the completion of CPQS requirements enable business units to transfer personnel into key response positions across the enterprise to carry out responses to more complex events. Common training and exercising goals allow organizations to gain efficiencies and build progressive experience and expertise-building opportunities through shared professional development resources. Periodic refresher training and ongoing participation in response exercises or actual incidents are also required to maintain the certification.

The CPQS program is currently used by Chevron's Corporate Emergency Response Teams and was field tested at a three-day response exercise in Trieste, Italy where responders from relevant functional groups completed training and demonstrated response capabilities and ICS skills. CPQS is also being utilized with the Chevron regional response team in the Gulf of Mexico with an initial implementation at a training and exercise event in Covington, Louisiana, USA.

INTRODUCTION:

Performance qualification standards have been used by military and governmental agencies for decades to promote consistent performance by various functional teams and develop the level of expertise required for safe, efficient and well-coordinated operations. Chevron's position qualification system program drew from established performance qualification standards to create a program specifically for Chevron's Corporate Emergency Response Teams. The CPQS program focuses on the development and identification of functional leaders in the roles of command and general staff, section leaders and select unit leaders.

With a world-wide network of response personnel, Chevron recognized the potential benefits of a common programmatic method of training and preparing response personnel for the risks inherent in the increasingly extreme and remote work environments of the oil and gas industry. With the Deepwater Horizon incident, multiple shifts of response teams from multiple agencies and organizations were required to work together for extended periods and manage large, often remote, response operations under a unified leadership structure. Such a response could only be successful and effective through consistent functional leadership operating within a well-understood framework. CPQS provides a system to identify and develop ICS functional leaders within its corporate response community by establishing a core level of training, demonstrated experience and expertise and recognized professional leadership of key response positions.

The Chevron emergency response community is made up of both professional responders and employees who work in business functions other than emergency response or emergency management. If a large emergency event were to occur, these employees fill positions across the ICS structure (such as finance, legal, human resources or procurement). The CPQS program provides a way to assimilate these team members to the ICS structure and doctrine so that they may seamlessly enter an emergency situation and contribute alongside other internal team members, contractors, regulators and governmental entities. The CPQS program is designed to

give team coordinators and local leadership tools to know how to place experienced personnel from across the enterprise to support the command and general staff, section chiefs and unit leader positions.

The CPQS program will play an important role in maintaining a pool of recognized and internally certified corporate functional emergency response leaders over the long term. As response team membership changes, team coordinators need to be engaged in the ongoing identification and development of new leaders through training and exercising, and promoting and advocating knowledge transfer through the coaching of identified skills. CPQS provides the structure to onboard and develop new Corporate Emergency Response Team members and maintain the readiness of existing team members.

A heightened awareness of the need for emergency response capability typically follows in the wake of major emergency incidents. Thankfully, such incidents are rare. CPQS plays an important role in keeping focus on preparedness even in the absence of a major incident, and is a tool for engaging leadership in promoting enhanced capabilities and maintaining a state of readiness to respond to a variety of incidents.

METHODS:

The CPQS program employs a two-fold strategy aimed at assimilating new members and developing their expertise and capabilities, and at the same time maturing and maintaining the expertise of existing members while facilitating knowledge transfer between experienced and new team members. The program frames an additional layer of strategy to emergency exercise and drill programs through three primary drivers: exercise scenarios should elicit the demonstration of competencies called for in the CPQS workbooks; the scope of exercises should allow sufficient time for competency demonstration; and, the number of exercise opportunities should be sufficient for participants to complete the program within specified timeframes.

The CPQS program was built on the foundation of Chevron's corporate culture and assumes a basic level professional competency for all program participants. Chevron personnel who are selected and approved for leadership positions in emergency response have generally completed compliance and leadership training with an emphasis on safety, procedural awareness, operational discipline and business ethics, and have demonstrated the ability to operate effectively within a hierarchical leadership structure.

CPQS works within existing corporate professional development and annual performance programs by providing clear goals for participants' engagement with training and exercise events tied to career development plans.

Training and exercise philosophy

The training elements of the CPQS program include a range of basic and intermediate training as well as position-specific training and recommended training. Responders complete core training and position-specific training to gain internal certification. Beyond completion of the program, participants are strongly encouraged to engage in ongoing training to further

develop skills and keep current with the latest trends and technologies. The CPQS program works in concert with a targeted emergency management training and exercise program designed to create the breadth of opportunities that allow responders to complete training elements and demonstrate the range of tasks in the CPQS workbooks. This systematic method of training and exercising allows for increased efficiency through the cooperative use of training and exercising resources among participating organizations.

It is a good practice to couple training and exercise events. Training should include basic/refresher training that will both onboard new members and reinforce/update skills for more seasoned personnel. Specialized training should be offered to functional groups followed by application through the exercise activities.

