

## Book review

**Toxic Burn: The Grassroots Struggle Against the WTI Incinerator, T. Shevory. University of Minnesota Press, Minneapolis, MN (2007). 291 pp., Price: US\$ 19.95, ISBN: 978-08166-4853-5**

Rarely is an industrial plant that emits pollutants into the environment welcomed as a neighbor by a community. And if the facility produces or treats hazardous wastes, it is even lower on the acceptance scale with the bottom being facilities that burn or bury hazardous waste.

Acronyms used to describe public attitudes to such facilities include NIMBY (not in my back yard), NIMTO (not in my term of office) and NOPE (nowhere on the planet Earth). Public opposition to construction or operation of a hazardous waste treatment facility is almost guaranteed. Such is the case here where a hazardous waste incinerator (described in the book as the largest in the world) was proposed in 1980 for East Liverpool, Ohio. Data I obtained on the internet said the intention was to process 176,000 tons of liquid waste and 53,000 tons of inorganic waste per year.

The book is the story of the permit processes (both construction and operating) written from the point of view of those opposed to the incinerator. The author attempts to be objective but it is clear that he sympathizes with (and eloquently so) the nearby residents who opposed construction of the incinerator and eventually its operation, opposition that did not stop its construction and eventual operation.

I found this review difficult to write, not the least because the book is a narrative that described the permit process, the opposition to it and the pitfalls in the government's review. It was written by a professor of political science whereas all books reviewed by me to date have been written by scientists or engineers.

It is clear the author sympathizes with opponents to the plant who clearly feared that the impact of emissions and the combustion byproducts thereof would be deleterious to them. Intertwined with this concern is a review in depth of the permitting process which was acrimonious to say the least.

The company (WTI) comes in for harsh criticism for siting the incinerator within 1000 yards of an elementary school. In this public analysis, both the Ohio EPA and the US EPA are cited for lapses in the permit granting process as well as laxness in supervising the incinerator's operation.

This review is written during the preliminary stages of the US Presidential election of 2008. Currently, the presidential candi-

dates are occupied in the campaigns that will choose the ultimate Presidential candidate in the United States. One of these potential candidates is Hillary Clinton who is cited as a lawyer who worked for the firm retained by the incineration firm. Also, Al Gore, a former Vice President of the US, was criticized for failing to oppose the permit during its review period.

In spite of all the opposition to its construction, the incinerator was built and has been operating since 1983. I have not sought out or run across current information on the problems and/or successful operation of this disposal unit, but I keep a fairly close eye on the literature dealing with developments in the hazardous waste field. In this regard, I have seen nothing that indicates problems with this installation.

There is no dispute regarding the fact that a hazardous waste incinerator emits some toxic byproducts including "deadly" dioxin which is commonly regarded as the most toxic man-made compound. No incinerator project has escaped mention of that material with the raising of concomitant fears among the public. Dioxin's concentration can be controlled to safe levels but not (in my opinion) reduced to zero. Therefore, the public is concerned as any concentration of such a hazardous contaminant is feared. Personally, I found the discussion of dioxin emission in the book lacking in detail. I would have liked to have seen emission rates and concentrations compared to permit values.

Shevory does a good job of reviewing the applicable Federal Laws governing hazardous waste incineration—RCRA and CERCLA. He discusses the goals for the plant to produce energy from waste which I consider to be a good idea, but at no point in the book did I see a discussion of whether or not energy was produced.

Once a permit is granted, Shevory notes, it is extremely difficult to have it revoked. It is not that the opponents of WTI did not try; they certainly did for two decades. During this time, they have described laxness on OEPA's process of monitoring air quality in the area. In his conclusion, Shevory disputes the need for incinerators. He prefers that waste be reduced, reused and recycled. So do I, but at some point your cost exceeds your ability to carry on the former economically. There are also physical limits on the former goals, ergo the need for disposal either by incineration or landfilling.

The incinerator currently is in operation. In 2004, the OEPA granted an operating permit under Title V after passing a test run (in the fourth trial). Subsequently, the firm paid a large fine to US EPA for compliance problems.

As an engineer, I followed with much interest the long corporate path to obtain a permit for and operate a needed disposal facility. Also, as an editor, I found that Shevory's reviews of the process interesting although leaning in the opposite direction to my own thinking.

Shevory, however, writes and describes to the "nth" degree the concerns and practices of his sources, i.e., those opposed to the incinerator, which were many. These were sincere but generally nontechnical opponents.

I was interested in what has happened recently and what information existed in the public domain, so I turned to the internet and 465 citations. (I understand there are more, but that was the limit of what was easily accessible.) To the best of my knowledge, the incinerator is still operating.

I found the book extremely interesting. It was different to read something written by a nonengineer who, along with those opposed, gave their reasons for that opposition.

Gary F. Bennett\*

*The University of Toledo, Department of Chemical and Environmental Engineering, Mail Stop 305, Toledo, OH 43606-3390, United States*

\* Tel.: +1 419 531 1322; fax: +1 419 530 8086.

*E-mail address:* [gbennett@eng.utoledo.edu](mailto:gbennett@eng.utoledo.edu)

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