

Case Study

Mazzei AirJection[®] System Helps Food Processing Plant Meet Discharge Permit.

THE PROBLEM: The treatment plant of a central California food processing facility was unable to lower the BOD of the plant waste water using blowers and diffusers. The high level of BOD in the effluent water restricted the discharge of the water into plant's leach field. Waste water which could not be discharged was removed from the plant, at significant expense, for off-site disposal.

THE SOLUTION: A second 50,000 gallon aeration tank was added, in series, to the existing 50,000 gallon aeration tank. The existing aeration system was removed from the first tank and a Mazzei AirJection[®] System was installed in both tanks.

Each Mazzei AirJection[®] System consisted of four (4) Model 4091 (4" PVDF) Injectors, each with two (2) Model N45 (4" PVDF) MTM[™] Mixing Nozzles. Each system was powered by a suitable pump.



THE RESULTS: There were no startup problems with the Mazzei AirJection[®] Systems. Dissolved oxygen levels were maintained in excess of 2.0 mg/l. BOD was reduced from 1,800/2500 mg/l to 1,200 mg/l in the first aeration tank and from 1,200 mg/l to 100 mg/l in the second aeration tank. This met the plant's discharge permit.

After cleaning, the plant's leach field was easily able to handle the treated waste water flow of 10,000 to 15,000 gallons per day. The Mazzei AirJection[®] Systems have operated without incident since startup.