International application

Due to the global span of the oil and gas industry, an industry-specific development program should take an international perspective. The CPQS program has its roots in U.S. performance standards, but the concept of a qualification program is internationally recognized. The CPQS program factors in international equivalencies for training and certifications, such as Hazwoper (Hazardous Waste Operations and Emergency Response), and allows for customization in areas where additional local requirements apply or circumstances call for additional specialized skills. The demonstrated competency elements of the program are designed to be broad enough that they can be applied in any response environment and enhance the responders' ability to work with a range of regulators, governmental entities and response management structures.

Response strategies and tactics across a global enterprise may vary to meet local risk profiles. CPQS provides a common core responder development curriculum to promote effective collaboration between responders from across the enterprise for major emergency events. Team coordinators can have confidence in the skill levels and appropriate placement of personnel within the ICS structure even without personal knowledge of individual responders.

CPQS program details

In addition to workbooks that detail requirements for position-specific certification, CPQS defines the organizational infrastructure to support the program: registry of qualified approvers for task sign-offs, registry of qualified training organizations, annual review of program to evaluate program effectiveness, continual improvement planning and program governance including the consideration of exception requests, historical recognition, and final certification of participants. The program was designed so that workbooks can be completed by active participants within 3 years.

Participants should have familiarity with the fundamentals of emergency response before beginning the program, and it is strongly recommended that participants complete basic ICS training (100, 200 and 300 or international equivalents) as prerequisites. The successful completion of the training, readiness and demonstrated competencies and two professional recommendations are the basis for achieving position certification.

Positions covered

The CPQS program certifies 21 positions that align with the ICS structure and with Chevron's corporate emergency response organizational structure. The positions include incident command, command staff, general staff and select unit leader positions. These positions were chosen for the CPQS program because they were considered important functional leadership positions in an incident response.

CPQS workbooks

Twenty-one CPQS workbooks detail the specific elements needed for position certification, and provide a repository for recording completed tasks. Workbooks were developed by a multi-disciplinary team of subject matter experts and reviewed by an external industry-recognized expert. The workbooks include the following sections:

- Position-specific Prerequisites: such as a recognized law degree for the Legal Officer
- Core Training: training that is common to all positions (with the exception of additional Hazwoper certification for specified positions such as Safety Officer)
- Position-Specific Training: training targeted to meet the specific demands of the position. Position-specific training should be taken after completing Core Training.
- Position-Specific Professional Development: training and activities targeted to advance overall emergency response skills or to develop sub-discipline specialty skills.
- Readiness for Activation and Mobilization
- Demonstrated Competencies: five competencies broken down into discrete tasks
- Validation Roster (Qualified Approver log)
- Professional References
- Historical Recognition log
- Final Certification
- Certification Maintenance records
- Coaching, Mentoring and Personal Development

Program participants are responsible for maintaining their workbooks as a record of achievements toward completion of the program.

Demonstrated competencies

Demonstrated competencies are defined, observable activities that clearly display a responder's understanding, ability and command of the tasks for fulfilling the ICS role and responding to an emergency event. Demonstrated competencies are divided into five categories:

- Readiness: Fluency in ICS Organization Structure
- Assume Position Responsibilities
- Lead Assigned Personnel
- Communicate Effectively
- Verify Completion of Assigned Actions to Meet Identified Objectives

Each category of demonstrated competencies includes a set of tasks that must be completed successfully by the responder and observed by a Qualified Approver.

If the participant demonstrates a competency by successfully completing a task while being observed by a Qualified Approver, the participant can request sign off on the task. Sign-offs are logged in the CPQS workbook, and comments can be inserted by the Qualified Approver. Tasks require one to three sign-offs depending on the complexity and nature of the task. If appropriate, Qualified Approvers are encouraged to provide constructive feedback on areas for improvement or additional development in the Coaching section of the CPQS workbook.

Historical recognition

The CPQS program recognizes the training, exercising and actual incident response of participants accomplished before beginning the CPQS program. Training and exercising that occurred not more than three years past can be considered for historical recognition credit. Actual response experience that is not more than five years old and that included the development of an Incident Action Plan and the use of ICS 201 (or equivalent) can also be considered for historical recognition credit. Historical activities and coursework are mapped to specific CPQS elements and tasks are reviewed and validated by a Qualified Approver. Additionally, participants requesting historical recognition must be observed performing the ICS role by a Qualified Approver to received historical recognition credit.

Endorsement and maintenance of certification

CPQS certification is a one-time accomplishment, but ongoing maintenance is required to keep the certification current. Certified responders must complete ICS 320 training, or participate in a full-scale Tier 2 or 3 exercise using current ICS technologies at least once every three years. Additionally, Hazwoper certification (or international equivalent) must be kept current through ongoing refresher training. Readiness to respond elements, such as visas, health records and go-kits must be maintained.

