



U. S. Chemical Safety and Hazard Investigation Board RECOMMENDATIONS STATUS CHANGE SUMMARY

Report:	Xcel Energy Hydroelectric Plant Penstock Fire
Recommendation Number:	2008-01-I-CO-R8
Date Issued:	August 23, 2010
Recipient:	Xcel Energy. Inc.
New Status:	Closed – Acceptable Action
Date of Status Change:	March 1, 2017

Recommendation Text:

Revise your policies for solicitation and procurement of construction service to

- a. Ensure that requests for proposals (RFPs) and selection processes include criteria and procedures for prequalifying or disqualifying contractors based on specific safety performance measures and qualifications.*
- b. Implement written verification procedures for the safety information and documentation submitted by contractors during the bidding and selection process.*

Board Status Change Decision:

A. Rationale for Recommendation

On October 2, 2007, five contract workers were killed and three others were injured when a flash fire erupted inside a drained penstock at the Xcel Energy, Inc. Cabin Creek hydroelectric power plant in Georgetown, Colorado. The fire, which trapped the fatally injured workers deep underground, resulted from the ignition of methyl ethyl ketone; a flammable solvent being used by the workers to clean spraying equipment. The spraying equipment was unsuccessfully employed by the workers to apply a protective epoxy coating to the interior walls of the penstock. Attempts made by local volunteer firefighters to rescue the trapped workers were unsuccessful. RPI Coating was the contractor selected by Xcel to perform the coating work inside the penstock. RPI was selected for the job based on its low bid. RPI had a poor safety record, which included injuries, fatalities, and numerous OSHA violations on past jobs performed by the company.

As a part of its investigation, the CSB examined Xcel Energy's contractor procurement and safety oversight policies, incident investigation policies, and confined space entry program. The CSB concluded that Xcel Energy's corporate policies for solicitation and procurement of construction service contractors allowed contractors with poor safety records to compete for contracts. Moreover, Xcel provided insufficient oversight to ensure that the contractor followed safe work practices while conducting the hazardous recoating work within the penstock at the Cabin Creek facility. The CSB issued recommendations to remedy these deficiencies. This status change summary only addresses the recommendation pertaining to Xcel's selection of contractors (2008-01-I-CO-R8).

B. Response to the Recommendation

Xcel revised its Contractor Safety Program in June of 2010 to require that the following specific safety performance measures be used for prequalifying or disqualifying contractors wishing to bid on projects and other work at Xcel facilities:

- Contractor's injury/illness history for the past five years, including their Experience Modification Rate (EMR).¹
- Total OSHA recordable incident rate and DART² rate (as compared to industry averages), fatalities, and OSHA violations.

As long as the information submitted meets all the specified safety performance criteria in the policy, the contractor is prequalified to bid on the project, or may be selected to perform other work. If any one of the above-listed performance criteria is not met, a secondary review is conducted by Xcel Energy's Contractor Safety Department.

A separate document approved in June 2010 provides procedures for conducting secondary reviews of contractors who do not meet the specified safety performance criteria. It contains specific safety performance criteria (e.g., OSHA 300 Log Review, OSHA Rates, EMR Rates, Safety Performance Trend, OSHA citation history) for determining whether a contractor will be approved with conditions relative to the contractor's safety performance or scope of work or disapproved. These procedures also outline steps for verifying the data obtained, such as comparing the company's submitted OSHA citation history against the data on the OSHA web site.

In 2011, Xcel Energy reported to CSB that it had evaluated 1,657 contractors according to these procedures and conducted 706 secondary reviews. Representative examples of initial and secondary reviews were provided.

C. Board Analysis and Decision

As the information submitted by Xcel Energy regarding its revised contractor selection process meets the intent of Recommendation No. 2008-01-I-CO-R8, the Board voted to change the status of this recommendation to: "**Closed—Acceptable Action.**" The Board encourages Xcel to track information on rejected versus accepted contractors going forward.

¹ Experience Modification Rate (EMR) is used by the U.S. insurance industry to determine premiums for workers' compensation insurance. An EMR less than 1.0 indicates above-average injury and illness performance, while an EMR greater than 1.0 indicates below-average performance

² DART is an acronym for Days Away, Restricted work, or Transfer to another job