

EHS & Quality

Strategic Focus: Integrating Control Of Work Into The Contractor Management Life Cycle

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Organizations make the strategic decision to hire contractors for several reasons, including technical skills, project flexibility and cost savings. By doing so, firms can deliver large-scale projects quickly, without having to go through the extensive process of hiring more internal employees. However, contractors are usually unfamiliar with the organization's processes, employees and site-specific hazards. Although firms will have safety measures in place, contractors may require a more rigorous approach to EHS practices, especially if they are conducting technical and hazardous tasks. To address this, organizations implement control of work procedures to ensure hazardous work is completed safely and associated risks are mitigated appropriately. This report outlines how firms can integrate control of work software into various stages of the contractor management life cycle.

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Organizations mentioned

Avetta, Intelex, Yokogawa.

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Control of work supports firms in managing the complex task of overseeing contractor safety

In many industries, it is common to call on contractors to provide specialized expertise, flexibility, scalability, and a more economical option than hiring more full-time employees. However, contractors are new workers and therefore create a host of additional risks, which – if not addressed properly – may result in harm to both themselves and internal employees. Control of work is a system of processes that ensures work is conducted safely and the associated risks are handled appropriately. Recognizing how control of work can apply to contractor management, vendors are beginning to integrate contractor safety and control of work solutions, increasing visibility across operations and providing senior leaders with greater insight into workplace safety.

Control of work helps organizations proactively manage contractor safety

Although contractors provide a number of benefits, they also present risks that can lead to serious issues. Implementing control of work processes provides an extra layer of security to ensure that both contractors and internal employees are capable of completing their assigned tasks and are aware of the associated safety risks ahead of time. Specifically, control of work helps manage contractor safety by:

- **Ensuring all contractors possess the right safety and competency qualifications.**
As contractors are external entities, consisting of workers that are unknown to the hiring client, decision-makers need to ascertain whether the contracted workers possess the right qualifications to be on site and complete their assigned tasks. This is especially important when they will be performing hazardous tasks, such as confined space entry or hot work, where a lack of knowledge and training can increase the risk of severe incidents occurring. Standardized procedures, provided by control of work solutions, ensure that each contracted employee meets the necessary requirements before they are allowed site access. Specifically, a control of work system identifies whether the contracted workers possess the right qualifications and have completed the right training to perform their allocated tasks safely. This reduces the risk of contractors making mistakes that could lead to a serious safety incident.
- **Providing increased visibility into contractor and internal employee activity.**
It is challenging to track contracted workers' activity. For large-scale projects, hiring clients may use both contractors and subcontractors, and this increased number of external workers makes it difficult to identify who works on site and what role they are currently performing. If roles are not properly allocated, this can confuse internal employees, while EHS functions risk external workers ignoring safety protocols. Control of work provides the hiring client with increased visibility into the current and future activities of both contractors and subcontractors. This allows the hiring client to plan more effectively; scheduling, coordinating and monitoring actions to ensure appropriate task allocation for contractors.
- **Establishing an effective communication framework between contractors and employers.**
Control of work systems play an important role in creating an environment that encourages collaboration and coordination between employers and contracted workers. Constant communication between both parties helps to keep the hiring client and contractor on the same page and maintain the latter's awareness of their safety obligations while on site. This framework ensures that the client and contractor establish and follow key control of work measures – spanning training, hazard controls, personal protective equipment (PPE) and other job-specific precautions – before work begins. Implementing this collaborative framework is a key step in promoting effective contractor management and preventing injury and illness across the organization.



Control of work provides firms with increased visibility at each stage of the contractor life cycle

Control of work consists of three key elements: hazard identification and risk assessment; isolation management; and permit to work. All three play important roles at different stages along the contractor management life cycle (see **Figure 1**). Throughout the process, EHS functions can:

- **Leverage permit to work during the onboarding phase to assign the right contractors.**

Permit to work is a fundamental aspect of control of work systems, used to verify that any work conducted is safe and in line with regulatory standards. This means defining the task scope, assigning the personnel responsible based on their qualifications, and outlining the specific safety precautions needed. Activities that require specialized permits, for example, are hot work – which includes brazing, cutting or welding – and working at height. In terms of contractor management, permit to work forms part of the onboarding process, allowing decision-makers to select the most suitable contractors for specific tasks based on contractor credentials and permit details. This acts as a formal authorization for work to proceed in safe manner. Firms can further use these permits as a framework to monitor and assess activity, ensuring that it aligns with the prescribed safety conditions.

- **Conduct job hazard analysis (JHA) before contractors begin work to capture all risks.**

Job hazard analysis (JHA) is a process that identifies hazards by focusing on the task itself. Specifically, it breaks the job down into individual steps, identifies risks at each stage and then determines controls to help mitigate them. Regular JHAs enable EHS functions to understand where potential incidents can arise; determine their likelihood, severity and consequences to the organization; and implement actions to help mitigate them. While permit to work processes help identify severe risks, inconsistent JHA completion may miss many more minor risks. As contractors are new workers, they may not be aware of these low-level risks, which can exacerbate the threat and lead to a more serious incident. Throughout the onboarding process, firms can use JHAs to teach contractors about the hazards of each task and the countermeasures they should undertake.

