

## **Integrity Municipal Services Successfully Refurbishes RJ-2000® Emergency Chlorine Vapor Scrubber at City of California City, CA**

In December 2006, Integrity Municipal Services (IMS) was contacted by the City of California City Plant Manager Greg Fielding to perform an inspection of their RJ-2000® emergency chlorine vapor scrubber system. IMS personnel were involved in the design, manufacturing, and start-up of the system during its original installation in 1994.

**“IMS technicians provided valuable assistance... I would highly recommend IMS technicians for any service activity related to chlorine scrubber units.”**

Greg Fielding, Plant manager

operating level. Inspection of the spray nozzles, piping and packing media indicated that the spray nozzles were almost completely plugged. The internal piping was intact, but the packing media had settled to a point where a large percentage of the spray was hitting the baffles instead of covering the media. The technicians also inspected the fiberglass lining for any fractures or corrosion and verified that it was in good working order.

After the inspection, Greg Fielding approved IMS personnel's recommendations for refurbishing the unit. Muriatic acid was used to dissolve all the solids in the scrubber sump and clean the packing media, spray nozzles and piping. IMS technicians replaced the drain valve/overflow piping assembly and installed a new pressure gauge with diaphragm seal, a new level switch, and a new sight glass assembly. In addition, the technicians added new packing media to bring the packing media level to the original design specification requirements. IMS technicians also serviced the exhaust fan by greasing and tightening bear-

ings and replacing the drive belts. After the thorough cleaning of the system, the scrubber was loaded with 2,100 gallons of fresh 20% membrane grade caustic soda and the technicians then ran the system to confirm proper operation per original manufacturing specifications.

Greg Fielding stated, “In 2007, Integrity Municipal Services provided an initial inspection of our emergency chlorine vapor scrubber. The inspection revealed serious problems with the unit. IMS technicians recommended an acid wash and recharge as well as replacement of media and gauges. The wash and recharge activities were done in a very timely manner. The inspection and subsequent service saved the scrubber and pump from serious damage or complete failure should there have been an emergency. We have contracted with IMS since 2007 for annual inspections and had an additional cleaning and recharge in 2011. IMS technicians provided valuable assistance on operation and maintenance activities to maximize the useful life of the caustic solution and sprayers. I would highly recommend IMS technicians for any service activity related to chlorine scrubber units.”



*RJ-2000®  
Emergency Chlorine Vapor Scrubber*

## BEFORE



## AFTER



*Pictured are photos of the RJ-2000® Emergency Chlorine Scrubber System refurbished by IMS. RJ Environmental is a subsidiary of Evoqua Water Technologies LLC. RJ-2000® is a trademark of Evoqua Water Technologies LLC.*