Throughout the late 1970s and early 1980s, EPA (U.S. Environmental Protection Agency) learned the hard way that landfills always leak and usually contaminate groundwater. So the agency kept making new restrictions on what chemicals could be buried in the ground. Because the agency did next to nothing to promote waste avoidance and pollution prevention, industry continued to produce more and more hazardous waste each year. Thus each year a larger and more diverse brew of toxins has been sent to the nation’s 18 huge commercial hazardous waste incinicators.

There is now a decade’s experience indicating that hazardous waste incinicators have never worked as designed, create massive pollution themselves, and periodically explode. Furthermore, as we saw last week (RHW #280), EPA scientists have known since 1985 that hazardous waste incinicators cannot destroy wastes to the extent required by law.

This week we focus on the human management failures of incinication technology.

Chemical Waste Management is the nation’s largest and wealthiest operator of hazardous waste incinicators. If anyone can afford to run an incinicator properly, Chem Waste can. Furthermore, the company says environmental compliance drives everything it does. Some of the parent firm’s top executives donate time to sit on the boards of directors of prominent environmental organizations like Audubon and National Wildlife Federation. They have a vice-president in charge of environmental policy and ethical standards. If anyone were capable of running an incinicator well, it would seem to be this company.

Yet during recent years Chem Waste’s two incinerators have racked up a list of leaks, spills, releases, explosions, violations and coverups that would fill a hefty book.[1]

Standard operating procedure says:

--all wastes must be sampled and incompatible wastes must never be mixed, BUT CHEM WASTE HAS MIXED INCOMPATIBLE WASTES TOGETHER, CAUSING CHEMICAL REACTIONS THAT SENT PLUMES OF WASTES WAFTING OFF-SITE.

--The rate at which wastes can enter the furnace is carefully specified, YET CHEM WASTE ON SEVERAL OCCASIONS HAS BEEN CAUGHT FEEDING WASTES AT EXCESSIVE RATES, REDUCING THE EFFECTIVENESS OF WASTE DESTRUCTION.

--Temperatures in the furnace must be maintained at 1600o or higher, YET CHEM WASTE SOMETIMES BURNS WASTES AT TEMPERATURES OF ONLY 13000.

--CO (carbon monoxide) must not exceed 500 ppm in the stack gas, YET CHEM WASTE HAS PERMITTED CO TO EXCEED THIS LIMIT.

--Manifests are supposed to say where all the wastes came from, YET CHEM WASTE HAS FAILED TO MAINTAIN PROPER MANIFESTS.

--Operating records are supposed to be kept, YET CHEM WASTE HAS FAILED TO KEEP THEM PROPERLY.

--Waste in leaking containers is supposed to be transferred to new containers, YET CHEM WASTE HAS FAILED TO DO THIS IN SOME CASES.

--All wastes are supposed to be sampled to avoid putting explosives into the furnace, YET BOTH CHEM WASTE INCINICATORS HAVE EXPLODED DURING THE PAST YEAR, OFFERING CLEAR EVIDENCE OF FAILURE TO IDENTIFY WASTES PROPERLY.

--Explosions are to be reported when they happen, YET CHEM WASTE HAS FAILED TO REPORT EXPLOSIONS AT ITS INCINICATORS.

--Waste feed is supposed to cut off automatically when hydrochloric acid (HCl) in the stack gas exceeds 100 ppm BUT CHEM WASTE HAD THEIR CUT-OFF SET FOR 500 PPM HCl.

--Chem Waste’s incinerators are not licensed to burn dioxins, BUT ON DECEMBER 3, 1991, CHEM WASTE'S INCINICATOR AT SAUGET, ILLINOIS BURNED A 25-MILLIGRAM VIAL OF DIOXIN—ENOUGH DIOXIN TO PROVIDE A MAXIMUM ALLOWABLE LIFETIME DOSE FOR 322,000 PEOPLE.

