

CASE STUDY

MAXIMIZE EFFICIENCY, MINIMIZE DOWNTIME



DAY ONE
Existing System is shut down.



DAY TWO
Stack moved 15 feet.
SCR in place up against
Economizer II. Rolling
Economizer I to left.



DAY THREE
Slipping in the additional
economizer.



DAY FOUR
Fitting transition duct
to stack.



DAY FIVE
All economizer tubes piped.
AIG and ammonia system
connected.

LOCATION

A west coast refinery cogeneration plant produces steam for re-injection to enhance oil recovery and for power. The facility has two LM2500 gas turbine HRSG trains.

NEED

Reduction of NOx emissions from the turbine exhaust system with the ability for 94% reduction in the future.

SOLUTION

Provide the customer with the latest available NOx reduction technology, all associated components and a major overhaul effort including the replacement and relocation of the HRSG duct sections.

This application provided the opportunity for Peerless to integrate four solutions in a Turn-key SCR project:

- Evaluate, design and install the SCR system components, including replacement and relocation of HRSG sections.
- Supply the safe and reliable containment of the reagent with an ammonia unloading, storage and handling system, an ammonia injection grid, the catalyst & internal structure.
- Coordinate the construction process to ensure efficient application of contractor services.
- Install, start-up and commissioning services within a five-day outage.

RESULTS

The redesign of the steam generation system was key. By blocking off a specific tube section in Economizer I, the catalyst would operate within its ideal temperature range. The installation of the new economizer will also help to improve efficiency.

To achieve the optimum placement of the SCR unit, additional space was required between Economizer II and I. Moving the stack, modifying the duct, connecting the new economizer tubes and setting the SCR module was carefully planned and orchestrated.

SCHEDULE

Within a five-day outage, Peerless successfully accomplished the equipment movement and installation of both systems.

A Peerless Turn-key Scope provides the advantage of single point responsibility for design, equipment manufacture, guaranteed system performance, installation and commissioning.

**WHEN YOU HAVE A NEED,
PEERLESS HAS THE SOLUTION.**

