

# **Policies for Efficient and Equitable Municipal Waste Management in the Delaware County**

The American Ref-fuel Trash Incinerator, located in Chester, Pennsylvania, burns nearly 1.5 million tons of waste from five states per year. Delaware County provides most of this waste through a system that is neither efficient nor equitable. Current regulations and inflexible agreements inhibit the county's ability to arrive at the correct determination of the efficient levels<sup>1</sup> of waste processing. In addition, management failure and insufficient information have allowed waste facilities to unfairly burden the residents of Chester with a variety of negative externalities. A combination of five policy implementations can create an efficient market system that equitably assigns the costs of waste processing to waste producers themselves, not just the residents of Chester.

Several current regulations and contracts inhibit the Delaware County's ability to arrive at a determination of the most efficient level of municipal waste processing and pollution. First, Delaware County has an agreement with the American Ref-fuel Trash Incinerator to supply it with a pre-designated amount of trash; anything less would require the county to pay the incinerator a fine. The county's historical difficulty with acquiring this quantity of waste indicates that it is probably above the actual demand for waste processing, but, to avoid fines, the county is in the position of *encouraging* trash production. In fact, municipalities generally charge a flat fee for trash pickup, implicitly telling residents and businesses that the quantity of their waste production does not matter because they will pay the same amount no matter how much trash they produce.<sup>2</sup> Second, state emissions regulations and permit limitations on trash processing also set false boundaries for the amount and kind of waste processing the facility can perform. While the American Ref-fuel incinerator will probably never have trouble with its generous permit to incinerate a seemingly inexhaustible 2,688 tons of trash per day, violations of state emissions regulations have amassed

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<sup>1</sup> By "efficient", I mean the most cost-effective manner of dealing with municipal waste on a societal level.

<sup>2</sup> In Aston, for example, the fee is \$120 per household annually, (*Delaware County Daily Times*, December 21, 2001. [www.zwire.com/site/news.cfm?newsid=2820538&BRD=1675&PAG=461&dept\\_id=18171&rfti=8](http://www.zwire.com/site/news.cfm?newsid=2820538&BRD=1675&PAG=461&dept_id=18171&rfti=8)), while Darby charges \$110 (*Delaware County Daily Times*, December 28, 2001, [www.zwire.com/site/news.cfm?newsid=2857342&BRD=1675&PAG=461&dept\\_id=18171&rfti=8](http://www.zwire.com/site/news.cfm?newsid=2857342&BRD=1675&PAG=461&dept_id=18171&rfti=8))

over \$400,000 in fines.<sup>3</sup> Such regulations do not account for the possibility that the most efficient level of pollution on a societal level might exceed the amount of pollution the incinerator is allowed to emit.<sup>4</sup>

Such a stance would be disheartening to the residents of Chester who, due to poor resource management and insufficient information, are unfairly burdened with the negative externalities of the incinerator's operation and would like nothing more than to see the incinerator completely shut down. The negative externalities generally are of two kinds: 1) health risks from the incinerator's emissions, including lead poisoning, dioxin contamination, and respiratory disease<sup>5</sup>, and 2) detractions from the residents' quality of life including noise pollution and property damage from the high volume of truck traffic, the obvious stench, and the hideous panoramic backdrop of an urban wasteland, all of which result in plummeting property values. Although the incinerator does provide 110 jobs, 72 megawatts of power, annual fees to the city government, and emissions fines to the state government, none of these benefits are necessarily directed to the residents who are affected by the externalities of the incinerator's operation. Since, for the sake of efficient job and energy markets, the jobs and electricity the incinerator generates should not be and are not guaranteed to the residents of Chester<sup>6</sup>, they cannot be considered equitable compensation for afflicted residents. Fee/fine payments do, however, have the potential to compensate these individuals, but mismanagement has failed to direct the funds to improving the neighborhoods of those directly affected by the incinerator or into addressing the health hazards caused by its toxic

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<sup>3</sup> Murray, Andy. "Waste Treatment Facilities in Chester", [www.sccs.swarthmore.edu/org/speec/facilities.html](http://www.sccs.swarthmore.edu/org/speec/facilities.html), 1996.

<sup>4</sup> This possibility that it might be best for the incinerator to burn *more* trash does not contradict the possibility that Delaware County might want to produce *less*, because the incinerator has the option of burning waste from locales other than Delaware County. The point is that regulations and contracts are inflexible, not that more or less trash is good or bad.

