UTILITY COMMITTEE
A G E N D A

OCTOBER 8, 2012 - 5:30 P.M.

CITY HALL COUNCIL CHAMBERS
15 LOOCKERMAN PLAZA
DOVER, DELAWARE

Public comments are welcomed on any item and will be permitted at appropriate times. When possible, please notify the City Clerk (736-7008 or e-mail at CityClerk@dover.de.us) should you wish to be recognized.

AGENDA ADDITIONS/DELETIONS

1. Unit 1 Turbine Steam Seal Repair - McKee Run Generating Station

2. Updates
   A. National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) Permit
   B. Garrison Oak Technical Park Project

3. Adjournment by 5:55 P.M.

/tm
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THE AGENDA ITEMS AS LISTED MAY NOT BE CONSIDERED IN SEQUENCE. THIS AGENDA IS SUBJECT TO CHANGE TO INCLUDE THE ADDITION OR THE DELETION OF ITEMS, INCLUDING EXECUTIVE SESSIONS.

ACTION FORM

PROCEEDING: Utility Commitee
DEPARTMENT OF ORIGIN: Public Utilities- Power Plant (NAES) **DATE SUBMITTED**: 10/8/12
PREPARED BY: Vincent Scire, Plant Manager
SUBJECT: NEW CIP - Unit 1 Turbine Steam Seal Repair - McKee Run Generating Station
REFERENCE: N/A
RELATED PROJECT: N/A
REVIEWED BY: City Manager & Controller/Treasurer
EXHIBITS: New CIP- Unit 1 Turbine Steam Seal Repair
EXPENDITURE REQUIRED: **$65,000.00** **AMOUNT BUDGETED**: $ -0-
FUNDING SOURCE (Dept./Page in CIP & Budget): Electric Improvement & Extension Fund carry forward balance
TIMETABLE: This work is scheduled to be completed in November, 2012 during a planned maintenance outage on Unit 1
RECOMMENDED ACTION: Staff recommends approving the new CIP and the expenditure of funds in fiscal 2013

BACKGROUND AND ANALYSIS

McKee Run Unit 1 steam turbine developed a steam leak on the governor end of the machine. This leak has progressively gotten worse to the point that it is affecting the operation of the #1 bearing on this unit. When operating, this bearing is now running at elevated temperatures when the unit is at full load. This is an undesirable condition which could lead to damage to the bearing (if it is not already damaged), and possibly result in a forced outage. This Unit is not likely to operate until the spring of 2013; however, repairs need to be made as soon as possible to avoid further damage to the unit.

To address the problem we will replace the governor end outer gland seals and inspect the #1 bearing for damage. This will require:

- Removing the outer gland housing and seals
- Send seals to the OEM for refurbishment
- Reinstall the seals and gland housing, Align the housing to the turbine shell,
- Remove the governor table to access the #1 bearing
- Remove the bearing and inspect/ repair as necessary, reassemble the bearing. If work on the bearing is required, an alignment check will have to be performed.
- Reassembly of the governor table
- Operationally test the unit.

The cost to perform this work is $65,000 assuming no damage is found to the #1 bearing. The work can easily be accomplished in the fall outage timeframe. However, this work was not included in the original 2013 O&M budget nor in the 2013 CIP budget.

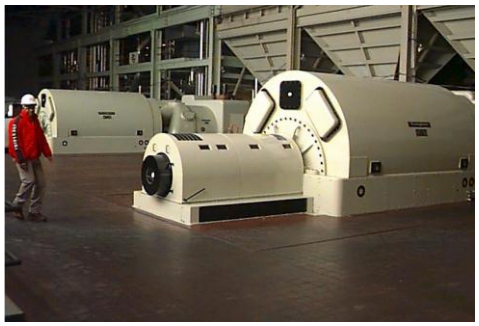
Capital Investments Plan

FY 13 thru FY 17

City of Dover, Delaware

Project #: **EG1301**

Project Name: **McKee Run Unit 1 Turbine Steam Seal Repairs**



Type: Maintenance

Department: Public Utilities-Power Plant

Useful Life: Unknown

Contact: Power Plant Manager

Category: Electric

Priority: 1

New Project: YES

Account #: 487-8101-591.40-89

Time-Line: **Work to be complete in November 2012**

Total Project Cost: $65,000

Description

McKee Run Unit 1 steam turbine developed a steam leak on the governor end of the machine. This leak has progressively gotten worse to the point that it is affecting the operation of the #1 bearing on this unit. When operating, this bearing is now running at elevated temperatures when the unit is at full load. This is an undesirable condition which could lead to damage to the bearing (if it is not already damaged), and possibly result in a forced outage. This Unit is not likely to operate until the spring of 2013, However, repairs need to be made as soon as possible to avoid further damage to the unit and potential effects on unit capacity.

To address the problem we will replace the governor end outer gland seals and inspect the #1 bearing for damage. This will require:

- Removing the outer gland housing and seals
- Send seals to the OEM for refurbishment
- Reinstall the seals and gland housing, Align the housing to the turbine shell,
- Remove the governor table to access the #1 bearing
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- Reassembly of the governor table
- Operationally test the unit.

Justification

This work is required to maintain the turbine reliability. Delaying this work will result in further damage to the unit and /or reduced capacity on the Unit. The consequence of this damage could result in an extended forced outage and subsequently impact capacity and generation revenues for the Utility.

Prior	Expenditure	FY 13	FY 14	FY 15	FY 16	FY 17	Total	Future
	Construction/Maintenance	**$65,000**					**$65,000**	
Total	Other							
	Miscellaneous							
	Total	**$65,000**					**$65,000**	

Prior	Funding Sources	FY 13	FY 14	FY 15	FY 16	FY 17	Total
	Electric I & E Fund						
Total	**Total**	**$65,000**					**$65,000**