

REDUCING TOXIC EMISSIONS IN INDUSTRIAL PLANTS

Sources of Toxic Emissions



- ▶ Industrial businesses — such as construction, food processing and manufacturing — are responsible for one-fifth of greenhouse gas emissions in the U.S.
- ▶ The industrial sector consumes electricity at such a rate that this form of indirect emission when combined with direct emission accounts for 29.3% total.

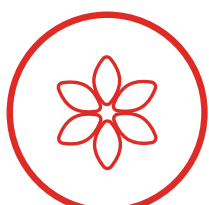
- ▶ Carbon dioxide (CO₂) and methane increase the global surface temperature with methane having a global warming potential 21 to 25 times higher than CO₂.
- ▶ The largest man-made source of methane pollution in the U.S. is gas and oil combustion, with vehicles on the road as a major source.



- ▶ The toxic chemical mercury is known to pollute water, thus contaminating marine life for human consumption.
- ▶ Mercury particles emitted from power plants have been shown to harm a child's developing brain — reducing IQ and the ability to learn.
- ▶ Potential leaks of halogen chlorine pose a direct threat to the environment when released in sufficient quantities outside industrial premises.



Ways to Minimize and Prevent Toxic Emissions



Switch to environmentally friendly equipment, technology and materials.



Equipment such as halogen-free bus ducts and bus plugs are designed to provide electric power distribution used in industrial applications, instead of traditional power cables.



Utilize abatement technology — such as catalytic oxidizers, regenerative thermal oxidizers and wet scrubbers — to destroy pollutants at the source of production.



Replacing manufacturing materials with greener products and nonhazardous biocide alternatives could reduce pollution and health risks for workers.



Change to cleaner energy sources such as wind, solar, biomass and geothermal systems.



Natural gas, while not perfect, is cleaner than fossil fuels as the levels of sulfur and mercury pollution are considered negligible.



Balancing supply and demand to offset production waste can lead to decreased levels of volatile organic compounds and other air pollutants.

