The Metro Plant has one of the most advanced and highest performing incineration systems in the country.

### Air Emission Performance

Metropolitan Council Environmental Services set the bar high for air quality emissions on the national stage. The Environmental Protection Agency used the operating data from the Metro Plant to set the toughest air standards in the world.

Metro Plant incinerator emissions are regulated by the Minnesota Pollution Control Agency and the Environmental Protection Agency. The three existing incinerators have consistently been 50% below the emission standards for new incinerators.

The fourth incinerator will continue the trend of exceptional air quality.

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#### Metro Plant Incinerator Performance Compared to EPA Emission Standards for New Fluidized Bed Incinerators

<table>
<thead>
<tr>
<th>Emission Type</th>
<th>100%</th>
<th>80%</th>
<th>60%</th>
<th>40%</th>
<th>20%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Suspended Particulates (TSP)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Nitrogen Oxides (NOₓ)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Hydrochloric Acid (HCl)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Cadmium (Cd)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Dioxins &amp; Furans (PCDD/PCDF)</td>
<td>100%</td>
<td>80%</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Air Pollution Control Equipment

The fourth incinerator will be designed with state-of-the-art air pollution control equipment that removes 99% of particulates, heavy metals, and other air pollutants.

1. **FLUID BED INCINERATOR**
   - The fluid bed incinerators are operated within specified temperature ranges to meet nitrogen oxide standards. Complete combustion minimizes carbon monoxide.
   - **REMOVES:** NOx, CO

2. **CARBON TOWER**
   - Carbon is injected into the flue gas to remove mercury.
   - **REMOVES:** Hg

3. **BAGHOUSE**
   - The baghouse uses 816 filter bags to remove particulates which include injected carbon and heavy metals. The particles collect on the outside of the bags and fall to the bottom in the form of ash.
   - **REMOVES:** TSP, Cd, Hg, Pb

4. **WET SCRUBBER**
   - Water sprays into the wet scrubber, cools the flue gas and removes remaining particulates. Caustic addition neutralizes acid gases.
   - **REMOVES:** TSP, SO2, NOx, Cd, Hg, HCl, Pb, PCDD/PCDF

5. **WET ELECTROSTATIC PRECIPITATOR**
   - Electrically charged metal rods remove any remaining very fine particulates and heavy metals from the flue gas.
   - **REMOVES:** TSP, Cd, Hg, Pb

6. **STACK**
   - Emissions leaving the stacks are clean, odorless, colorless, and have no visible plume.