

PROCESS WATER REDUCTION USING WATER PINCH TECHNOLOGY

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SUMMARY

The purpose of this study is to help utilities and energy service providers understand and find opportunities in the water and wastewater management area, which is pervasive throughout the industrial sector of the United States economy. There are many commonalities between various industry segments, especially in the process industries (chemicals, petroleum, pulp and paper, food, textiles, etc.). However, there are also things (technical and regulatory) that are specific to individual industries that need special handling (petroleum refining desalter emulsion problems, pulp & paper black liquor and bio-fouling, textile dyes recovery/destruction, differing regulations including different mandated control technologies, etc.). This report focuses on the chemicals and petroleum industries, and concentrates on the issues and logic of water and wastewater minimization (without and with zero discharge as the final objective), what technologies industries tend to use in this very important area and why, what new and emerging technologies are likely to make it in this very complex, competitive area, and how utilities and energy service providers can capitalize on these trends.