It is expected that certified responders continue to engage in ongoing training to develop new skills in their areas of expertise. Additionally, it is expected that certified responders contribute to the development of junior responders by serving as Qualified Approvers or coaches, as appropriate.

Program governance and support

Program administrators and team coordinators work together to establish a pool of Qualified Approvers, both internal and external to the organization. Internal Qualified Approvers are responders who are recognized as functional leaders and subject matter experts in their field and have a current and validated certification through the CPQS program. External Qualified Approvers include industry and agency personnel who are recognized for their expertise. The program deployment plan included a significant number of outside subject matter experts (SMEs) serving as Qualified Approvers, especially during initial deployment. External SMEs were used to gain feedback on the program itself and to help establish an internal pool of recognized and certified qualified approvers. Additionally, the ongoing use of outside Qualified Approvers helps to keep Chevron responders current with industry best practices, broadens

responders' understanding of response techniques and aids in efforts toward coordination with outside organizations.

RESULTS/DISCUSSION:

PollEx 2013

Chevron Corporate Emergency Response sponsored a full-scale Tier 3 exercise in the port of Trieste, Italy during which the CPQS program was initially field tested. The exercise included over 150 participants with approximately half coming from Chevron organizations. The exercise began with two and a half days of training that included general ICS training and function-specific training geared toward CPQS training elements. Following the training there were two and a half days of operational exercise that included setting up a command post with a full ICS structure and Crisis Management team, deploying corporate and business unit teams and response equipment. The response team included representatives from over 20 Chevron organizations and over 15 external organizations. Local authorities and agencies, external organizations and ship agents participating in the exercise included the Harbor master, terminal and pipeline organizations, Italian Coast Guard, oil spill response organizations (OSROs), vendors, other oil and gas companies and university staff. The exercise included a simulation of an oil spill from a tank vessel approaching the discharge terminal in the harbor of Trieste, Italy, releasing 20,000 bbls of Tengiz crude (API gravity of 45.3, specific gravity of 0.80). The simulation specified that crude oil reached the breakwater, oiled rocky shoreline, sandy beaches, industrial sites and environmentally sensitive sites (mussel beds, etc.) and wildlife.

For this initial role out of CPQS, Chevron relied exclusively on external SMEs to serve as Qualified Approvers. External recognized SMEs were asked to observe exercise participation and performance, to assess the program itself and to provide feedback on its implementation. SME input on the program included feedback on the level of detail included in the workbook, input for the Qualified Approvers guide, management of participants' expectations for gaining sign-offs, and input on what should constitute a qualifying event (e.g., complexity of response, production on an incident action plan (IAP), etc.).

It was anticipated that activities during the Trieste exercise would provide participants with sufficient opportunities to demonstrate competencies and gain approver sign off for approximately 30% of a position workbook. This level of sign-off assumed that participants had prepared for participation in the CPQS program by becoming familiar with training and competency elements and planning their exercise activities. It was further anticipated that senior, experienced participants could achieve a significantly higher level of program completion by preparing documentation and records for historical recognition credit.

Over 50 Chevron employees participated in the initial launch of the CPQS program during the Trieste exercise. Of those 50 participants, 20 earned sign-offs through historical recognition (which included validation by SME observation of position skills during the

exercise). Of those 20 with historical recognition sign-offs, three participants completed the workbook through a combination of validated historical recognition and demonstration of tasks. Approximately 31 participants, who did not complete competencies through historical recognition, achieved an average of 30% completion rate for competencies signed off.

Findings

The program was found to be more effective with participants who had a minimum level of responder experience and training before beginning the program. Qualified Approvers have limited time to observe participants and provide sign-offs. It was found that participants with insufficient experience seeking sign-offs prematurely resulted in an inefficient use of limited Qualified Approver time. To address this finding, a strong recommendation was included to have responders complete ICS 100/200/300 training before beginning the program. Additionally, it is recommended that team coordinators play an active role in nominating team members for the program and scheduling and overseeing the participation of responders in the exercise roles to ensure the progression of experience for the varying levels of expertise found in the team. The greatest benefit from the program came from focusing on unit leader positions and above.

The importance of pre-work before attending the exercise needs to be emphasized. Participants who became familiar with the program, completed the historical recognition records, and planned out competency demonstrations before the exercise achieved the greatest benefit.

Concerns had been raised before the exercise that the CPQS program may detract from the focus of the exercise; this concern was overcome during the Trieste drill. Exercises typically include periods of low activity. It was found that activities associated with the CPQS program could be completed efficiently during such lulls, making good use of time as sections were alternating activities.

