

On My Mind

8/25/00

It's easy to support the saying: "think globally, act locally" in theory. It gets a little more difficult to act upon that adage when the problem is in your own back yard. There is a discussion under way at the moment as to what to do with the residual PCBs once they've been removed from the contaminated soil around Tanapag village. The preferred option seems to be to ship the stuff off-island - back to the U.S. The alternative is to build a temporary treatment facility on island.

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Shipping PCBs to the U.S., however, is apparently against a federal law, one that has only recently been enforced. (Earlier, tons of PCB residual had been shipped from here to the main-land without problem.) Yet finding a way to ship the residual PCB's off island, despite the legal barrier, still seems to be the method of choice, rather than exploring alternative methods of on-island destruction.

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If the PCBs were shipped to the mainland, they would either be put in a land fill or incinerated. But incinerating the PCBs is apt to create other poisons, polluting the air with even more dangerous chemicals. The other option, adding such hazardous waste to a landfill, would only postpone the day it would have to be destroyed in any case. While the PCBs would no longer be a direct hazard to the people of the CNMI, the methods of off-island destruction would release new poisons in the world at large.

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On the other hand, the proposed on-island treatment, called Fenton's reaction, according to the U.S. Army Corps of Engineers, would reduce the PCB's to a harmless substance similar to vinegar.

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The CNMI would have acted locally, but thought locally as well, ignoring the global implications of its actions.

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There is not unanimous agreement among professionals in the field that any of the choices for treating such POPs, or Persistent Organic Pollutants as PCBs, are consistently successful in destroying all hazardous substances involved. Moreover, generally speaking, the range of processes are either still experimental and/or have not been widely accepted, or are too expensive or too complex to become commercially viable. In addition, in the process itself, new hazardous substances such as dioxins may be created.

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In light of the dim outlook for finding an absolute "cure" for destroying POPs, Greenpeace has adopted a three-fold performance standard for evaluating proposed destruction technologies: (a) The treatment must result in destruction efficiencies of effectively 100 percent for the chemicals of concern; (b) There must be complete containment of all residues, and (c) There must be no uncontrolled releases.

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So far, the method to be used for the disposal of the Tanapag PCBs, once they've been removed from the soil, has not yet been decided. It is important that every effort be made to ensure that whatever technology is used matches the Greenpeace criteria as closely as possible.

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Incineration as a method of disposal has been a major topic of controversy on Guam of late. It seems that every aspect of the proposal to build an incinerator - that would not only dispose of much of Guam's trash, but would also generate excess electricity to be sold to the government - from the terms of the contract itself to the mechanics of trash collection, is under attack by some irate citizen or other. Guam's incinerator is being proposed as a replacement for its dump, which it hopes to close. (Sound familiar?)

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Regardless of the method of disposal, be it land fill or incineration, if trash continues to accumulate at its present rate, islands - and countries - will eventually run out of space to house it all. One solution - which I first read in a rather theoretical economics book, but which is now beginning to appear in a variety of environmental publications, and which Greenpeace endorses as well - is to make the person or organization or business that creates the trash responsible for cleaning it up, for re-cycling it.

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More specifically, as a newly organized group called Waste Not Asia puts it, the solution calls for zero waste through clean production and material recovery rather than materials destruction. In other words, the way to eliminate trash is not only to waste less in the production process, but also to design products so that the materials they are made from can be recovered and re-used rather than left to overflow a land fill or create dioxins through incineration.

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The focus of Waste Not Asia, a regional alliance of 12 Asia-Pacific nations, is promotion of ecological methods of waste management in general, and, opposition to the expansion of waste incineration technologies in the region in particular. The organization believes that incineration is a particularly dangerous waste management technology since incineration is a primary source of dioxins, the most potent toxic chemicals known to humankind. Other deadly poisons linked with

emissions from incinerators include heavy metals, such as lead and mercury.

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Its goal of zero waste through clean production and material recovery rather than material destruction applies equally well to everything from the production of cars, refrigerators, plastic bags and packaging materials to clothing, furniture and computers.

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How would it work? In the CNMI, perhaps the best candidate is the garment industry, which is said to be a major contributor to our mountain of a land fill as a result of the incredible amount of waste it creates. What the CNMI could have done on Saipan, and what it would behoove Tinian and Rota to do should garment factories become established there, would be to require the factories to be responsible for their own trash, rather than bringing it to the island dump. This would put the burden on the factories to reduce their waste, and to find effective, useful, ways of re-cycling, re-using the scraps they generate.

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The author of a new book, "Pandora's Poison: Chlorine, Health and a New Environmental Strategy" takes waste management one step further. According to a review in <I>Rachel's Environment and Health Weekly #704,</I> the book deals particularly with the damage to the environment caused by chlorinated chemicals (the first 12 POPs targeted by the proposed international treaty on POPS elimination are all chlorinated compounds). Author Joe Thornton's formula for controlling these wastes includes not only clean production, but also what he refers to as "zero discharge," and "reverse onus."

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A policy of zero discharge, explains the review, would prohibit the production of goods if the incineration of those goods resulted in the release of chemicals such as dioxins "that persist or bioaccumulate.... Their persistence tells us that nature does not have a means for handling them."

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A policy that imposed a reverse onus would put the burden of proof on anyone producing or using a "novel" chemical to show that the use would not result in pollution, or cause harm to the environment. Just as the Food and Drug Administration requires proof that proposed drugs are necessary and safe for use by humans before approving their release in the market, new chemical products should be proven necessary and safe for the environment before they are released in the market, says Thornton.

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Thornton's book re-enforces just how important - difficult as it may be - it is that all of us "think global; acting local."

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The next column will appear September 8. In the interim, I will be attending my second son's wedding on the mainland.