<sup>5</sup> Howington and Viola, "Health Effects of Pollutants Released by Facilities", [www.penweb.org/chester/health\\_chems.html](http://www.penweb.org/chester/health_chems.html), 1996. The EPA has found in a preliminary risk assessment model that "cumulative carcinogenic risks and non-cancer threats are predicted to exceed levels considered safe at several locations in Chester City...DuPont and Westinghouse [now American Ref-fuel] account for approximately 80 percent of the non-cancer risk." (EPA Report, unofficially posted online at [www.penweb.org/chester/epa-sum2.html](http://www.penweb.org/chester/epa-sum2.html))

<sup>6</sup> Howington interviewed waste facility management about employment at the incinerator ([www.sccs.swarthmore.edu/org/speec/facint.html](http://www.sccs.swarthmore.edu/org/speec/facint.html), Summer 1996). Energy is sold to the Atlantic City Energy Company, not the local PECO.

emanations.<sup>7</sup> A lack of information about the linkages between specific emissions and particular health concerns has added to the inability to appropriately compensate for health risks.

In order to create a system that is both efficient and equitable, the following policies should be implemented (in order):

- 1. Risk Assessment Study:** The EPA should complete its 1994 risk assessment study of the various health hazards derived from the incinerator and other local facilities.
- 2. Reallocation of Compensatory Fees:** The city of Chester should allocate fees collected from American Ref-fuel in such a way that the quality of life of the neighborhoods most local to the incinerator is prioritized. Projects might include road improvement, repair and enhancement of damaged property, park and mural creation, litter pickup, and other activities as decided upon by the local community.
- 3. Alteration of Trash Supply Contract:** Upon the next review of the contract between Delaware County and the American Ref-fuel Trash Incinerator, the county should replace its legal obligation to supply trash to the incinerator with a fee-for-service system in which it pays for the trash it produces rather than the trash it does not produce.
- 4. Per Unit Trash Fee:** Municipalities should establish per unit trash collection fees to replace the current flat-fee system. Such a system has been encouraged by the state for six years.<sup>8</sup>
- 5. Deregulation:** The state should soften regulations on pollution emissions from

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<sup>7</sup> City fees have, according to the former mayor, stayed a tax crisis. While increased taxes is not in the interests of the residents who live across the street from the incinerator, these residents in effect have to share their compensation with others who would have been negatively effected by such a crisis. Interestingly, the mayor himself admits that Chester still has the highest taxes in the state, a mystery given the fact that the incinerator lines the river alongside a host of other tax-producing waste facilities.. (deProphetis, Cindy Scharr. "Two City Voices Respond to 'Corrupt' Label", *Delaware County Times*, February 19, 1998.)

<sup>8</sup> "Pennsylvania promotes unit pricing for trash collection services. The ability to control collection costs is a financial incentive to recycle and eliminate or reduce waste at its source. Although most of the state's collection services still charge flat rates that provide no incentive to reduce waste, approximately 200 charge by the unit (bag or other container)." [Pennsylvania Department of Environmental Protection, "Executive Summary of 1995-6 Act 101 Annual Report", September 1996, [www.dep.state.pa.us/dep/deputate/airwaste/wm/recycle/DOCUMENT/101\\_summary.htm](http://www.dep.state.pa.us/dep/deputate/airwaste/wm/recycle/DOCUMENT/101_summary.htm)]

the incinerator. This part of the plan can occur only after other parts have been completed, because regulations do currently serve the purpose of protecting, albeit clumsily, the public against unknown costs of waste disposal.

These policy implementations will combine to create an efficient and equitable system for waste management in the Delaware Valley. Perhaps the most important and difficult component of the plan is the risk assessment study, which will create the foundation of information upon which individual damages can be determined. Once the actual costs of facility's operation are clear, it will be in the position of either paying for the damages outright or opting for cost-cutting measures such as improving preventative health facilities and education in the city or *voluntarily* lowering emissions. Although such a study will be initially costly, it will save money in the long-run because the state will not need to be concerned with enforcing regulations anymore and can cross-apply the study to similar situations in a cost-cutting manner elsewhere. Paying for damages and preventative health measures will ultimately raise the cost of incineration, which American Ref-fuel, by means of the new contract, can place upon the county. The county, in turn, can now issue a \$120 per household tax break since they no longer need to collect trash fees and use the new per unit fee system to extract payment for waste processing directly from residents and businesses, who now have individual financial incentives to control their waste production. Some may opt for purchasing an incinerator home appliance (They do exist!) or trash compactor, while others will find that a previously dismissed education about "reducing, reusing, and recycling" comes in handy.<sup>9</sup> This ultimate assignment of cost to the waste producers themselves not only creates a scenario far more equitable than the status quo but also combines with the removal of regulatory constraints to create a market for waste processing that can arrive at the most efficient societal outcome.<sup>10</sup>

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<sup>9</sup> One unfortunate difficulty of this plan is that still others, particularly the poor, will opt to not dispose of waste properly at all, dumping it in abandoned lots, as a way to save money.

<sup>10</sup> The proposed plan may increase costs of waste disposal for most residents of Delaware County *but* these costs would be compensating residents of Chester for the costs of the externalities they presently face. In the end, the market approach should find an outcome that costs society as a whole (i.e., the aggregate of *all* the residents of Delaware County) less than the status quo.