



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

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| Report: | Xcel Energy Company Hydroelectric Tunnel Fire |
| Recommendation Number: | 2008-01-I-CO-R18 |
| Date Issued: | August 25, 2010 |
| Recipient: | Southern California Painting and Drywall Industries Joint Apprenticeship and Training (SCPDI-JAT) Committee |
| New Status: | Closed – Acceptable Action |
| Date of Status Change: | July 17, 2018 |

Recommendation Text:

Require that all journeyman painters who are employees and/or members have received safety training equivalent in content to that covered in the Joint Apprenticeship program. At a minimum, address confined space safety, safe handling of flammables, emergency response and rescue, and fire prevention.

Board Status Change Decision:

A. Rationale for Recommendation

On October 2, 2007, five contract workers from RPI Coating, Inc. 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.

As a part of its investigation, the U.S. Chemical Safety and Hazard Investigation Board (CSB) examined the training provided to the RPI workers on flammables and confined space entry by the training center run by the Southern California Painting and Drywall Industries Joint Apprenticeship and Training (SCPDI-JAT) Committee. The SCPDI-JAT training center was created as a result of a Master Labor Agreement between the Painters and Allied Trades Union, District Council 36 in Southern California (i.e., where RPI has its home office), and several participating multi-employer associations. The training center provides apprenticeship training programs for beginners in the industrial painting trade. Integrated with this apprenticeship training are a number of critical safety course topics.

None of the 14 RPI employees working on the Xcel penstock project were graduates of this program. Only two were referred to the training center by RPI and had skill levels at or above a mid-level apprentice, so they were not required to take the basic painting level courses that included much of the in-depth safety training. An SCPDI-JAT trainer did travel to the Xcel Cabin Creek site in Georgetown, CO, to provide basic OSHA-required continuing education/refresher training to the work crew that covered six topics in six hours.

The CSB concluded that the RPI work crew received inadequate training on the specific and unique hazards of the penstock, including the safe handling of flammables, proper and safe use of spray equipment in a confined space, fire prevention and mitigation, emergency response and rescue awareness.

The CSB also concluded that the crew's knowledge and skills pertaining to safety were not assessed by SCPDI-JAT as a part of their training.

Therefore, the Board voted to recommend training course and skill evaluation enhancements to the SCPDI-JAT Committee. This status change summary addresses only the training course enhancements contained in CSB Recommendation No. 2008-01-I-CO-R18. The status of the second recommendation (e.g., 2008-01-I-CO-R19), which was issued to the SCPDI-JAT Committee to “[i]nclude a safety knowledge and skills component to your journeyman and apprentice evaluation criteria,” was voted as a “Closed – Acceptable Action” by the Board (Notation Item: 2013-23) on February 14, 2013.

B. Response to the Recommendation

In February of 2011, the SCPDI-JAT training center began offering a “Confined Space for Journeyman Upgrade,” and offers OSHA 30-hour courses for journeymen that include “Safe Handling of Flammables and Fire Protection.” The OSHA 30-hour courses¹ also provide a general overview of emergency response /rescue. The content of these courses was supplied to the CSB for review and found to meet the intent of the Recommendation. SCPDI-JAT reported that approximately 45% of journeymen painters had taken advantage of these courses offered by the Center between June 2011 and June 2012. SCPDI-JAT explained that these courses are not mandatory for journeymen as this is a matter for collective bargaining. Under the current master labor agreement, journeymen are required to select and complete a minimum of 16 hours of continuing education/training selected from a list of the OSHA required classes. However, the Center has developed a procedure for asking a journeyman about what previous safety training he/she has and then directing him/her to appropriate safety training courses provided by the Center for continuing education.

In April of 2018, the SCPDI-JAT reported to the CSB that an additional 1,462 District 36 members have received confined space training since its last response, and that that 790 of those trained were journeymen, which equates to approximately 80% of current journeymen having received this training.

C. Board Analysis and Decision

As the SCPDI-JAT has trained 80% of its current journeyman painters, despite the limitations imposed by the non-mandatory training requirements for journeymen in its Master Labor Agreement, and continues to proceed toward 100%, and as recommendation is nearly eight years old, the Board voted to change the status of CSB Recommendation No. 2008-01-I-CO-R18 to: “Closed – Acceptable Action.”

¹ OSHA 30-hour courses provide outreach training for workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces. The training is delivered by OSHA-authorized trainers, according to program guidance provided by OSHA.