Scattergood Generating Station
Community Meeting
September 26, 2018
El Segundo City Hall
Today’s Speakers

Reiko Kerr
Senior Assistant General Manager, Power System

Jose Gutierrez
Scattergood Generating Station Plant Manager

Abdul Rehman
Scattergood Generating Station Assistant Plant Manager
About Scattergood Generating Station

One of four in-basin power plants

Critical to City of LA’s power reliability

Pause on repowering projects
Schematic of Scattergood Units 4&5 CC

Natural Gas → Gas Turbine Generator → Electrical Power

Waste Heat

Heat Recovery Steam Generator

Waste Heat

Air Cooled Condenser

Water → Steam Turbine Generators

Steam → Electrical Power

Electrical grid
Auxiliary Boiler Failure

In February 2017, the Auxiliary Boiler Transformer (ABT) to Units 4 and 5 relayed off due to an internal fault, which resulted in the ABT transformer rupture.

- The ABT had experienced multiple trips during start ups.
- The ABT trips, and the subsequent failure, was due to high current through the transformer.
- The high current through the transformer was caused by a high steam demand in the electric aux boiler.
Steam System for Seals and Vacuum

- Aux Boiler Transformer
- Electric Boiler
- Superheater (Steam Jet Air Ejectors)
- Superheater (Steam Seals)
- Hogging
- Holding
- Condenser Sparging
- Steam Turbine Seals
- Sky Vent
- IP Steam

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Short-Term Plan

Avoid start ups between 10pm to 7am

We have been running the equipment continuously to avoid starting up equipment

Communicate with the public when we are starting up
Communicating with our Neighbors

**Email notifications** to local community and residents to provide advance notice, when possible, for activities outside of normal operations.

**Dedicated Community Liaison:** Deborah Hong
For questions and comments, contact Deborah.Hong@ladwp.com or (213) 367-5204

**Online Updates:** Coming Soon
*Webpage under Construction*
# Long-term Plan

Install a New Auxiliary Boiler Transformer

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement</td>
<td>3 months</td>
</tr>
<tr>
<td>Fabrication</td>
<td>7 months</td>
</tr>
<tr>
<td>Construction and Installation</td>
<td>6 months</td>
</tr>
</tbody>
</table>

Our goal is to install a new transformer and resume normal operations by late 2019.
1. New transformer installed by late-2019

2. New vacuum pumps installed by mid-2019

3. Additional steam source will be added by late 2020
<table>
<thead>
<tr>
<th>Date</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 8 – 15, 2018</td>
<td>Inspection</td>
</tr>
<tr>
<td>Feb 9 – Mar 9, 2019</td>
<td>Maintenance</td>
</tr>
</tbody>
</table>
Questions
Appendix
Electric Auxiliary Boiler
## Electric Auxiliary Boiler Transformer Failure

<table>
<thead>
<tr>
<th>Steam Users</th>
<th>Design Values</th>
<th>Actual Flows</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Coincident Flows, lb/hr</strong></td>
<td></td>
</tr>
<tr>
<td>Shaft seals, worn</td>
<td>9,500</td>
<td>* 15697</td>
</tr>
<tr>
<td>Condenser sparging, minimum</td>
<td>10,500 Not Coincident with hogging</td>
<td>10500</td>
</tr>
<tr>
<td>SJAE, Condenser Hogging</td>
<td>10,500 Not Coincident with sparging</td>
<td>14336</td>
</tr>
<tr>
<td>SJAE, Condenser Holding</td>
<td>1,650</td>
<td>1650</td>
</tr>
<tr>
<td>ST supplied continuous flow orifices</td>
<td>1,000</td>
<td>1000</td>
</tr>
<tr>
<td>Aux boiler capacity, lb/hr</td>
<td>22,650</td>
<td>43183</td>
</tr>
</tbody>
</table>

* This is peak flow recorded by historian. The steady flow is close to 9500 lb/hr

Note: The computer logic allowed sparging and hogging to occur simultaneously with no interlock to prevent this operation.