

This document is in response to KTA-Tator’s Petition for Correction [Attachment-1] of the CSB’s final investigation report of the Xcel Energy hydroelectric plant penstock fire.

The CSB finds it interesting that a company that received no recommendations for safety improvement, nor was included in any key finding or root/contributing cause in the report, would raise issues of factual inaccuracies. The petitioner, in fact, was only mentioned by name in the report on 21 of 180 pages [Attachment-2]. However, the CSB has responded to the main concerns expressed within the petition.

Each issue identified in the petition is addressed in the order it was raised within the document, by petition subheading. CSB response is in **bold**.

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I. Pertinent Factual Background

**The CSB’s description of KTA’s role in the penstock project (section 3.2 of CSB’s report) accurately reflects the information provided by KTA in this section of its petition. Therefore, it is unclear what, if any, issues KTA is raising in this section that it feels the report did not address correctly.**

II. Facts Pertaining to the Scope of KTA’s Role on the Project

KTA raises the issue that the company provided quality assurance, not quality control (as is referenced in section 3.2 of the CSB report).

**Multiple evidentiary records, including KTA-Tator Daily Inspection reports, state that “quality control” activities were being conducted by KTA personnel of the penstock and that copies of the inspection reports were submitted to the “client” (i.e. Xcel Energy) [see Attachment-3]. Additionally, the Xcel Project Manager of the penstock reline project and the Xcel Site Manager of Cabin Creek identified KTA’s work in the penstock as “quality control” in their interviews with the CSB.**

KTA states that it was not delegated by Xcel the responsibility of providing rules for worksite safety or for governing the safety practices of the general contractor [RPI]. It quotes the Safety Addendum added to RPI’s contract to assert that safety responsibility lied solely with RPI and Xcel.

**Nowhere in the report does CSB suggest that the Safety Addendum added to RPI’s contract by Xcel was directed at KTA’s employees working on the penstock project, as implied by KTA (p.2, paragraph 4). However, the penstock work proposal submitted to Xcel by KTA, “Proposal PN050890 - Coating Assessment and Engineering Services for Penstock Re-Lining,” states that KTA will, as part of Phase 1 of the project, “prepare a comprehensive technical specification for all required coatings work” and that the specification will include, among other items, “safety and health requirements” [see Attachment-4, p.3]. As part of Phase 2, KTA will “identify additional safety and environmental concerns” during a pre-bid walk-through with bidders for the penstock recoating work, and the information collected during this walk-through will be “published to the contractors and will**

**supplement the specifications.” [Attachment-4, p.3] Thus, KTA’s contract with Xcel for the penstock project did, indeed, have safety components.**

KTA states that it had not conducted any quality assurance observations relative to coatings application prior to leaving the penstock at 1:10 pm on the date of the accident.

**KTA coatings specialist, John Carver Jr., identified on a KTA Daily Painting Inspection Report for October 2, 2007 (the day of the incident) the degree of cleanliness and the surface profile of the penstock interior to which the epoxy coating was to be applied that day [see previously referenced Attachment-3].**

III. The CSB’s Conclusion Regarding the Applicability of 29 CFR 1910.146

KTA states that KTA never ‘recognized’ the Cabin Creek penstock as a permit-required confined space, but that KTA merely indicated the penstock was such a space on its Pre-Job Hazard Assessment “in order to take the most conservative approach with regard to the work to be performed” and that “KTA included the [permit-required confined space standard] in the project specification to become a contractual obligation of the contractor hired to perform the work.” (p.3, paragraph 3)

**The fact that KTA indicated on its Pre-Job Hazard Assessment documentation that the penstock was a permit-required confined space speaks for itself and demonstrates a recognition of the hazard or the potential for the hazard.**

KTA states that CSB’s analysis of “Applicable OSHA Confined Space Standards” is flawed because the work conducted in the penstock was ‘construction,’ which is excluded from 1910. KTA states that CSB should have directed its recommendation to OSHA to issue a comprehensive standard for construction confined spaces, which has been on OSHA’s regulatory agenda “for years”. (p. 3-4)

**As part of its investigation of the Xcel Cabin Creek penstock fire, the CSB concluded that the general industry standard (1910), not the construction standard (1926), applies to the penstock relining project. We explain our interpretation as follows in Appendix H of the CSB report: “Although the contractor (RPI) was using construction practices (e.g., sandblasting and coating) to physically change the power plant, the penstock was existing equipment (constructed in 1967) that was being refurbished by removing the old coating and applying new. Consequently, this work activity is classified as maintenance rather than new construction and falls under the OSHA general industry standards.” (p.175). Work is classified by the totality of the task, not the individual specific activities that make up the task. OSHA agreed with the CSB interpretation, citing Xcel, RPI, and KTA Tator under 1910, not 1926. Additionally, the services agreement under which Xcel and RPI signed for the penstock relining project was a “Maintenance, Repair, and Operations Services Agreement” (emphasis added by CSB).**