The preceding list barely scratches the surface. How could these lapses, violations and pollution disasters occur? If the company can’t control its own technology, what about government? The person responsible for developing GPA’s hazardous waste incinicator regulations back in 1978 was William Sanjour. In a recent letter to a grass-roots activist, Sanjour offered several reasons why the regulations, as finally written, don’t work:[2]

"I've talked to many people who live near hazardous waste sites and I have reviewed many records, and this is the way it really works," Sanjour wrote. "Inspectors typically work from nine to five Monday through Friday. So if the incinicator has anything particularly nasty to burn, it will do so at night or on weekends. When the complaints come in to the inspector's office the next day he will call the incinicator operator and ask what's going on. He may also visit the plant but rarely finds anything. The enforcement officials tend to view the incinicator operator as their client and the public as a nuisance."

"Keep in mind that hazardous waste is a factory's garbage. If they typically ship out say a thousand gallons a month of waste solvents and they find themselves with say fifty gallons of waste PCB which they don't know what to do with, what is more natural than dumping it in with the waste solvent to be hauled away to the incinicator? No one would be the wiser," Sanjour wrote. He offered other reasons as well:

--The regulations require no monitoring of ambient air in the vicinity of the incinicator.

--It's easy for an operator to cheat because he or she produces and maintains the records.

--Government inspectors are typically poorly trained. They have low morale and high turnover. EPA statistics show that 41% of inspectors have conducted fewer than 10 inspections. "There is no reward to inspectors for finding serious violations and, indeed, zealous inspectors are typically given a hard time by their supervisors," Sanjour wrote."

* * *

Recent events at the Jacksonville, Ark., incinicator (not a Chem Waste facility) appear to follow a script that might have been written by William Sanjour.[3]

The Jacksonville site manager, Robert Apa, issued respirator masks to all employees and sent an inter-office memo April 1 ordering everyone to keep their masks handy because of dangerous “puffs” of pollution being emitted from the furnace, which has begun burning 16 million pounds of dioxin-contaminated chemical warfare wastes left over from Vietnam. Seals in the fire box are leaking, and periodically, for reasons that are not understood, pressure builds up inside the furnace, forcing “puffs” of contaminants to escape. The puffs last from 5 to 45 seconds and, of course, represent emissions that entirely bypass the pollution...
control system. The Jacksonville incinerator was constructed in the middle of a residential neighborhood, over the objection of local citizens, as a demonstration of the manly prowess of the government-industry partnership that developed during the governorship of Bill Clinton.

When news of the puffs got out, Mark McCorkle, an Arkansas state official assigned to regulate the Jacksonville incinerator, first tried to pressure the ARKANSAS DEMOCRAT-GAZETTE (the state's largest paper) not to print anything about it. McCorkle then conceded that the pollution "puffs" posed a potential hazard to workers, but denied that the public could be affected when the puffs drifted off-site to the homes that lie a long stone's-throw from the furnace. "If you were to take this memo out of context, it would appear to be a horror story," McCorkle said.

Site manager Apa stressed the difficulty of preventing the puffs. He said, "We have taken measures via procedural changes and a new interlock, to minimize the duration [of the puffs.] However, as soon as one problem is identified, another seems to appear. This last week, the slag dams caused release of unburned material onto the TDU pad."

Jacksonville citizens continue to work desperately to shut down the incinerator. A new group, Jacksonville Mothers and Children Defense Fund (JAMAC), will soon file a lawsuit seeking shutdown. They are asking groups everywhere to sign on to their suit. For details, contact Sharon Golgan at JAMAC, 1105 Wilds, Jacksonville, AR 72076; phone (501) 982-4366. Or contact attorney Gregory Ferguson in Little Rock; telephone (501) 372-0771.

After a decade of experimentation and experience, the record now indicates that hazardous waste incinerators cannot be operated safely even when the operator desires to do so. If the operators have any inclination to cut corners, regulatory officials seem unwilling or unable to bring them to justice.

--Peter Montague


Descriptor terms: epa; landfilling; groundwater; incineration; hazardous waste; cwni; explosions; compliance; carbon monoxide; co; saugt, il; il; dioxin; hydrochloric acid; william sanjour; enforcement; pcb; jacksonville, ar; ar; cbw; vietnam war; bill clinton; chicago, il;