

## Health impacts, Part II

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Garbage in, garbage out. The Maine Energy Recovery Company incinerator in downtown Biddeford processes an estimated 280,000 tons of waste each year. A portion of that waste, no one knows how much, contains toxic compounds harmful to human health.

MERC officials contend the vast majority of those compounds are either destroyed in the incinerator or captured in its pollution control equipment. Those officials point to stack emission tests conducted by state and federal authorities and a 1996 health risk assessment study to demonstrate that the threat posed by the facility is well below acceptable standards.

Critics argue the stack tests and health risk assessment results are dubious and were conducted according to methods favorable to MERC's position. As reported in the previous article in this series, MERC is set to fund an update to the health risk assessment conducted by Cambridge Environmental, Inc., and reviewed by a firm to be chosen by the City of Biddeford.

The critics are not assuaged. Members of Twin Cities Renaissance, committed to the closure of the facility, point out the study is predicated on the very stack test results they believe to be flawed. Other critics, like Ron Deprez, president of Portland-based Public Health Research Group, maintain such a study evaluates the facility's effects in isolation and without consideration for other environmental factors.

Deprez said the best method for evaluating the effects of the incinerator on the community's health would be to conduct a comprehensive health study.

### The life and death of a health study

The idea to conduct a comprehensive health study was raised by former Biddeford and Saco mayors Donna Dion and William Johnson in 2000.

According to Edward McGeachey, president of Southern Maine Medical Center, the mayors approached him about the feasibility of performing a study, 'to address the persistent concerns of citizens about air emissions from the Maine Energy Recovery Company incinerator in Biddeford.

It was not the first time city officials had asked SMMC to study the state of the communities' health and the possible effects of the incinerator.

"Around 1994, 1995 the Biddeford City Council asked us to look at available health data and emissions data. We took a look at all of the data at the hospital and the Bureau of Health," McGeachey said. "We covered the waterfront. We looked at cancer, emphysema, and asthma rates. We secured air quality data. The data suggested no identifiable air quality issues."

When the mayors approached McGeachey again in the spring of 2000 to conduct a more comprehensive study, McGeachey agreed and together with Dion and Johnson formed an Ad Hoc Committee to explore the idea. Also on the committee was Dr. Steve Shannon, dean of the University of New England College of osteopathic Medicine and Dr. Terry Sheehan, medical director of SMMC.

McGeachey and Sheehan began looking for models to emulate. The two contacted Shannon at UNECOM and met with the Maine Bureau of Health and Cambridge Environmental, which had conducted the health risk assessment four years earlier.

"[We] realized that the study we needed exceeded the technical resources of UNE and SMMC," McGeachey said. After recommending to the mayors that an outside firm should be hired to conduct the study, the committee soon settled on Deprez's firm, PHRG.

After six months, PHRG had completed the study's design.

The study, as presented by PHRG, would be far more exhaustive than anything undertaken. The study would include a survey of the population's health issues using detailed field interviews of a sample population. Air and soil samples were to be collected throughout the area to measure the levels of particulates. An inventory of all pollution sources was to be conducted. Abstracts of hospital intakes and discharges, mortality rates, outpatient and inpatient record would be collected not only from SMMC but from health care providers throughout the region. The study would be ongoing, updating the information constantly and revising the study annually.

The project was estimated to have an initial cost of around \$800,000 for the baseline study and \$250,000 per year after that.

The two city councils declined to pursue the study after a joint meeting in January of 2001.

### Proving cause and effect

Another aspect of the health study noted by those interviewed was it would not focus on MERC.

As a number of people pointed out, matching an effect [health issues] with a cause is a difficult link to establish. Too many other factors can have effects on health to show a definitive connection, they say.

"If you're looking for a smoking gun, a health study is not the way to go," McGeachey said. "As Deprez said at the time, a study like this can't pick on one industry. Often you find it's not the thing that's causing the problem."

Saco Mayor Mark Johnston agreed.

"One problem with epistemological studies is they are inconclusive; there's no smoking gun," Johnston said.

"There are too many other factors in play: lifestyles, socio-economic factors, health insurance coverage, and other pollution sources," Johnston said. "This population has a high instance of smoking and a relatively low socio-economic demographic, those things contribute to poor health."

The mayor also noted the history of the region. "This was no virgin forest [before MERC]. In 1658 some of the first mills appeared, by 1700 you had foundries. For nearly three centuries this area has been industrialized. One of the reasons the site was picked is it is in an industrial zone.

McGeachey remembers growing up in Saco and being forbidden to play in a brook that ran near his home because of the level of pollution.

Jeff Meyers, a private attorney who works with Biddeford on environmental issues says that it is possible to show such associations. "There have been health studies that have shown cause and successfully identified the source of a particular disease," Myers said. "There's reason to believe, if done properly, that could be demonstrated here."

Deprez also said such a connection is not out of the question. "A health study would have shown evidence of effects from local sources of pollution."

For Johnston, the view that, given the various historical and current source of pollution, it would be difficult to establish causation between health problems and MERC's processes, the cities should focus on more productive ways to close the plant.

"It would be a waste of limited resources. It would be wiser to use those resources to get rid of the facility," Johnston said.

TCR, in an email statement, largely echoed Johnston's position.

Instead, TCR proposes better monitoring of the plant's emissions, including continuous monitoring of toxic metal emissions, such as mercury.

Ken Robbins, MERC's general manager said mercury emissions monitoring have been part of the continuing discussions with Biddeford and Saco.

### A question of resources

McGeachey, whose emphasis on public health looks beyond the framework of MERC.

"Our recommendation, given the communities concerns, it would be well worth the money to reassure people," McGeachey said.

McGeachey also acknowledged the political and financial realities touched on by Johnston and TCR, "It is only one of many priorities a community has and resources are limited."

While his ad hoc committee explored the health study design on behalf of the city, McGeachey said SMMC absorbed the costs once the city councils declined to pursue the initiative. In addition to the "sweat equity" invested in the project by McGeachey, Dr. Shannon, Dr. Sheehan and others, PHRG billed the hospital \$35,000 for the preliminary work.

The city councils cited the associated costs as the reason for not funding the study, it seems clear the fact that the study would not and could not focus on MERC was a contributing factor.

"Rather than go in this direction, the councils decided to pursue other options," McGeachey said.

“They decided to sue rather than pursue the study,” Deprez said.

McGeachey also said that it is far from clear that there is a problem to begin with.

“Experientially, if really bad things are happening [to a community’s health] it becomes apparent. It’s not the right way to find a problem, though,” McGeachey said.

Last month, SMMC released its annual cancer study, which showed the community’s cancer rates mirror the national averages.

A health study, like the one described above, McGeachey said, may help spot health trends before they become apparent. “Knowledge is power,” he said.

Deprez agreed, “Biddeford and Saco have no public health system, no ability to track health issues. It would be a benefit.”

For Johnston, the harm being done by MERC is apparent.

“The facility is harming the community—truck traffic, image-wise, economically. I ask that we take a holistic approach about whether we should have this industry in the middle of our communities when there are other disposal options that we did not have 20 years ago.”

None of the people interviewed said they were aware of any effort to revisit the health study option, though some would like to see it go forward. “If they are interested in doing a health study, the methodology is sound. We can pick up where we left off,” McGeachey said.