

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.

Dioxide

Monoxide

Particulates

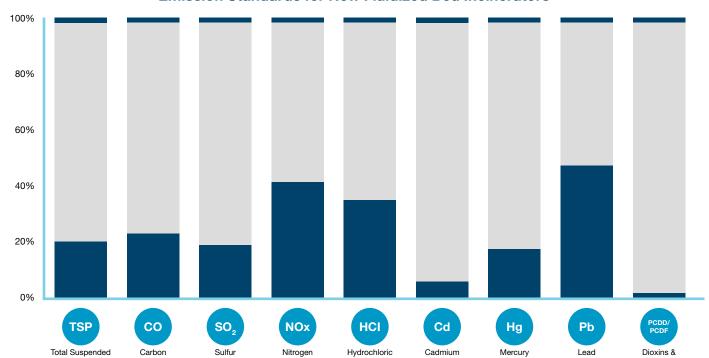
Oxides



The fourth incinerator stack will be located at the same location and height as the existing stacks.

Furans

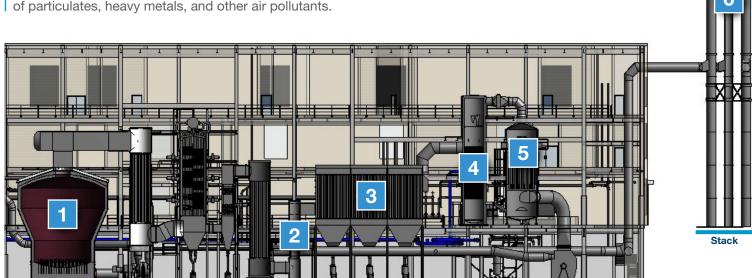
Metro Plant Incinerator Performance Compared to EPA Emission Standards for New Fluidized Bed Incinerators



Acid

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.



Incineration

Energy Recovery

Air Pollution Control



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







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 (F)













2 CARBON TOWER

Carbon is injected into the flue gas to remove mercury.

REMOVES: Hg





WET ELECTROSTATIC

Electrically charged metal rods remove any remaining very fine particulates and heavy metals from the flue gas.

REMOVES: TSP











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:









6 STACK

Emissions leaving the stacks are clean, odorless, colorless, and have no visible plume.



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MCES Mission

Provide wastewater services and integrated planning to ensure sustainable water quality and water supply for the region.

