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FREEFORMING WITHOUT *the* TOOLING

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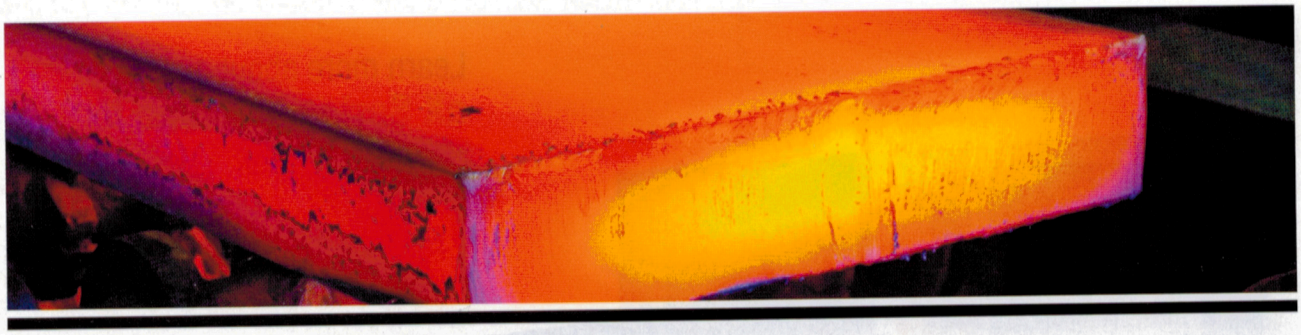

Secondary processes don't translate to secondary risks

Look to areas such as sample testing to reduce worker injury

Global demand for steel continues to increase, with mills and production facilities focused on production processes and ramping up output. With the urgency to increase production, however, risk of serious workplace injuries often is under-recognized in secondary processes—most notably, quality control testing operations.

Through our experience, we've identified simple and affordable steps mill management can take to reduce the incidence of major injuries and associated liabilities that occur at an inordinate rate in quality control testing processes of metals manufacturing.

A recent example took place at a steel mill that processes around 30,000 samples per year, operating a customized, decades-old conveyor system.

On the main production line at this mill, tail samples are cut from steel plate. The samples, slabs about 1 ½-in.-thick, 8-ft.-long and weighing more than a ton, are sidled to a conveyor system leading to the sample-burning room. There, the sample tail is cut into smaller pieces to be shipped to a lab for testing. Electronic and manual controls are in place to prevent slabs from posing a danger to workers. When the system operates as it should, samples are restrained by a series of gates, arriving at a final gate that secures the slab as a laser torch cuts the tail sample into pieces, each weighing about 500 lbs.

One day, the final metal gate remained shut as the penultimate gate opened, freeing the sample slab to collide with the sample still in the clutch of the final gate. The sample tail flipped into the air, striking a temporary employee before destroying the machinery's electronic control system.

A co-worker prevented further injury and damage by deactivating the equipment with a retrofitted electronic emergency override. Claims against the mill were resolved at significant financial expense.

What lessons can heavy industry draw from this incident to prevent similar events from occurring?

Immediately examine equipment involved in secondary processes—such as QC test sampling—and put requisite safeguards into place. It's common for management to concentrate on production line safety and operations. All the more reason to exhibit prudence by reviewing conditions in areas such as sample burning, and take steps such as safety engineering studies to identify issues and develop options to retrofit or augment existing safety devices.

For example, conveyor equipment in sample-burning lines often is customized, and can lack safety elements incorporated in standardized, production line equipment. In this case, an engineering study on the sample conveyor may have identified a safety retrofit as simple as horizontal spacers spanning across the conveyor to prevent a sample tail from careening off the conveyor.

Document safety or process improvements. Virtually every steel, metal or component manufacturing facility has old equipment in use. In most cases, it has been upgraded or retrofitted for operation with the safety of the worker and the workplace as priority concerns. We recognize that documentation on its own won't prevent injury.

At the same time, we've seen how dramatically lack of production environment safety retrofit documentations can impact the size of settlements and verdicts in manufacturing workplace personal injury cases. Safety retrofits have value in and of themselves. But strictly from a standpoint of managing financial risk, it's crucial to document safety retrofits, retain these documents indefinitely and maintain them in strict compliance with formal document destruction policies.

Review workforce management and training practices in "first assignment" areas such as test-sample burning. As with the case of our real-world example, secondary processes often are areas where less-experienced or temporary workers are first put to work in steel production facilities. Facility management is wise to recognize this as a potential risk, put in place precautions, staff these areas appropriately and sufficiently train inexperienced workers who may not be conscious of dangers inherent in quality control sampling. FFJ

Attorney Scott Brooksby specializes in workplace personal injury and product liability defense cases. He has extensive experience with major injury cases in heavy manufacturing operations.