



Contractor Life Cycle: Managing Expectations



PREQUALIFICATION ASSESSMENT ORIENTATION MONITORING EVALUATION



Introduction and Summary of Previous Research

Five years ago, the Campbell Institute conducted a research project to understand the best practices of Institute members in managing the safety of their contract workforce. The research was launched in response to concerns about the ways in which occupational health and safety is compromised by the use of contractors. After reviewing the literature, the last Institute white paper established three ways in which safety is compromised by the use of contractors. The first is that financial pressures and deadlines can lead to contractors cutting corners and otherwise engaging in unsafe behavior. Workers in temporary positions are also more likely to work through minor injuries for fear of losing employment, making them susceptible to greater injury.

Second, disorganization in terms of training, supervision and communication can compromise safety among contractors. Contractors and suppliers may be undertrained and underqualified and the lack of communication and lax supervision can mean they never truly acquire the skills or safety knowledge needed for the job.

Last, insufficient safety standards and relaxed enforcement of standards for contractors can explain why contractor safety performance is lower than in owner organizations. Collectively, these three factors contribute not only to the compromised safety of contracted workers, but also the safety of regular workers and product quality.

The previous research established five major steps of the contractor life cycle:



The paper also outlined several best practices of Institute members in managing contractor safety, as well as some common challenges. In the prequalification stage, a best practice included use of third-party prequalification services like ISN and Avetta to help contractors identify and fill gaps in their safety management systems. Many Institute members use prequalification service providers because of the size and scope of their contractor operations. Another best practice was a thorough assessment of contractor safety statistics (e.g. EMR, TRIR, DART, fatality rate), which sometimes included performance on selected leading indicators. Analysis of contractor statistics enables owner organizations to assign "grades" to contractors during prequalification using some sort of internal scale or checklist, which is another best practice in this stage. In the pre-job task and risk assessment stage, a best practice among Institute members was having a method to evaluate the risk rating of the work to be performed by contractors. This is typically done using a risk matrix and places contractors in a predetermined risk category, which helps owner organizations to effectively plan the broad scope of work and develop additional safety procedures and safeguards if needed.

For contractor training and orientation, Institute members have verifications of contractor certifications and permits, particularly in specialized work tasks such as confined space entry, electrical work, hot work, energy control, forklift operations, elevated work, etc. Several members require refresher courses in these areas and others be taken periodically for their long-term suppliers and vendors. All Institute members require that contractors attend safety orientations prior to the start of work.

In the monitoring of job stage, members had regular periodic assessments of contractor work, which ranged from daily checklists and/or safety talks to weekly walkthroughs, and monthly and yearly assessments. These check-in points with contractors plus the maintenance of incident logs help members monitor contractor safety during a project and allow them to intervene quickly should an incident occur.

The common challenges identified in the first white paper were in the latter stages of the contractor life cycle. One challenge was having specific and defined courses of action for contractor infractions. Only half of the members interviewed at that time had a defined process for dealing with infractions. The second challenge was the inclusion of contractor safety statistics into the owner organization's overall scorecard or dashboard, with only two research participants definitively saying they incorporate contractor statistics into the larger organizational metrics. The last common challenge among research participants was the lack of a formalized evaluation of contractors after the work has been completed.

Seeing as the work on the previous white paper was completed over five years ago, the Contractor Management Workgroup at the Campbell Institute thought it fitting to produce a follow-up to the original research with perspectives from other members and updates on their successes and challenges in each stage of the contractor life cycle. What follows are the pain points and successes of seven Campbell Institute members (The Boeing Company, Chemours, Day & Zimmermann, Exelon, Exxon Mobil Corporation, The Mosaic Company, and SDG&E) in managing the safety of their contract workforce.



Current State Pain Points and Successes

Prequalification Stage

The pain points in the prequalification stage remain similar to some of the contractor safety management concerns previously seen in published literature. Those owner organizations, like ExxonMobil, with heavily globalized operations note that international projects may have limited contractor selection because of their location in rural, non-industrialized regions. Another pain point mentioned by members SDG&E and Mosaic is that some contractors have continued to become more "savvy" when it comes to getting hired and will "creatively manage" their accounts with third-party prequalification services, such as altering rates or not recording incidents. Some suppliers are "gaming the system" by presenting safety plans they know will pass muster with an owner organization, but actually have little relevance to the job to be performed. This means that large, yet unsafe contractors can have an advantage over the safe, yet less sophisticated contractors.

As established in the previous white paper, the majority of Institute members use third-party prequalification service providers like ISN and Avetta to handle a large portion of the prequalification work. An area of concern for members is that while these services are highly valuable, many prequalification schemes and tools screen out only the worst contractors, which still places the burden on owner organizations to filter for the best contractor for the job. Even with these concerns in mind, Institute members still note successes in the prequalification stage. Boeing has seen success in contractor prequalification by risk ranking the work to be performed, collecting supplier data submitted to OSHA and EPA, and performing independent assessments of suppliers' EHS programs. Risk assessments are also a strength for ExxonMobil, which also considers contractor's capacity to respond to safety incidents as part of their prequalification process. Day & Zimmermann credit their clear lines of communication around expectations of procedures as contributing to contractor safety, and SDG&E acknowledges their enterprise-wide contractor safety documentation as a factor leading to reduction in contractor injuries.

