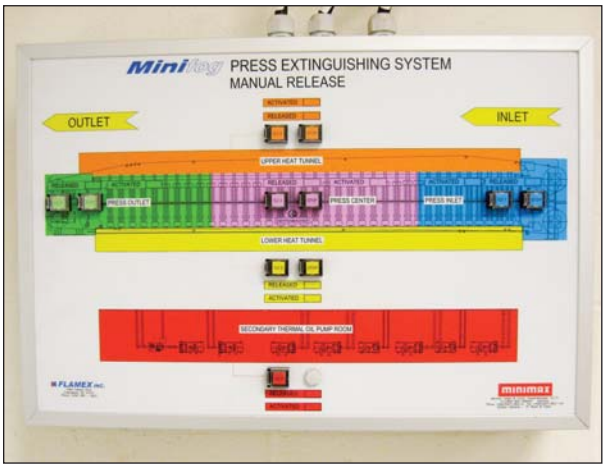
UNIBOARD MILL RELOCATION CONTINUES TO RELY ON FLAMEX FOR PROCESS FIRE PROTECTION

The fire protection requirements of a large wood composite board manufacturing facility are numerous and varied as many of the processes involved in the production have inherent risks for fires and explosions. Operations such as the size reduction and drying of wood fibers and chips in the fiber preparation stage are often conducive to the generation of sparks and fire. The pneumatic handling and storage of combustible wood dust have associated fire and explosion hazards that have long been recognized. In the pressing process, fires commonly result when combustible materials such as wood fibers, adhesives, and hydraulic, lubrication or thermal transfer oils deposit on the hot surface of the press during operation. Other causes of ignition such as metallic friction from moving parts, oil leaks and material blockage could also lead to a devastating fire on the press or in other production areas.

The high capitalization of equipment and high cost of unscheduled business interruption underscore the critical need for reliable and effective protection.

The Uniboard MDF facility in LaBaie, Quebec, which has relocated to Moncure, NC, had utilized the FLAMEX spark detection and extinguishing system to protect its pneumatic dust collection systems since 1997. When the plant equipment was moved to Moncure last year, most of the existing FLAMEX components were transferred for use at the new site. The immediate task for FLAMEX Inc. was to inspect and repair the spark detection and extinguishing system components for re-installation as well as to add new components to meet the larger requirements of the new facility.

In addition to the spark detection system requirements at the plant, a number of other process hazards needed to be addressed. The continuous press provided by Dieffenbacher represents the single largest capital investment in a piece of production equipment in the facility. Its continued functioning is crucial to the economic survival of the operation. Such presses can also be a difficult challenge in regards to fire protection. Consequently, plant management at Moncure invested in the MINIFOG press protection ystem. Other protection measures throughout the facility were also planned to protect personnel and to minimize equipment damage and downtime.



Press extinguishment system

Valve house

Uniboard plant started up in February.

Under the direction of Alain Barbe, Head Office Project & Maintenance Manager, the management team at Uniboard worked with FLAMEX Inc. to design various automatic systems to address the plant's process fire protection needs. "Knowing the capability of the FLAMEX systems in different fire protection applications, we decided to keep the existing system from LaBaie and to incorporate additional aspects of fire protection for the plant into the FLAMEX control panel," Barbe comments. "Together with the FLAMEX team, our vendors and programmers, we designed an equipment fire protection system based on detection, extinguishing, aborting, deluge and interlocking actions to provide a safe operation and controlled stop sequence in the case of an event."

The protection systems provided and installed by FLAMEX Inc. at Moncure include:

- the MINIFOG fine water spray system for protection of the press
- the FLAMEX spark detection and extinguishing system for the prevention of fires and explosions in the pneumatic handling and air filtration systems
- water deluge systems using MINIMAX and Viking deluge valve stations for the baghouses, cyclones, silos, press exhaust ducting, forming bin and other high risk areas
- flame and smoke detection of critical areas and processes
- MINIMAX foam system with FM approved 3% proportioning pump to protect the thermal oil room, hydraulic room and press pit

In addition, FLAMEX assisted the plant by also supplying and installing required associated environmental protection for the fire protection equipment such as heat tracing on exposed water piping and valve houses for the deluge valve stations/manifolds. The valve houses were constructed complete with lighting, heating, service receptacle, air compressor and low temperature monitoring.

"FLAMEX provided us a complete turnkey system from engineering to startup according to regulation and in accordance with the needs of the project and process," states Barbe. "I would like to thank the FLAMEX team for their support with special thanks to the Project Manager, Ed Pridgen, for his dedication in all aspects of the project."

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