

Document Health and Safety	Published 08/01/2015	Valid for Escanaba Mill
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Fire Protection System Impairment Policy

Purpose:

The purpose of this policy is to comply with property conservation guiding principles established by the Escanaba Mill and its insurer FM Global. This policy sets forth requirements for managing fire protection system impairments. A form has been developed in order to document the process and comply with the existing requirements. The form is completed by the Loss Prevention Department and notification is made to all other Loss Prevention Officers who are on duty.

Scope:

It is the policy of the Escanaba Mill that fire protection systems will be maintained in a state of readiness, and that priority will be given to minimize all potentials for serious fire due to inoperable or impaired equipment.

Red Tag Permit: A permit system provided by FM Global (property insurance carrier) that is uniquely used for management of fire system impairments.

Execution:

1. All fire protection system water control valves that are locked will be under the exclusive control of the fire suppression officer or Loss Prevention as directed by Health and Safety.
2. Fire protection impairments will be corrected on a priority basis.
3. Whenever possible, plan fire protection system and equipment impairments in advance to allow appropriate planning and alternative options to be evaluated. The following must be done to minimize the duration and extent of an impairment:
 - Ensure pre-approval of piping or system modifications with approval by Health and Safety, and Factory Mutual
 - Planned work done during non-operating periods, if possible
 - Shut down hazardous operations (i.e. hot work)
 - Reduce area of impaired protection by alternate arrangements
 - Ensure that required equipment, materials and personnel are available prior to taking a system out of service
 - Pre-fabricate replacement/repair materials, to the extent possible

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All efforts will be made to restore protection during the shift that the impairment is initiated.

While the fire system is impaired, all cutting and welding in the affected area will be required to have a cutting and welding permit and will maintain a fire watch. Only hot work that is absolutely necessary will be allowed until the system is restored. This work will be treated as a high hazard area with additional extinguishers or charged hose lines available.

A. Planned Fire System Impairment Procedures

1. Water Supply Valves

- a. **Planned impairments to fire system water supply valves will be managed according to the procedures found in Attachment A**, with Loss Prevention officers having primary responsibility for compliance.
- b. Operations, maintenance and contract personnel will adhere and follow the procedures in Attachment A, including support and interaction with Loss Prevention to assure proper management of impairments.

2. Other Than Water Supply Valves

Impairments to other fire protection equipment will be managed per the procedures outlined in Attachment A, although all steps listed may not apply. An Impairment Sheet will be completed at the front gate, at a minimum. Discussion will occur between Loss Prevention and affected areas. FM Global will be notified, precautions taken, and actions documented.

B. Emergency Impairments

1. **Loss Prevention has the authority to isolate or shut down a fire protection system to limit damage when an emergency situation exists.** Notification and communication to operations, maintenance and FM Global will occur after action has been taken.
2. Restoration of protection will be according to procedures outlined in Attachment A.

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RESPONSIBILITIES

- A. Loss Prevention is responsible for fire system control and managing fire protection impairments, implementation and distribution of the Impairment program, and recordkeeping and notification under the direction of Health and Safety.
- B. Operating departments are responsible for assuring that appropriate precautions are taken in the event that a sprinkler system or other fire protection system is impaired in their area.
- C. Maintenance, engineers and contractors are responsible for assuring that prior planning is conducted before requesting any isolation of a fire protection system during non-emergency conditions. This includes reviewing the work in advance with Plant Protection and Health and Safety.
- D. Operations and maintenance departments are responsible for providing appropriate resources to ensure that fire systems are restored to full service as soon as practical when an impairment occurs.
- E. Health and Safety has overall responsibility for managing and directing impairments on the fire protection systems.

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Attachment A Fire Protection Impairment Procedures

System or Valve Closure: Contact Plant Protection/Security when a fire system valve is requested to be closed. (Ext. 2676). Loss Prevention will do the following:

1. Prepare a Impairment Sheet with the appropriate system, location and personnel information
2. Contact the Area Production Shift Manager and/or Operations Maintenance Coordinator to review current area status (especially any hot work permits issued) and discuss precaution measures. If a hot work permit has been issued, make sure that hot work is discontinued, unless emergency conditions warrant.
 - When Riser 13 (#10 Recovery Boiler emergency back-up water) or sectional valves interrupting the flow of water to Riser 13 require closure, the Boiler Control Room must be notified.
3. Contact the individual/supervisor who will be conducting work on the fire system or equipment to be taken out of service. **Loss Prevention and the individual/supervisor conducting or overseeing the work must meet at the control valve location when the closure occurs.**
4. Unlock the system and close the valve. Count the number of turns to close the valve, and document by contacting the Front Gate. Do not lock the valve closed.
5. Open drain(s) or hydrants on system and verify that pressure has been isolated.
6. Attach the fire protection "OUT OF SERVICE TAG" on the valve that was closed. **Ensure that there is a discussion between Loss Prevention and the individual/supervisor performing work on the responsibilities for immediate notification in the event of emergency, the tag as the lockout device, and notification upon completion of work.**
7. Notify the Area Production Shift Manager and/or Operations Maintenance Coordinator as to the system closure and remind them of the following:



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- Hot work not allowed unless previously authorized or emergency dictates
 - No smoking allowed in area as per the mill's no smoking policy
 - Additional rounds/awareness for fire watch
8. Notify Factory Mutual Insurance by phone (800) 411-3929 as to the system closure. Be prepared to give the following information:
 - Factory Mutual Index No. 59725.1
 - Building/Area involved
 - System number
 - Approximate length of time that system to be down
 - Reason for closure
 9. Document closure on the Valve Closure Sheet and post it at the Front Gate.
 10. Document the system impairment in the Permanent log book at the Front Gate.

Attachment A Fire Protection Impairment Procedures

Reopening Valve/Restore to Service: Contact Loss Prevention immediately after work is completed and the valve is ready to be opened. Loss Prevention will do the following:

1. Verify that all system piping and components are in place.
2. Close any drains or hydrants as needed to allow system to be returned to service.
3. Reopen the valve, counting the number of turns to reopen and call in to front gate, asking for verification of a water flow alarm and/or fire pump running.
4. Place fire protection chain and lock on valve, locking it in the OPEN position
5. Conduct a 2 in. main drain test to verify valve position
6. Remove the fire protection "OUT OF SERVICE TAG" on the valve that was closed and return it to Loss Prevention
7. Notify the Area Production Shift Manager and/or Operations Maintenance Coordinator as to the system status.
8. Notify FM Global Insurance by phone (800) 411-3929 as to the system status. Be prepared to give the following information:
 - Factory Mutual Index No. 59725.10
 - Building involved
 - System Number and that the system has restored and is locked in the open position.
9. Remove and complete the posted Valve Closure Sheet and give to the Fire Suppression Spec.
10. Document system status in the Permanent Log book.



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