As with all safety initiatives, having leadership support is a crucial factor in the success of any program. At Mosaic, leadership has been very supportive of spending more money on an expensive contractor to have better safety performance, or providing more resources for a job where the contractor is less strong in safety. This has resulted in better overall management of contractor safety performance.

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PREQUALIFICATION

Pre-job Task and Risk Assessment Stage

The majority of the pain points associated with the pre-job task and risk assessment stage revolve around time constraints. All organizations acknowledged that safety is challenged when the owner organization or contractor (or both) have to play catch up if previously agreed on work contracts get changed just prior to start of work. SDG&E has a process document for changes to contracts and work.

Mosaic also mentioned that compressed schedules, particularly between the close of bid and the start of work, can mean contractors don't have enough time to learn the job prior to mobilization, which can lead to poor safety performance. Provision of more time is not always the answer either, as some contractors will use that time to determine how to make more profit rather than how to be safer.

Boeing has at times experienced emergent work situations for contractors that allows for little lead time, which can make it difficult to accurately determine the risk ranking of work and properly assign individuals to perform risk assessments. Short lead times can also impede the ability to adequately identify and disclose non-obvious hazards, and ensure a comprehensive statement of work and a project-specific safety plan are in place.

When it comes to successes in the pre-job task and risk assessment stage, all members noted their safety plan documentation process. They all have structured processes that require contractor safety plans to be submitted and reviewed by both the contractor and the owner organization. Mosaic provides contractors with two types of safety documentation, a Project Safety Management Plan (PSMP) and a Project Environmental Management Plan (PEMP), which requires contractors to detail how they plan to do the work and think deeply about their processes, housekeeping, risk tolerance, logistics, etc. prior to mobilization. These plans are reviewed and critiqued by Mosaic, and if accepted, they hold a kickoff meeting before mobilization with the contractor business development people and field leadership. This allows Mosaic to get a good feel for the safety culture and leadership of the contractor organization.



ASSESSMENT

Contractor Training and Orientation Stage

A few members mentioned as a pain point the ambiguity in establishing the right level of training and determining who is responsible for training. Day & Zimmermann uses ISN to ensure the accuracy of the training process and eliminate this ambiguity. Regarding certification of contractors, ExxonMobil has experienced some onboarding issues after an agreement is signed with a vendor for a specific job. This can necessitate additional onboarding steps be executed by the vendor.

Mosaic is working on making contractor orientations more applicable to an adult audience, with use of videos rather than PowerPoint presentations, handouts and exams. The safety messaging in these orientations are often more about transferring liability from owner to contractor rather than making the information memorable for the worker. Another concern for Mosaic is that last-minute hiring of contractors means it's difficult to train and provide orientation in advance, leading to a state of unpreparedness in the first days and weeks of the job.

SDG&E has developed a Class One contractor safety manual, which is a comprehensive document, but also acknowledges the information in the manual often stays only with contractor leadership and does not get down to the worker level. SDG&E is working toward ensuring contracted resources are aware of the manual through field level audits. This is a similar pain point for Boeing, where field inspections and audits have shown that contractor supervisors are informed and generally familiar with the site safety manual and specific requirements, but the craft laborers are not. Boeing is doing more to ensure that workers have access and knowledge of rules, that more site- and jobspecific orientations are available and that online orientations are tracked.

Even with these issues to contend with in the orientation and training stage, members have also experienced much success in this area. After realizing much of the safety messaging contractors hear on the first day is not remembered, Mosaic began spreading out the orientation material over the first two weeks of the job. This leads to frequent owner touchpoints during the first weeks of a job, resulting in informal orientation of the contractor in a peer-to-peer coaching style.

Boeing is enhancing their source selection processes to verify regulatory required certifications for contractors, and they are experimenting with access control via a badging system and including contractor competency as part of the control process. For large projects, ExxonMobil does offer safety training that is available to contractor's teams. This gives all teams the same expectations, and as a bonus they are able to bond during the experience.

ORIENTATION

Monitoring of Job Stage

At the monitoring of job stage, many members cited concerns related to culture and communication. SDG&E encounters challenges with contractor data collection and tries to combat those challenges by communicating to contractor leaders the purpose and direction of the data collection, such as what the data is being used for and how the data can affect the way the job is scheduled and performed. Exelon has a similar issue in consolidating the data from contractors and the owner organization and using the information in a way that is most helpful.

Chemours can have issues with contractors that are smaller and/or newer and are not as in touch with Chemours' processes or which monitoring metrics are being collected. More established contractors that are plugged into the Chemours culture have better safety performance. The collection of data is a key issue for Boeing as well, particularly in performing more field observations of contractors and recording those results in a centralized database. Boeing is working on having more visibility to the key performance indicators of contractors while the job is being done.

Mosaic mentioned safety programming is often seen as "one and done" in terms of training, when in reality workers and contractors need constant coaching, mentoring, assistance and monitoring. Contractors also suffer from not having middle managers to protect workers in the field from business-related pressures. Not being worried about the project being delivered on time and under budget can keep workers focused on safety.

