

COUNCIL ACTION FORM

SUBJECT: POWER PLANT UNIT 7 CIRCULATING WATER PIPE REHABILITATION

BACKGROUND:

This project is for the rehabilitation of the circulating water pipe located in Unit 7 at the Power Plant. Unit 7 is a 35,000 kw steam turbine generator that uses a cooling tower to cool the circulating water that flows through the condenser. The uncoated steel pipe that carries the water from the condenser to the cooling tower and back has rusted internally over its 45 years of service.

Staff discovered that the wall thickness in many locations on the pipe was below required minimum thickness. This has resulted in failure/leakage on three different occasions. One example was in the summer of 2010, when staff experienced a major failure underground on the discharge header between the Plant and the cooling tower. Continued failures like this increase the risk to the reliability of the overall system.

The majority of this piping is underneath the sub-basement floor and is extremely difficult to access. Staff believes the best option is to coat the lines internally, extending the usefulness of the existing pipe. As another option, replacement of the pipe would cost between \$1.0 and \$1.6 million.

The Engineer's estimate of the cost of this project is \$258,000. The approved 2011/12 budget and Capital Improvements Plan contain \$500,000 for this project.

ALTERNATIVES:

1. Approve the preliminary plans and specifications for the Unit 7 Circulating Water Pipe Rehabilitation and set October 12, 2011, as the bid due date and October 25, 2011, as the date of hearing and award of contract.
2. Delay the repair of the Unit 7 circulating water pipe.

MANAGER'S RECOMMENDED ACTION:

Failure to impede the deterioration of the piping will put the reliability of Unit #7 at risk, and it is essential to return this pipe to a status of providing safe, reliable, and leak free operation. Otherwise, Unit 7 will experience future forced shutdowns for repair and lost generation opportunities. Leaks could also occur under concrete foundations which could cause extensive damage and additional costly repairs.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 as outlined above.