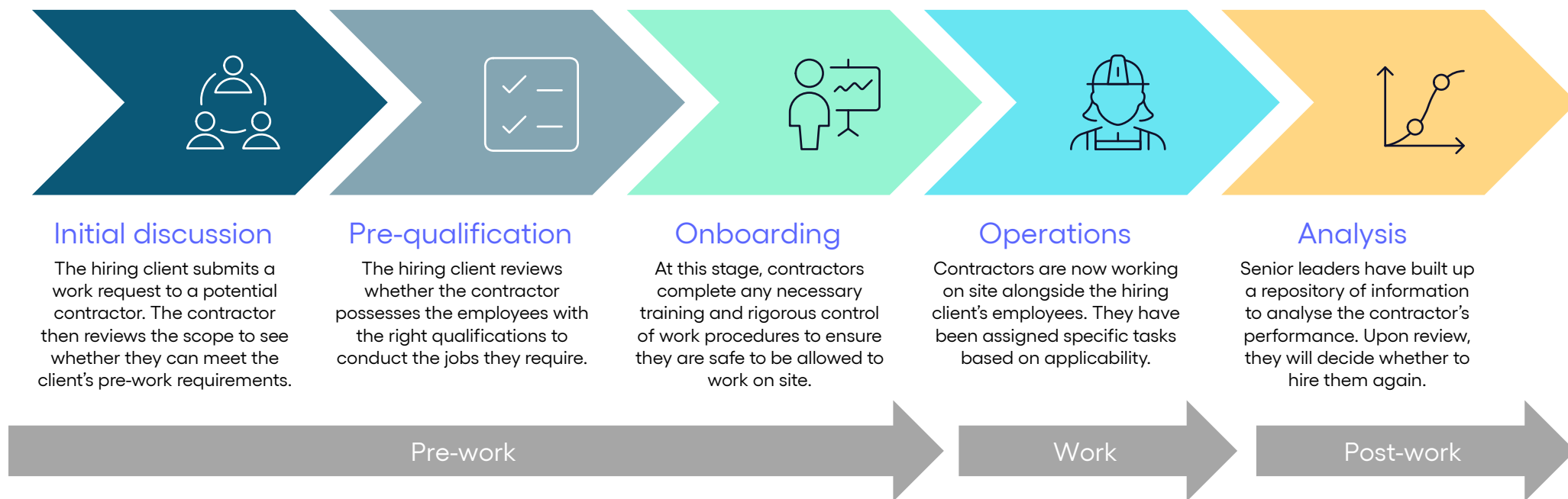
- **Manage isolations through lock-out tag-out (LOTO) functionality to speed up onboarding.**

Lock-out tag-out (LOTO) is a procedure that helps protect workers from unintentional exposure to hazardous energy from equipment that is being maintained or repaired. The procedure involves isolating the energy source by securing it with a padlock, and then using a tag to inform employees not to use the equipment. A clear LOTO procedure educates employees about the dangers that can arise from uncontrolled hazardous energy. Industries that deal with heavy machinery and equipment, such as construction and manufacturing, often rely heavily on contractors. Internal employees that regularly work on or near this machinery will be aware of the current status, but this may not be the case for contractors. Failure to highlight this information risks contractors using the isolated equipment. Implementing LOTO during the onboarding process ensures that contractors are aware of the machine's dangers and that it is out of bounds, ultimately eliminating the chance that they will try to operate it.



Figure 1

Where control of work fits into the contractor management life cycle



Source: Verdantix analysis



Vendors seek to integrate control of work and contractor management through technology

The benefits of implementing control of work into contractor safety management have encouraged software vendors to build both capabilities into their offerings. This includes both specialist control of work and contractor management vendors, as well as broader EHS platforms that are seeking to offer functionality across a wide range of capabilities. Current innovative tools include:

- **Mobile functionality to help accelerate control of work processes.**

Similar to other EHS modules, software vendors now provide mobile applications that support control of work processes. Users have the ability to create, review, approve and execute permit and isolation workflows. Before mobile devices, hiring clients would have to manually upload contractors into the system, which could be quite a cumbersome task and was therefore regularly overlooked. Now, mobile functionality enables contractors to act as fully named users in the control of work system and utilize the same capabilities across permit to work, JHAs and energy isolations as internal employees. For example, Intalex's offering allows contractors access to control of work documents and tasks, akin to an employee with limited access. In addition, they have access to the contractor portal, which provides permission for the mobile application, allowing contractors to conduct risk assessments in the field.

- **Integrations with third-party systems to ensure the right contractors are permitted access.**

When contractors enter a hiring client's worksite, it can take some time to familiarize themselves with their surroundings – they may, for example, mistakenly enter restricted areas, where only authorized personnel have access. To help manage this, control of work vendors, such as Yokogawa, have integrated their solutions with third-party systems such as turnstiles to allow only those with the necessary credentials to enter. Yokogawa equips its users with ID cards that contain their control of work data, precisely detailing their authorized actions. When arriving at a turnstile, workers must present their ID card to enter, preventing those not permitted from proceeding.

- **AI assistants to support users when completing control of work processes.**

Control of work processes like JHAs require granular detail to highlight as many potential hazards as possible, along with the necessary controls to mitigate them. For contractors, this level of detail is especially important, as their lack of familiarity with the worksite can make them susceptible to mistakes that turn hazards into incidents. To streamline this process, control of work provider Avetta has launched Ask Ava, an AI safety co-pilot that supports the user throughout workflows by providing recommendations. For example, when conducting a JHA during the pilot process, Ask Ava saw a 75% increase in the number of controls identified compared with what humans could provide.



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