IV. Material Facts Pertaining to KTA’s Internal Pre-Job Hazard Assessment Form

KTA states that the pre-job hazard assessment [PJHA] form is an “**internal-only** KTA form that is completed by the on-site coatings inspector and forwarded to KTA’s *project manager only*. The PJHA was **never** provided to RPI or Xcel. (emphasis in original, p.5, paragraph 1)

**The CSB has testimony and communications indicating that there were safety discussions between Xcel, RPI, and KTA on a number of topics that included issues raised in the pre-job hazard assessment. Moreover, the “Surface Preparation and Relining of Cabin Creek Interior Penstock,” document developed by KTA and submitted to Xcel for the penstock relining project, recognizes that thinners and solvents would be stored on site and used in the reline project, that solvents and thinners must be stored in appropriate containers, that MSDSs must be maintained for all materials, and that proper ventilation must be utilized in the work area to prevent injury to the workers and the accumulation of volatile gases. That same document goes on to state that personnel must be equipped with the appropriate clothing, including non-sparking soled shoes, and that contractors must provide explosion-proof lighting, fans, pumps, sprayers, flashlights, etc., in all painting and curing areas.**

**Additionally, all companies that have employees entering a permit required confined space to perform work are required to inform the host employer (Xcel) of any hazards. Therefore, the CSB is surprised to learn that it is KTA’s position that it did not share its assessment of the hazards as required by OSHA’s general industry standard, Permit Required Confined Spaces Rule [1910.146(c)9(III)].**

KTA states that the PJHA is a communication tool “so that KTA is aware of the hazards our employees are exposed to”... “for the inspector’s own personal health and safety,” and that KTA is not under “any obligation to share this report with the other contractors or their employees.”

**The CSB finds it alarming that KTA would recognize hazards within the workplace but would not ensure that all individuals entering the hazardous space are aware of those hazards and are taking precautions to avoid injury or incidents. Be that as it may, the penstock work proposal submitted to Xcel by KTA, “Proposal PN050890 - Coating Assessment and Engineering Services for Penstock Re-Lining,” states that KTA will, as part of Phase 1 of the project, “prepare a comprehensive technical specification for all required coatings work” and that the specification will include, among other items, “safety and health requirements” [see previously referenced Attachment-4, p.3]. As part of Phase 2, KTA will “identify additional safety and environmental concerns” during a pre-bid walk-through with bidders for the penstock recoating work, and the information collected during this walk-through will be “published to the contractors and will supplement the specifications” [Attachment-4, p.3]. Thus, KTA’s contract with Xcel for the penstock project did, indeed, have safety components.**

KTA states that the inspector’s checking off of the box next to “use of solvents, paints, abrasives, etc.” indicates only that he recognized the need for eye protection, not that solvents were to be used in the space. Further, KTA states that the inspector noted the need for eye protection for the abrasive blasting portion of the work, not the coating (solvent-using) portion, which had not started when the PJHA was conducted. (p.5, paragraph 4)

**KTA was aware that after blasting, coating would begin (as KTA was the responsible party for inspecting the coating work). It is not persuasive that KTA only checked off on the box on the use of solvents to indicate the need for eye protection, as referenced in detail above. KTA Tator itself developed the “Surface Preparation and Relining of Cabin Creek Interior Penstock,” warning against the hazard of the accumulation of volatile gases and the need for adequate ventilation.**

KTA states that when the inspector indicated that the space was a permit-required confined space, that the inspector was required to take actions “in accordance with the controlling employer’s entry procedures,” with the controlling employer not being KTA. The company states that KTA was under “no obligation (regulatory or contractual) to develop said procedures. Our inspector’s obligation was to be aware of and conform to the –controlling employer’s entry procedures.”

**While the host company (or controlling employer) has the responsibility of developing permit-required confined space entry procedures, all companies that have employees entering the confined space are required to ensure that those procedures are in place to protect their employees. The CSB is very concerned that KTA would allow its employees to enter a permit-required confined space even if the “controlling employer” did not take the steps necessary to ensure the KTA employee’s safety. Be that as it may, the CSB stated on page 32 of its report that “Despite these [permit required confined space] requirements, entry procedures were not developed...”; the CSB did not indicate that KTA was the primary party responsible for the development of such procedures.**

V. Material Facts Pertaining to KTA’s Internal Task Summary Coating Observation Hold Points Form

KTA states that the “Task Summary Coating Observation Hold Points” form is an internal-only KTA form.

**The CSB report does not assert that a copy of the “Task Summary Coating Observation Hold Points” document was provided to Xcel or any other party involved in the Cabin Creek relining project.**

KTA states that within the Hold Points form in both the *Coating Materials, Mixing and Pre-Application* section and the *Coating Material Requirements* section, that the coating inspector “identified ‘None’ with respect to whether ‘Thinning’ was allowed.” (p.6, paragraph 3)

**The Hold Points form indicates that thinner is to be used, as the inspector checked off the Points specifically referencing thinner in the *Coating Materials, Mixing and Pre-Application* section as applicable, and it references the thinner type by its product data sheet (PDS). The form does not indicate “none” in relationship to thinner amount, but rather, in the column that “none” appears is the Test Method column for the Thinner Amount line item [see Attachment-5].**

KTA states that the Hold Points form is not an “inspection” document and is completed “solely upon a review of the written project technical specifications.”

