

NEW BOILER USING SELECTIVE CATALYTIC REDUCTION (SCR) TO MEET REQUIREMENTS

SCR CASE STUDY

Leprino Foods Lemoore West

Lemoore, California

SCR System

CUSTOMER APPLICATION AND KEY CHALLENGES

Leprino Foods, is a world leader in premium-quality cheese manufacturing and the largest U.S. exporter of whey products. Leprino mozzarella cheese, cheese blends, and pizza cheese are made especially for pizzeria and foodservice operators, frozen food manufacturers and private label cheese packagers.

The Lemoore facility was planning a large expansion to a 500,000 sq. ft. cheese-making and whey-processing facility that is one of the world's largest cheese plants today. This expanded plant would require additional steam for processing. R.F. MacDonald Co. worked in conjunction with the facility engineers to deliver and install a boiler system that would meet the plant's production demands as well as the new Ultra-Low NOx requirements of the San Joaquin Valley Air Pollution Control district.



The Leprino Foods Lemoore West facility

THE R.F. MACDONALD CO. ANALYSIS & SOLUTION

The production facility was using R.F. MacDonald Co. service group out of Fresno for maintenance, combustion tuning and emission source testing of the existing boiler equipment. Leprino Foods selected R.F. MacDonald Co. to furnish and install their new 1200HP boiler system after careful evaluation of the Cleaver-Brooks boiler, associated custom control system, burner, economizer and Ultra-Low NOx Selective Catalytic Reduction (SCR) system.

Leprino Foods choose to include a condensing stack economizer and a variable frequency drive for the blower motor to maximize energy efficiency and minimize the carbon foot print. The boiler system selection by Leprino Foods meets all current regulations and the recently adopted Best Performance Standards (BPS) for boilers over 20MMBH and 75psig steam operation.

In addition, the project scope of work included modifications to the condensate return system to improve deaerator operations and maximize condensate recovery. This added to the fuel and water efficiency to further minimize its impact on the environment.



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PARTS

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Final installation of Boiler and SCR system

Installing an SCR system helps companies solve the looming low NOx requirements of today - as well as into the future with efficient performance, ease of use and long equipment life times.



Final installation