State-of-the-Art Incinerators: The Problems Won t Go Away

Whenever an incinerator company wants to persuade local communities to invest in a new incinerator plant, they often attempt to sell it by claiming it is "state of the art," meaning that it is equipped with the latest pollution control devices. But this end of the pipeline approach will not solve the heavy metal and dioxin contamination of the environment.

Toxic ash

Modern incinerators with sophisticated pollution control equipment will trap some of the toxic metals in the fly ash the residue captured by the pollution control devices. Ironically, this means that the better the air pollution control, the more toxic the ash. Not only are toxic metals captured in the fly ash, but a number of toxic compounds, including dioxins and furans, are actually created on the fly ash particles in a process called post-combustion formation. A hundred times more dioxin may leave the incinerator on the fly ash than is emitted into the air from the smoke stacks.

The toxicity of the fly ash means that an expensive hazardous waste landfill site must be found for its disposal. However, all landfills eventually leak; the dioxins and heavy metals in the fly ash will eventually find their way into the groundwaters around the landfill and then perhaps into drinking water sources or the sea. A modern, properly regulated landfill will only delay this process, not prevent it.

Doubtful Air Emission Data

Much of the airborne emissions data from modern incinerators comes from measurements made under ideal conditions, for example, when the plant is brand-new or when the operators are seeking to obtain their operating permits. Companies know exactly when they are going to be tested and can ensure that their most qualified operators and engineers are present to achieve optimum conditions. It is very doubtful that an incinerator facility will enforce this kind of drill 24 hours a day, 365 days a year, with no inspector present. In the Netherlands, one study showed that the standard six-hour test for dioxin emissions from a modern incinerator actually underestimated dioxin emissions by a factor of 30 to 50.

The public is held hostage to how well the incinerator is operated, maintained and monitored over its 20-year lifetime. In the U.S., modern incinerators have had problems with their pollution control equipment. Sleuthing from a local environmental group in Indianapolis, Indiana documented that the local modern incinerator exceeded its permitted pollutant limits more than 6,000 times, including bypassing its air pollution control devices 18 times in less than two years. The potential problems are magnified in countries where there is little or no regulatory control abilities.

Exorbitant Costs

Modern incinerators with sophisticated air pollution control equipment are extremely expensive. For example, a new incinerator in Amsterdam (2000 tons per day) cost approximately US$600 million, with about US$300 million spent on pollution control. This kind of investment discourages a community from investing in recycling and other waste disposal alternatives, essentially locking in the community to incineration while it pays back the massive investment involved in building the incinerator.

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