

## **Case Study**

### *Industrial Sprinkler Design Protects Workers and Economic Stability*

#### **Business Interruption From Fire Can Impact Entire Community**

---

No business wants the complex ordeal of a long – or even brief – interruption because of a fire. Industrial fires especially can be devastating not only to a company but to the community providing its workforce. That was the case in 2000 in the part of northern Minnesota’s legendary mining region called “the Range.” One steel company suffered a multi-million-dollar fire that damaged its plant and caused a significant layoff of workers known as “Rangers.” Because of the fire, the economic impact on that particular community was felt by almost everyone.

When a nearby taconite plant looked at the sprinkler plans devised that same year by a sprinkler contractor to implement along its system of taconite conveyor belts, it found them unsatisfactory. The large conveyors regularly move fiery hot taconite pellets from one conveyor to another until they are finally loaded onto a ship. Taconite pellets, the building blocks of steel manufacturing, can catch fire easily, so the design integrity of any fire suppression system needs to be state of the art and comprehensive.

In an attempt to avoid the fate of its competitor, the large steel maker turned to Futrell Fire to review, redesign and complete the sprinkler system schematics for the conveyor belt operations. Futrell Fire’s experienced team analyzed the specific fire protection needs for the conveyors at the plant, the available water pressure for the appropriate sprinkler and fire suppression systems, and made its recommendations. Smart fire protection begins in the planning stages and helps ensure against a costly fire like the one its competitor experienced and the subsequent impact on the community.

“A good fire protection system using sprinklers in a large industrial plant is essential to protecting lives and jobs,” notes Philip Awker, Jr., Design Director at Futrell Fire. “Equipment like the conveyor belts can be easily replaced. But the time lost during a shutdown and how that affects the economy of a small town is much more difficult to reconcile.”

“Any smart business owner wants to minimize exposure to business loss interruption by having appropriate fire safety systems in their facilities, possibly with solutions that include a scope more than required by the minimum codes and standards,” Awker says. “Almost everything we do initially in a design review and redesign is driven by fire economics. You want to protect your workers and building, and you want to help guard against economic slowdowns. Both are the result of professional engineers – not contractors – doing expert fire suppression design, using an experienced team that understands the fire code and the subtleties of each facility in which they work.”

For the Rangers in northern Minnesota’s rich mineral region – and workers and business owners everywhere – that ought to be reassuring economic news conveyed with an abundance of fire safety and precaution.