**The Hold Points document that KTA references states verbatim “Hold Points Inspection” and then lists a number of items that were inspected and noted on by the KTA inspector [see Attachment-5].**

VI. Material Facts Pertaining to KTA’s Pre-Construction Activities

KTA states that “KTA’s input was expressly limited to issues relating to technical aspects related to surface preparation and coatings application, not the means and methods of construction, and specifically not health and safety.” (p.7, paragraph 3)

**As stated previously, the penstock work proposal submitted to Xcel by KTA, “Proposal PN050890 - Coating Assessment and Engineering Services for Penstock Re-Lining,” states that KTA will, as part of Phase 1 of the project, “prepare a comprehensive technical specification for all required coatings work” and that the specification will include, among other items, “safety and health requirements” [Attachment-4, p.3]. As part of Phase 2, KTA will “identify additional safety and environmental concerns” during a pre-bid walk-through with bidders for the penstock recoating work, and the information collected during this walk-through will be “published to the contractors and will supplement the specifications” [Attachment-4, p.3]. Thus, KTA’s contract with Xcel for the penstock project did, indeed, have safety components.**

VII. Material Facts Pertaining to KTA’s Knowledge Regarding RPI’s Decision to Use MEK

KTA states that it did not prepare the “Surface Preparation and Repainting of Interior of the Cabin Creek Penstock” document referenced in the CSB report, section 6.5.1.1; the company states that it “is not familiar with the document title identified by the CSB.” (p.8, paragraph 1)

**The CSB has an email transmission of the document entitled “Surface Preparation and Repainting of Interior of the Cabin Creek Penstock” from KTA Senior Consultant, Ray Tombaugh, to Xcel personnel, dated March 7 and 12, 2007 [see Attachment-6]. Mr. Tombaugh states that the document was prepared by KTA for Xcel.**

KTA states that the coating specification was prepared months prior to the actual construction project and could in no way be used to demonstrate “some clairvoyant knowledge that MEK would be used.” (p. 8, paragraph 20)

**KTA’s involvement in the penstock project extended from the time its professional services agreement contract was signed on January 12, 2007 until the date of the incident, October 2, 2007. While the specifications may have been developed prior to award of the coating contract to RPI, KTA’s contract stipulated that, as part of Phase 2, KTA will “identify additional safety and environmental concerns” during a pre-bid walk-through with bidders for the penstock recoating work, and the information collected during this walk-through will be “published to the contractors and will supplement the specifications.” The bidders, as part of the bidding process, provided information on the equipment and products they would use to recoat the penstock. This was a missed opportunity to identify the hazards associated with using a solvent within the confined space.**

KTA denies that its Technical Coating Specification states anywhere that solvent would be used in the penstock; KTA references Section 3.04.B (titled “Surface Preparation – Solvent Cleaning”) where the Specification discusses the use of a degreasing solution and clean water to clean oil or greasy surfaces, if any exist within the penstock. The company states that using MEK would have been precluded as MEK is an organic solvent that could not be rinsed with water.

**The title alone of the section implies the possibility of solvent use in the cleaning of the penstock surface.**

KTA states the KTA prohibited the use of sand as an abrasive for the penstock project, yet the CSB refers to “sandblasting” throughout its entire investigative report.

**The CSB typically incorporates industry jargon or phraseology of the workers involved in the incident (with definitions where needed), so that when those workers (and their equivalents in the industry) read the CSB report, they have a clear understanding of the information we are communicating. “Sandblasting” is a phrase utilized by the RPI work crew when they described the activity of removing the old liner from the penstock interior; thus, this phrase of “sandblasting” was utilized in the report. The same explanation goes for the use of “spray wands”; both “spray wands” and “spray guns” were utilized interchangeably by industrial coating workers throughout our investigation.**

VIII. When KTA’s Inspector was On Site

KTA states that p.133 of the CSB report is inaccurate because the company feels the report alludes to entry by KTA personnel between September 11 and 20; KTA states that the inspector did not begin working on site until September 21.

**Page 133 of the report is part of Appendix A – Incident Timeline. The CSB lumped the time frame of September 11 until October 2 into one space, with the following description: “A number of confined space entry permits and air monitoring logs are completed by RPI that indicate that continuous air monitoring is required inside the penstock. Logs reveal that KTA-Tator and Xcel employees entered the penstock on several occasions to inspect and/or review RPI Coating’s work progress.”**

**The CSB is not asserting that KTA was present and entered the penstock each and every day through the period of time identified. As is written, the CSB is noting that KTA made entry on multiple occasions during this time frame of September 11 until October 2, which is factual and accurate.**