



Insulation Survey Case Study



BENEFITS:

- Eliminate excess steam usage
- Lower condensate load
- Process will remain heated
- Reduce water hammering
- Identify all safety issues

BACKGROUND:

The client is one of the largest petrochemical complexes in the United States. It has a capacity of 584,000 barrels per day. Employees over 7,000 people.

THE TASK:

To reduce steam load, keep the processes heated and to evaluate all steam lines. To identify why after 5 consecutive days of excessive rain did the refineries steam load increase to the point of shutting the plant down

SOLUTION:

Perform a plant wide Insulation survey to inspect the system for any opportunities to conserve steam.

RESULTS:

- Excess steam and condensate load dropped dramatically reducing the risk of losing the plant due to steam loss.

(PCE only surveyed a portion of the plant)

INSULATION LEAK SURVEY

- Heat loss - 61,099,010 (kbtu/ft/yr)
- Dollar loss - \$280,617.36 (\$/ft/yr)
- CO₂ - 9,493,156 (lb/ft/yr)

RECOMMENDATIONS:

For the client to survey the areas that were not surveyed initially and to implement a yearly survey into the preventative maintenance program to keep the steam and condensate load down.

Petro Chemical Energy

107 Madison Street NE
Russellville, AL 35653
Office: 1-256-331-2473
Fax: 1-256-331-2475

www.petrochemicalenergy.com