

## Job Site Safety for Structural Engineers

By David J. Hatem, PC and Amanda Sirk, Esq.

Construction sites are filled with dangerous conditions. Typically, the general contractor, who controls the job site and the means and methods of construction, is responsible for job site safety. As project delivery methods combine and blur roles, the separation between a design firm's role related to job site safety and construction has also blurred. Any employer can be held responsible for dangerous conditions encountered by its own employees on a construction site. For example, an engineer may be held responsible for a job site accident if it assumed responsibility for supervision and/or control of the construction work and safety practices. In determining whether a design firm is liable for job site safety, Courts will examine the design firm's contractual obligations and limitations, the design firm's scope of services, and the design firm's behavior on the job site.

Congress enacted the Occupational Safety and Health Administration Act to ensure that employers provide employees with an environment free from recognized hazards and to prevent work-related accidents. The Act empowered the Occupational Safety and Health Administration (OSHA), an agency of the United States Department of Labor, to issue specific construction industry standards for workplace safety and health. The Secretary of Labor has the ability to enforce OSHA standards and issue citations to employers that fail to abide by such standards. OSHA has an independent Occupational Health and Safety Review Commission to review enforcement, and cases. OSHA regulations impose responsibility on several parties as follows: (i) the employer who creates the hazard; (ii) the employer responsible for safety conditions at the site by contract or through conduct; and (iii) the employer responsible for correcting the hazard.

Construction site accidents frequently lead to citations for violations of specific OSHA construction standards. OSHA has been especially aggressive in enforcing OSHA construction standards and citations against engineering firms with broad and daily responsibilities at the construction site (by contract or through conduct) after "high profile" accidents. OSHA citations are initially heard by an Administrative Law Judge. A party can appeal the Administrative Law Judge's decision with the OSHA Review Commission. A further appeal of the OSHA

Review Commission's decision can be filed with the federal appeals courts. Litigation can last for years during this appeal process and defense costs can be significant. OSHA fines, penalties and a substantial portion, if not all, of the litigation costs are typically not covered by a design firm's professional liability insurance. Therefore, understanding the nature of such liability is crucial for design firms to avoid OSHA fines and penalties.

OSHA has often attempted to broaden its reach to bring design professionals under the ambit of their regulations. In one case, Secretary of Labor v. Simpson, Gumpertz & Heger, Inc. (SGH), a structural engineer was cited for OSHA violations in relation to a collapsed metal deck. The project involved the construction of a laboratory building for a university. The university's prime architect hired SGH to perform structural engineering services in connection with the project. The building structure was to consist of five floors of poured concrete placed over a base of steel and temporary metal decking.

A specific area on floor 2 of the building was to be composed of metal decking, concrete, a layer of insulation, and a second layer of concrete topping ("the multi-layered area"). The general contractor began pouring the first layer of concrete in the multi-layered area. However, after the first layer of concrete was poured, the general contractor noticed that a section of the metal decking was beginning to sag. Concerned about the amount of deflection, the general contractor telephoned SGH. The general contractor explained to SGH that they planned to pour both layers of concrete in one day and remove temporary shoring under the first layer of the recently poured concrete deck. SGH did not object. After the general contractor poured the second layer of concrete in the multi-layered area, the metal decking could not support the weight of both layers of uncured concrete and collapsed, injuring five workers.

SGH had no employees at the construction site and its contract disclaimed responsibility for jobsite supervision. However, the Secretary of Labor issued an OSHA citation to SGH for failure to adequately shore a gravity load based on SGH's telephone conversation with the general contractor.

The Appeals Court, overturning the Secretary of Labor's decision, ruled that SGH

was not liable. The Court held that there was no contractual liability and that SGH had not exercised the necessary control at the jobsite to make it responsible for construction means, methods or safety. SGH employees were not on the jobsite on a daily or even weekly basis, and SGH did not have an office or a trailer at the construction site. On the date of the accident, there were no SGH employees on the site. When the telephone conversation took place between SGH and the general contractor regarding the metal decking, SGH was at its office offsite. Under these circumstances, the Court held that SGH did not have a duty under OSHA, and that SGH had not "substantially supervised" construction.

In another case, CH2M Hill was cited by OSHA following a methane gas explosion during a Milwaukee sewer system construction project. The project was part of a \$2.2 Billion pollution abatement program, and included the construction of eighty miles of sewer tunnels. CH2M Hill was the lead engineering consultant for the project. The contractor's methane monitor detected high methane gas levels and caused an immediate evacuation of the tunnel – but the contractor forgot to turn off the electrical power. Three supervisors returned to the tunnel a few minutes later and turned on a grout pump, igniting the methane gas and causing a powerful explosion. The explosion killed all three men. OSHA issued citations to CH2M Hill for willful violation of the OSHA construction standards for employers engaged in construction work. The Secretary of Labor and OSHA's Review Commission held that CH2M Hill, an engineering firm performing construction management services, was subject to OSHA regulations.

CH2M Hill argued that it had no contractual responsibility for construction means and methods, job site safety precautions, and had no authority to stop work on the project. The OSHA Review Commission noted that CH2M Hill had broad and comprehensive responsibility in many aspects of the project, including scheduling, coordination of construction activities, preparation and interpretation of the Contract Documents, claims processing and dispute resolution. The Review Commission announced a new test to determine whether a firm, like CH2M Hill, was substantially engaged in construction and

responsible for job site safety. The test stated that an architectural or engineering firm was engaged in construction work and subject to OSHA standards if it:

- 1) Possessed broad responsibilities in relation to construction activities, including both contractual and de facto authority over the work of the trade contractors; and,
- 2) Was directly and substantially engaged in activities that were integrally connected with safety issues, notwithstanding contract language expressly disclaiming safety responsibility.

After a decade long legal battle, the Court of Appeals overturned the Review Commission's decision. The Court held that CH2M Hill did not contractually or actually exercise authority and control over, or substantially engage in, construction or safety practices. The Appeals Court pointed out that the Review Commission had previously concluded that a "professional" employer is engaged in construction work only if the employer, either contractually or in actuality, had substantial control over the safety program, had the authority to stop work, or had substantial supervision over actual construction. CH2M Hill did not have any of these authorities.

In an effort to prevent future liability under OSHA, engineering firms should adhere to the following recommendations:


- Define your construction site and construction phase services to avoid inadvertently assuming responsibility for means and methods, construction supervision and/or site safety, especially if you are offering full time, resident or expanded site services.
- Include a provision in your contract that you are not responsible for construction means, methods and safety procedures. Make certain that your agreement does not give you the authority to stop work, perform construction supervision, or be responsible for job site safety or accidents.
- In-house training is important to train your employees to prevent blurring responsibility for construction means and methods and safety issues during the construction phase.
- Develop a field manual for your own project representatives that establish standard procedures to be followed if they observe an unsafe condition on a project site. If the condition poses no immediate hazard, then it should be reported in writing to the owner as soon as possible.
- Ensure that the client has a provision in the General Conditions to the

construction contract requiring the contractor to indemnify your firm and your sub-consultants for all claims arising from the performance of the contractor and its subcontractors.

- If danger to human life is imminent, your professional duty of care to protect the health and safety of the public requires that you take immediate action (i.e. alerting bystanders and/or contractors to leave an area if there is a nearby gas explosion or a collapsing building).▪




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