SDG&E and Chemours have seen success in job monitoring by introducing checklists that make it easier for contractors to identify and record hazards. The checklists have resulted in less subjectivity when it comes to the observations submitted. The information in the template developed by SDG&E is tracked to completion and communicated in multiple ways across the organization, including a companywide newsletter. They saw improvement in the number and types of observations from contractors after training them on the checklist and the expectations of each section of the template document.

Mosaic has instituted random audits of their Field Level Hazard Assessment documentation. All owner employees participate in the audits, which puts everyone on the same page in terms of the detail and quality Mosaic is looking for in job planning documentation.

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MONITORING

Post-job Evaluation Stage

Maintaining consistency is a pain point for many members when it comes to the post-job evaluation stage. For Exelon, the size of the contractor affects the scope of evaluations, which often means that evaluations are not consistent across their contractor base. Chemours has a challenge with different teams from the same contractor at different sites – the "A Team" at one site may perform really well while the "B Team" at another site has worse performance. These types of individual team evaluations for a contractor need to be recorded and tracked.

At the moment, Boeing has unclear capabilities when it comes to developing a process to review and evaluate suppliers after a job has been completed. Currently there is no database to store information and pull analytics related to contractors, and no defined mechanism to close the feedback loop on the supply chain so that performance data can affect supplier score.

At Mosaic, they are working on making post-job evaluations a two-way street – that is, allowing contractors to evaluate Mosaic on its performance as an owner organization in addition to Mosaic evaluating the contractors. They believe this two-way evaluation process will improve performance for both owner and contractor.

Even with these challenges in the post-job evaluation stage, there are some successes to note. Mosaic keeps a detailed registry of contractor performance with the names of contractors and field staff that did not perform well. They use this registry to restrict site access for those unsafe people and contractors, and to create bidder lists for new work projects.

SDG&E has seen success with an evaluation form that is filled out annually and after completion of a major project. Their project management safety personnel will complete and review all aspects of a complete project, even those aspects that fall outside of safety. This evaluation is one method they have to grade the contractor specifically to their organization. The form is built into ISN and has the ability to affect their ISN score and ability to bid on future work.

EVALUATION

Summary

The pain points and successes of contractor management from Institute members can be summarized in the tables below.

	Contractor safet	v management	pain points
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Lack of qualified contractors in remote regions

More contractors that know how to "game the system" with prequalification services

Compressed schedules that leave little time for risk assessment and safety orientations

Ambiguity of responsibility for contractor training

Making orientation and training memorable

Ensuring knowledge of proper procedure reaches worker level

Inconsistent collection of KPIs for contractors

Lack of database to store information and analytics of contractors

Contractor safety management successes

Use of contractor prequalification services

Use of independent risk assessments

Structured processes for reviewing contractor safety plans

Additional touchpoints for contractor orientation

Verification of contractor certifications

Structured checklists to identify and record hazards

Registry of contractor performance

Evaluation forms that are completed and reviewed by safety personnel





Discussion and Future Directions

A point of discussion from the previous white paper that remains relevant for this one are the implications of reliance on third-party prequalification services. The heavy emphasis on lagging metrics, such as Experience Modification Rate (EMR) and Total Recordable Incident Rate (TRIR), to qualify for work on projects can lead to the issue of underreporting or suppression of statistics on the part of contractors. And as noted earlier, over time certain contractors have become savvier in navigating the algorithms of prequalification services, qualifying them for projects they would not have been awarded in the past.

It is noteworthy to add that third-party prequalification services only collect and review submitted information, and have the ability to build owner-specific questionnaires to address leading indicators and results from behavioral based safety observations. This allows for an increased focus on leading indicators. Additionally, the administrative burden surrounding contractor management is reduced by the use of third-party companies, allowing the owner to spend more time in face-to-face meetings with their contractors.

Since the publication of the previous research, it appears Institute members have made more strides in the formal evaluation of contractors after work has been completed. More members have formal methods for contractor evaluation using structured forms and templates that are reviewed by safety personnel. More members also have a system that's dedicated to recording contractor performance, the data from which is used when considering the same contractors for another project. Progressively, Institute members are even considering two-way evaluations, where contractor and owner evaluate each other, so both parties can improve.

Acknowledgements

The Campbell Institute would like to gratefully acknowledge the individuals who provided answers and feedback to contribute to this report:

Bryan Ambrose | EHS Leader & Global Contractor Safety Competency Leader, The Chemours Company

Richard Cerenzio | Senior Director, Corporate HSEQ, ISN

Steve Davis | Senior Director of EH&S, Day & Zimmermann

Tom Deem | Senior Leader – Environment, Health and Safety, The Boeing Company

Ray Duncan | Contractor Safety Services Manager, San Diego Gas & Electric

Nic Jones | Senior Manager – EHS Audit, Exelon Corporation

Jeffrey Price | Health Safety and Security Manager, The Mosaic Company

Dennis Vidmar | Senior Safety Consultant, Exxon Mobil Corporation

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