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Project Abstracts - Chemical alternatives for a components manufacturer in the Twin Cities area

INTERN

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PROJECT FOCUS

Chemicals

ADVISOR

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COMPANY DESCRIPTION

This components manufacturer in the Twin Cities area is focused on a design and manufacturing of outsourced components to be used by leading companies across four continents..

FOCUS OF RESEARCH / RECOMMENDATIONS

Over the past year, MnTAP has been working with the company to eliminate Trichloroethylene from their processes. The chemical reduction project focuses on implementing a new TCE-free cleaning process that will be more environmentally sustainable and reduce hazardous waste costs. Designed experiments will be used to determine the optimal wash cycle times for the new system, considering material, size, and functionality of each category of parts. New fixtures will also be developed to allow

additional parts to be cleaned using the new system, leading to further chemical reductions. Isopropyl alcohol used for cleaning and sanitizing will be quantified through log sheets and process observation, and standard procedures will be implemented to minimize usage.