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RE California Title 24, part 6 energy code development for steam trap FDD

Additional submitted attachment is included below.

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December 4, 2020

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: 2022 Energy Code Pre-Rulemaking

To whom it may concern:

I am writing today on behalf of Armstrong International, to offer commentary and recommendations concerning the California Energy Commission's efforts to update the California Energy Code (Title 24, Part 6) to include new requirements or to upgrade existing requirements for various technologies.

First, as a 120-year old company whose mission is to deliver intelligent system solutions that improve utility performance, lower energy consumption and reduce environmental emissions while providing an enjoyable experience, we applaud the efforts of the commission. Further, Armstrong worked closely with the UNFCC to develop the calculations for steam trap losses, this formula is approved for international trading of resultant carbon dioxide (CO_2) emission reductions under the Kyoto Protocol. Consequently, we are uniquely experienced as a global enterprise to proffer the following commentary:

SECTION 120.6 – MANDATORY REQUIREMENTS FOR COVERED PROCESSES

Subsection 120.6(j): Mandatory Requirements for Steam Traps.

1. Central Steam Trap FDD Monitoring

We would strongly suggest the proposal also include a mandatory energy loss calculation software to quantify dollar savings (cost avoidance) and CO_2 emission savings. The software would allow the user to manage their Steam Trap data and prioritize replacement based on highest losses.
From our experience, a high number of alarms without any management and prioritization system will not lead to actions. We would recommend that the Steam Loss Calculations and CO_2 emission reductions are done using the UNFCC approved formula for steam losses.

https://cdm.unfccc.int/EB/020/eb20repan10.pdf

2. Steam Trap Strainer Installation

We would suggest broadening the requirement to include a double block isolation valve upfront and downstream of the steam trap, in addition to the recommended strainer and blowdown valve. In our view, a double block isolation valve would significantly improve operator safety and speed the ability to repair or replace failed steam traps reducing the mean time to repair.
Without appropriate valve isolation of the steam trap, the user will require a steam system shutdown and cooldown to safely repair the steam trap. Steam system shutdowns, depending on the type of operation might only happen on weekends, or once a year for plants that operate continuously.

APPENDIX NA7.21 –STEAM TRAP FAULT DETECTION ACCEPTANCE TESTS

We encourage an acceptance test that requires construction inspection and functional testing to confirm the steam trap fault detection system is installed and operating as required by the new mandatory requirements in Section 120.6(j). Additionally, we would strongly suggest the proposal also include a mandatory energy loss calculation software to quantify dollar savings (cost avoidance) and CO_2 emission savings.

Thank you for the opportunity to provide input. I would be available at your convenience to clarify the preceding recommendations, if necessary.

Sincerely,

Patricia Provot
President
Armstrong International – The Americas