
ASW ENGINEERING MANAGEMENT CONSULTANTS

September 26, 2011

To: The SCE ISP evaluation team
SCE

From: Dennis Rowan, PE
ASW Engineering

Re: Investigations of Energy Efficiency Measures and Standard Industry Practice
[Steel Manufacturer Cleaner Bypass Project]

Dear ISP team,

ASW has conducted a review of the cleaner bypass project and recommends that SCE consider the project to be industry standard practice.

PROJECT BACKGROUND

Steel manufacturers produce metallic-coated and painted steel coils for the construction markets in the United States and Canada. A facility in California is strategically located to best serve the West Coast coated steel markets. This location handles every stage of the coil-coating process, from pickling through painting.

The cleaner system described in the retrofit project is designed to spray high pressured water and solvent onto a freshly treated roll of sheet metal. The cleaner has several spray nozzles and scrubbing brushes which clean the rolled steel. The metal is then dried, rolled and then shipped to end use customers. The cleaner utilizes approximately 150 kW on average and the load is constant.

The facility has recently identified several different types of product rolls which they manufacture that do not require the cleaner system. Their existing practice is to clean them anyway as they have no type of system by-pass installed to do so.

Reduction in energy consumption at this site has been identified through the installation of a by-pass of the cleaner system, and automation to shut down the brushes, spray nozzles and blowers. This mechanical by-pass and automation control system diverts specific types of products from going through the cleaning system. The facility engineering staff estimates that over 60% of the finished product can be diverted from the cleaner.

METHODOLOGY

The retrofit site contact was not available to be interviewed during our evaluation; three attempts were made to conduct this interview. ASW also attempted to contact the retrofit facility plant manager without success. ASW also attempted to contact plant managers of sister plants in other states without success.

In the course of reviewing this project, ASW contacted a competing steel manufacturing facility and inquired as to the practice of always running sheet metal materials through the cleaner regardless of the material being run.

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The competition indicated, in no uncertain terms, that it was a matter of customer preference as to whether the material would run through the cleaner. Since materials that run through the cleaner use more energy, their cost is higher, and so the customer will be required to pay the increased cost to operate the cleaner during their production runs.

This contact was asked if it was typical to have a bypass option for the cleaner or if it was normal for sheet metal lines to operate without a bypass option. His response was that it is standard practice for the sheet metal line to have a bypass option for the cleaner so that only those products that need to go through the cleaner incur the added cost of the cleaner. There was no question that he was certain in his response.

CONCLUSION

ASW recommends that SCE consider this project is industry standard practice since it involves bypassing an unnecessary process during manufacturing. The confirmation from the alternative industry source is provided as industry support for ASW's recommendation regarding this project.

Dennis Rowan, PE
ASW Engineering