

“Emissionator” Helps Terminate Pollution

Emissions control package helps gas engines meet California’s tough Central Valley clean air standards



The new Emissionator emissions control system from Murcal combines a Miratech VXC Series catalyst with a Compliance Controls AFR-1 air-fuel ratio controller and HEGO oxygen sensor. The system was tested on gas engines operating in California’s San Joaquin Valley and met the district’s stringent air quality standards.

Industries that rely upon gas-fired, rich-burn, internal combustion engines as part of their operations often face challenging air quality compliance issues, particularly in emissions-sensitive areas like California’s San Joaquin Valley. One solution is a new emissions control system packaged by MurCal Inc., a third-generation, family-owned supplier of instrumentation and control products headquartered in Palmdale, Calif.

The Emissionator emissions control system combines a Miratech VXC Series catalyst with a Compliance Controls AFR-1 air-fuel ratio controller and HEGO oxygen sensor.

“We chose the VXC series from Miratech because it offers a range of converters that will work from 50 to 400 bhp engines,” said Tyrone Hunter, regional sales manager for MurCal. “Through our research of the market we determined that the majority of agriculture pump engines fall into this horsepower range.

“The Compliance Controls AFR-1 was selected for its ease of use, single setpoint, and its best available technology that allows it to respond quickly to keep the emissions in compliance.”

Murcal provided installation and monitoring of the equipment. The Emissionator package has achieved

Conditional Certification by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for compliance with the District’s Rule 4702. That certification, based on tests conducted by Environmental Management Solutions Inc., showed a reduction in both NO_x and CO of greater than or equal to 80%, as well as a reduction in VOC emissions greater than 50%.

“We are obviously excited at the District’s findings, but not at all surprised by the test results,” said Hunter. “The Emissionator system is the result of a pooling of efforts by companies who are experts in their respective fields. Today, as a result of

that cooperative effort, we have a solution to a challenge once thought near impossible to meet.”

Tests were conducted using a pair of rich-burn, natural gas-fired engines — a Cummins G855 engine rated 200 hp and a Caterpillar 3406 rated 365 hp. The engines are owned and operated by Russ Schott Farms, Pixley, Calif. Russ Schott Farms, which began in 1960, grows almonds, pistachios, alfalfa, wheat, corn and cotton. All 3000 acres of growing land are irrigated by 10 natural gas engine-driven pumps.

Hemmed in by mountains, the San Joaquin Valley tends to trap air within its basin, which adds some urgency to air quality concerns.

“There are farms — and other industries as well — all through the Central Valley of California that run dozens of such engines on a daily basis and can benefit immediately from the Emissionator Control Sys-

tem,” said Bill Clary, Miratech CEO. “This is an outstanding opportunity for us to be a part of an undertaking that will produce immediate and measurable results to the residents of this and other regions.”

“From a compliance standpoint, there’s no denying the impact this system will have on customers like the farmers in California, companies engaged in natural gas transmission, and scores of others,” added Rick Rohrer, general manager for Tulsa, Okla.-based Compliance Controls. “Looking at the bigger picture, however, everyone benefits from the overall lowering of emissions and reduction of impact on the environment. It’s really a win-win across the board.”

MurCal, Inc.’s, products monitor and adjust engine vital signs such as pressure, temperature, level and overspeed. Products range from sim-

ple start/stop controls to more sophisticated automation systems and include related engine control products such as air-fuel ratio controls, ignition systems, actuation and throttle control mechanisms, catalysts and replacement elements, particulate filters and dc contactors.

“Since the Emissionator is a package specifically designed for Rule 4702, we are marketing it in the San Joaquin Valley to farmers operating ag engines,” said Hunter. “The technology will benefit any operator of a natural gas engine and we market Miratech catalytic converters and Compliance Controls air-fuel ratio controllers in our assigned territory.” **dp**

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POWERLINES

John Deere Power Systems has revised its extended warranty program for recreational marine customers. The revised warranty will offer eligible marine customers a five-year/2000-hour extended warranty at no additional cost, said the company. The program is applicable to new propulsion engines installed in newly constructed or repowered vessels that are not used to generate revenue.

Sauer-Danfoss and **Thermal Transfer** will sponsor a series of free, day-long seminars throughout the United States and Canada to assist OEMs and industry suppliers in adapting to the new challenges that come with Tier 4 and Stage 4 emissions compliance. The day-long seminars include an update on global emissions regulations, overviews on engine emissions technology, cooling systems technology, control systems technology, fan technology and power transmission solutions.

January seminars will be in Atlanta, Ga. (Jan. 12); Orlando, Fla. (Jan. 14); Dallas, Texas (Jan. 19); Houston, Texas (Jan. 21); Edmonton, Alberta, Canada (Jan. 26); and Winnipeg, Manitoba, Canada (Jan. 28). In February, sessions will be in Las Vegas, Nev. (Feb. 3); Phoenix, Ariz. (Feb. 9); Denver, Colo. (Feb. 11); Kansas City, Mo. (Feb. 16); Cleveland, Ohio (Feb. 23); and Philadelphia, Penn. (Feb. 25).

March seminars will be in Seattle, Wash. (March 2); Portland, Ore. (March 4); Sacramento, Calif. (March 9); Los Angeles, Calif. (March 11); and Memphis, Tenn. (March 30). The final session will be held April 1 in Charlotte, N.C.

For more information and to register for a seminar, visit www.thermaltransfer.com or the Seminars and Education page at www.sauer-danfoss.com/emissions.



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