



CASE STUDY

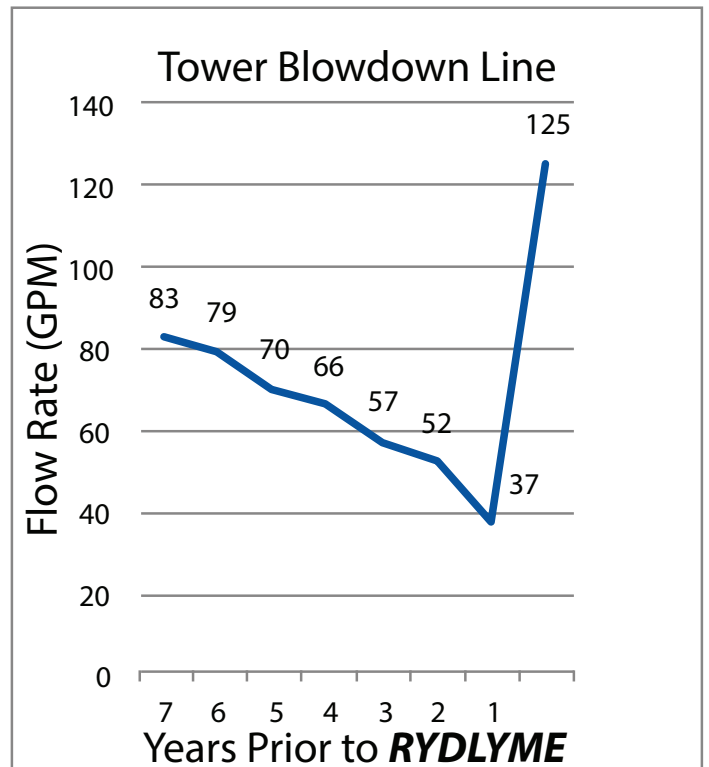
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COOLING TOWER BLOWDOWN LINE CLEANING

A northwestern petrochemical facility specializing in ethylene and polyethylene manufacturing was experiencing problems with their main cooling tower. Specifically, the problem was discovered to be in the blowdown line of the tower system. Designs, pump specifications, drawings and historical data were obtained to evaluate the severity of the problem. The line consisted of 5,000 feet of 4" carbon steel pipe. It was determined that over the past 30 years, scale had progressively accumulated within the blowdown line and restricted flow. Flow rates which were designed for 125 gallons per minute were reduced to just 37 GPM!

For personnel safety and effectiveness on the scale deposit, **RYDLYME** was awarded the task of dissolving the scale and returning the system to full capacity. Due to the length of the blowdown line utilizing hoses to establish circulation was not a viable option. For the severe accumulation of scale, having agitation of the **RYDLYME** was essential. Therefore, a pair of vacuum pump trucks were established at either end of the line. One truck would pump a diluted **RYDLYME** solution down the line, rapidly dissolving layers of scale, to be collected and then pumped back up the line. Within eight hours the blowdown line was completely rid of scale deposits. At once the flow rates were measured at the design specification of 125 GPM! In addition, the plant personnel observed improved performance and quieter operation of the cooling tower pumps.



CHALLENGE

Flow rate in cooling tower blowdown line restricted to less than 30% capacity. Piping meanders for over 5,000 feet, preventing mechanical cleaning and circulation.

SOLUTION

Utilizing two vacuum pump trucks, **RYDLYME** was passed back and forth for 8 hours.

RESULTS

Flow rates increased 235% and fully achieved design specifications! Noticeable improvement in cooling tower pump operation as well.



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