



Case History: Client-Citgo Refinery, Lake Charles , LA

Problem:

Methanol coolers have been attacked by severe, highly aggressive corrosion. New coolers with a capital cost of \$150,000 developed tube leaks in six months. Analysis by plant personnel discovered carbonic acid developing from carbon dioxide leakage. Inspection analysis estimated metal loss at 200-300 mils per year. Additionally the plant needed to solve this problem within a short turnaround duration of 10 days.

Solution :

Curran International was called to apply an epoxy coating to the tube ID of two fin fan methanol coolers in-situ. Tubes are 1" OD, 12 BWG by 36 feet long; corrosion pits were evident from .015 inch to .075 inch deep. A single crew working one 12-hour shift for five days coated the full length tube ID of both fin fans. The exchanger was heat cured for eight hours and returned for reinstallation with a final dry film thickness of 8-10 mils. The exchangers have been returned to service with no impact on process. No quantitative valves are available from plant.

Project References

Please call Curran International for additional project references.