

SUBJECT: ENGINE #3 TOP END OVERHAUL

SOURCE: Public Works Department - Wastewater Division

COMMENT: The City of Porterville Wastewater Treatment Facility (WWTF) uses three 220 hp internal combustion Waukesha engines, in rotation, to supply oxygen to the biomass in the treatment process. The oxygen requirements are such that two engines must run 24 hours per day. A third engine is rotated into service when the operating engines require maintenance.

In February 2013, a top end inspection was performed by Valley Power Systems on all three engines. Engine #3, along with Engine #4, were the two engines the inspection confirmed required a top end overhaul.

On April 6, 2013, Engine #3 went into automatic shutdown. The engine was backfiring and would not reach the required RPMs. This issue has been progressively getting worse. Engine #3 was rebuilt in August of 2009 and a top end overhaul is now due.

At the April 2, 2013, Council meeting, the City Council approved Valley Power to begin the top end overhaul of Engine #4. This work is currently underway. With Engine #3 performing poorly; it is critical that the top end overhaul be performed immediately to provide the WWTF with the redundancy needed to maintain the biomass oxygen requirements. Cost of top end overhaul and repair on Engine #3 should not exceed \$30,000. Funding for the project will come from the Wastewater Treatment Facility Capital Reserve Fund.

RECOMMENDATION: That the City Council:

1. Approve Valley Power perform the top end overhaul on Engine #3 at a repair cost of less than \$30,000.

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