

## NEW JERSEY'S MODEL INCINERATOR IN WARREN COUNTY

**B E F O R E** it went on line in July 1988, the **Blount** 400 tpd mass-burn incinerator in Warren County was touted to be the model incinerator for N.J. Reports on the first-year operation of this **model incinerator has done more to slow down incinerators in N.J. and elsewhere** than nearly any other incinerator in operation in the U.S. (See **Waste Not #s 18,23,38,46**). Local opposition was not ignited until Warren County began to consider proposals to expand the incinerator to 800 tpd. (If they expand the facility to the size they are indicating Warren County will be producing more ash than the total amount of trash the county produces). Stories have emerged about complaints from local residents finding a sooty ash left on their cars and houses and a noticeable increase in respiratory problems. One woman who lives directly below the plant claims that chemical odors permeate her whole house on an average of every ten days and that she requires the assistance of a breathing machine. This woman is a non-smoker and has no history of respiratory problems. She developed a persistent hacking cough in November 1988 that the doctors cannot diagnose and has spent three weeks in hospital. She says that when she calls the N.J. Department of Environmental Protection (**DEP**) they say there is nothing they can do about it.\* On the evening of September 6, 1989, an information forum on the plant was held in the White Township Municipal Building. For the first time in this area the meeting attracted an overflow audience, which included many county and local officials and several people from surrounding counties and Pennsylvania. Several nationally known critics of incineration spoke at the meeting, but the most important information was produced by local residents. They have done extensive research on emission data from the plant and the general problems of incineration. They revealed several significant pieces of information:

**PLANT SITED NEAR MANY DAIRY FARMS.** The incinerator is sited in the **biggest milk producing county in N.J.** The plant is surrounded by 87 dairy farms and about 50% of the forage consumed by the cows is produced locally. There are also three fish hatcheries in the area. (Note: young fish are the most sensitive creatures to dioxin. -Ed.) Residents produced photographs of downwash taking the stack plume down to the ground a short distance from the plant -the plant is directly adjacent to farmland. The DEP will conduct a one-year study around the Warren County incinerator to test for PAH's, heavy metals and dioxin in the air, soil, vegetation, and dairy products. The study is not site-specific for Warren County. The purpose of the study is to tell the DEP what emission levels are safe for various compounds and how to test for them. Due to budget constraints the DEP can only allot \$200,000 for this study which is to begin "soon" and the results will not be available for at least 18 months after it begins.

**M E R C U R Y.** The mercury emissions (while passing the N.J. standards) would fail the more stringent Minnesota standards, and **Blount** is building a sister plant in Minneapolis. (NJ standard is 0.5 pounds per hour per 200 ton unit; MN standard is 0.16 pounds per hour per 200 ton unit). Residents revealed that one of the latest trash incinerators in the U.S., the new **OGDEN MARTIN** facility in Stanislaus County, CA, is failing to remove any significant amount of mercury, even though they are using the much touted dry scrubber and baghouse system and operating them at 140°C, the temperature below which mercury is supposed to condense out (re: tests of pilot studies in the **Quebec City** plant retrofitted with this control equipment). According to the residents, officials at **OGDEN MARTIN** claim that mercury is not removed simply by adjusting this temperature. This mercury problem is significant in the context of earlier reports that out of 22 mercury hot spots in the Great Lakes, 18 contain trash or sewage sludge incinerators in the area (see **Waste Not #33**). In Florida, where concern has been raised about high mercury levels in the fish there, a major cause is thought to be

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solid waste incinerators. A possible explanation for this phenomena may be contained in an important paper presented at the June 1987 **Air Pollution Control Association** meeting in NY by **Morris Trichon** and **Joyce Feldman** who indicated that in the effort to destroy organics the higher temperatures push more metals into the vapor phase and particles of sub-micron size which elude both the air pollution control devices and detection devices. Copies of this paper, "The Formation of Trace Toxic Metal Emissions Resulting from Incineration," are available from **Waste Not** for \$1.50.

**ASH TEST OR ASH FUDGE?** Residents have analysed the ash testing data and found that in the beginning the ash was failing frequently (45% of the time) for cadmium & lead. Then plant officials began using **more lime** in the process (it is not clear if more lime was used in the scrubber or was added to the ash before it was tested). **Since more lime was added the ash has not failed one EP Toxicity Test.** However, residents noted that while the pH (acidity) of the initial tests was held steady at pH5 to 5.5 (what the EPA protocol envisions), the pH recorded after the lime was added ranged from 5.5 to 11.8. As both cadmium and lead are both less soluble in this pH range, residents suggest that the passing of the recent tests has been more to do with the lime interfering with the test, rather than the ash being less toxic.

**D I O X I N.** Residents pointed out that in normal running the plant appears to meet the N.J. standard, but N.J. only records the level of the most toxic congener of dioxin (2,3,7,8-TCDD) and does not use what most other authorities use: the toxic equivalent methodology. The DEP has consistently argued that they don't have to monitor dioxin more than once in every five years because they continuously monitor the CO emissions. Using the **Commerce, CA**, dioxin upset results it was shown that using the TCDD equivalent scale the DEP permit level could be violated with only 79 parts per million (ppm) of carbon monoxide which is below the DEP's limit of 100 ppm based on a 4-day moving average. In other words, CO measurement **alone** is not an adequate indicator of dioxin emissions.

**ASH LANDFILL.** Current plans call for a specially built ash landfill to be sited over a **sole source aquifer** and a \$800,000 state-funded study (out of money earmarked for recycling!) to use the ash for road-building. (See Dr. Richard Denison's report on ash utilization in **Waste Not #48**). The USEPA designated this site as a sole source aquifer primarily because of the NJ DEP petitioning them to do so! The DEP has not responded publically to residents' questions regarding the wisdom of siting the ashfill over the aquifer. **Metcalf & Eddy** were the original consulting engineers for the ashfill site. The ashfill is being built into a hillside. In July 1988, after a heavy rainstorm there was a tremendous run-off of excavated dirt into the Pequest River, after which the Soil Erosion department issued a stop order on the landfill. **Metcalf & Eddy** were fired as consultants to the ashfill in late 1988, and construction was resumed. In the summer of 1988 Warren County stated the ashfill would be completed by April 1989. Current projections are that the ashfill's first cell -5 acres- won't be ready until 1990. Ash continues to be sent to the **Grand Central Sanitation Landfill** in Pen Argyl, PA.

**TAX ASSESSMENTS.** During a long question and answer session which followed this public meeting, one angry resident revealed that on the tax assessment forms drawn up for her property, the tax assessor had recorded the distance in feet from her property to the incinerator (42,000 feet)! The audience was left in little doubt that the purpose of this record was not in recognition of an increased property value!

\* For more information on the Warren County incinerator contact Anna Maria Caldara, 82 Four Corners Road, Blairstown, NJ 07825, tel: 201-362-8805.

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WASTE NOT # 68

WASTE NOT is published 48 times a year

by

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