It was found that attempts to cycle too many responders through vested positions so that they could be observed by Qualified Approvers added confusion to the flow of the exercise. It was found that responders gained the greatest benefit from simulated response activities by remaining in a role for two operational planning cycles. The length of two planning cycles allowed responders to achieve a greater familiarity and fluency with the role, allowed for more thorough observations by Qualified Approvers, was less disruptive to the exercise flow, and allowed participants to implement coaching and recommendations as they progressed through the workbooks. Responders participating in deputy roles were successful in achieving sign-offs.

GOM Regional Response Team Exercise

The CPQS program was used with a regional response team in the Gulf of Mexico region (GOM RRT). The GOM RRT is made up of team members drawn from Chevron participating organizations throughout the gulf. The program was initiated during a regional Tier 2 drill held in Covington, Louisiana during November of 2013. The exercise included two days of general ICS and functional training, and two days of operational exercises. The drill simulated a break in a line running from a pipeline terminal to a refinery, spilling 10,000 bbls of deep-water crude oil.

The exercise had approximately 200 participants including responders from five Chevron organizations and representatives from 11 governmental entities and other external organizations. Twenty-one responders participated in the program.

Lessons learned from the PolEx exercise were incorporated into the GOM RRT exercise design. Pre-read material regarding the program was provided to the GOM RRT in advance of the exercise so that responders could gain familiarity with the workbooks before launch of the program. Program coordinators limited participation to responders who had completed basic ICS training. The program registration process included a brief program overview and introduction to Qualified Approvers. Exercise engagement for the program participants was monitored to confirm that they stayed in their position role for at least two cycles.

As with the Trieste exercise, most participants were able to complete approximately 30% of demonstrated competency tasks. Some historical recognition credit was granted to 15 participants.

Findings

Limiting the participation in the program to responders who had completed basic ICS training increased the efficiency of the Qualified Approvers and resulted in higher levels of signoffs because of the reduced time approvers spent observing tasks that did not yield sign-offs.

Keeping participating responders in an ICS position for a minimum of two cycles was found beneficial both to participation in the CPQS program and to the flow of the exercise. Responders gained additional levels of confidence in the role, and were able to apply coaching from the first cycle into the second cycle yielding additional demonstrated competency sign-offs.

Some Qualified Approvers with specialized expertise in a particular hazard (e.g., fire) were assigned to observe exercise participants with a different area of expertise (e.g., oil spill). In such cases, additional guidance should be provided to Qualified Approvers to confirm the appropriate assessment of the skill level being observed.

CONCLUSIONS:

Oil and gas resources are increasingly being produced in remote locations and under more extreme conditions. These working environments present new and complex challenges for emergency personnel who must be prepared to respond to potential emergency events. Chevron Corporate Emergency Response developed and field tested an oil and gas industry specific CPQS program for the Chevron Corporate Emergency Response Team that provides a framework to consistently train, exercise and develop functional leaders to promote the progressive development of measurable skills to meet the response challenges of a changing industry.

Chevron PQS enables the efficient cooperation of responders from across the global enterprise by standardizing the development of response capabilities by position against a common metric. The CPQS program offers the following additional benefits:

- Efficiency with training and exercising – cross organizational/functional training and exercises can optimize limited training and exercise budgets
- Enables the transfer of skilled employees between organizations – employees who have completed certification have defined, demonstrated skills and familiarity with larger/broader emergency response framework
- Promotes the progression of skills by driving responders to demonstrate a range of competencies and tasks by position
- Promotes ongoing professional training and the transfer of knowledge
- Accelerates the development and assimilation of new team members
- Planning of professional development activities focused on emergency response

Field test findings have identified that the program is most effective when applied to responders who have completed basic ICS training. Additional supporting documentation and training to implement the program and onboard participants would increase the program's success. Evaluator guidance for Qualified Approvers would contribute to the consistency of CPQS certifications. Flexibility in the program is needed to enable customization by teams who required specialized skills to address specialized risks.

To maximize the benefit of the CPQS program, it should be implemented in concert with a robust training and exercise program. Training and exercise programs should drive a progression of skills and allow sufficient and varied opportunities to complete workbooks in the allotted time.

This paper discusses Chevron Corporation's Emergency Response Group's approach to developing a program aimed at providing consistency and structure to the training and development of Chevron's corporate emergency response personnel. This program was developed for the Corporation's designated emergency response personnel, but it may voluntarily be used as guidance by other Chevron business units to assist them in developing, maintaining, and enhancing the skills and capabilities of their emergency response personnel. The document and program do not represent Chevron Corporation's interpretation of any legal or regulatory requirements that might apply to training or responding to an incident. The authors, contributors, and Chevron Corporation make no representations or warranties (i) express or implied, including but not limited to, warranties of merchantability, fitness for a particular purpose, title or non-infringement and (ii) that the contents of such specification are free from error or suitable for any purpose.

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