MERC In Focus

Environmental impacts

By Ward Peck
Staff Writer

However the Maine Energy Recovery Center found its way into downtown Biddeford, it is here. A 60-acre waste incinerator in the middle of an urban setting undoubtedly has an impact on the community. What has it cost the communities? How has it benefited the community? Among the various parties interested in the MERC facility, costs and benefits are perceived and weighted differently.

Some of those impacts, like jobs, tax revenue and low waste disposal fees, are expressed as benefits and are easily measured. The costs are often more difficult to quantify. How does one measure the loss of prestige associated with being referred to as Trashtown, USA?

Among the costs being debated is the extent of the environmental impact of the facility.

Biddeford Mayor Wallace Nutting described the issues involving the health and safety of citizens of primary importance in the city's negotiations with the company.

The environmental issues surrounding the plant are many and complex. Not all have a direct effect of the health of the area's citizens, water, land and air. These non-health-related issues can be thought of as "nuisance" pollution or "quality of life" pollution and constitute the facility's most perceptible shortcomings, such as odor, noise, traffic and infrastructure degradation.

Saco Mayor Mark Johnson, an outspoken critic of the facility, offered a litany of nuisance pollution issues surrounding MERC since it began operations in 1986, from ash releases to excessive noise to a persistent odor-control problems the exist to this day.

At each step Johnston said he found the owners of the plant, first Kuhr Technologies, Inc and now Casella Waste Systems, to be sensitive to community concerns, addressing issues quickly and investing significant amounts of money on solutions. "They have spent hundreds of millions of dollars trying to correct deficiencies," Saco's mayor said.

MERC's general manager, Ken Robbins, while appreciative of Johnston's generosity doubts the two companies have spent that much, putting the investments on the order of tens of millions.

The mayor mentioned a number of issues that have been resolved by the companies, from removing an outdoor public address system, to moving noisy and smelly processes inside the buildings to investing in new technologies to reduce odor. The degree of success each remedy has achieved varies.

WHAT IS THAT SMELL?

As a facility steeped in garbage, MERC has dealt with a public perception as a producer of noxious odors. The problem is especially prevalent on hot, humid summer days due to increased truck traffic and the fact that organic material in the garbage decomposes more quickly in hot weather.

Robbins acknowledges that odor is a persistent problem that has resisted attempts to overcome it. "With varying levels of success. We have attempted to resolve the problem," he said.

According to Johnston, one of the early efforts bordered on the comic.

"They hired a company to put a deodorizer on the outside of the building. This system would spray a pine-scented mist around the outside. It was like putting one of those pine-tree air fresheners on the outside of an outhouse. It just smelled like garbage and pine, some people had bad reactions to the pine scent."

Other remedies reduced but never eliminated the smells. Company officials concluded the trailers holding glass, grit and residue from the fuel production process were significant sources of odor pollution. The trailers were moved inside and a policy of removing the trailers from the premises on a set schedule was instituted, Johnston said.

Some odor control practices have created other problems. In the early 1990's, MERC sealed the tipping building where unprocessed garbage is stored and installed an air lock system.

Sealing the building led to a buildup of carbon monoxide. For a number of years the company overcame this problem by shutting down production or venting the building in the middle of the night, Robbins said. Some years later, the federal Occupational Safety and Health Administration ruled the carbon monoxide level a threat to employee health and the company's practices inadequate. The new practice resulted in more odorous exhausts.

In response, the company installed ventilation and odor control system designed to overcome the air quality issues inside and outside the building in 2001.

The odor control system's design called for three exhaust stacks to be built to a height of 148 feet above ground level.

During the permitting process, the Biddeford Planning Board rejected the company's variance request and required the stacks to be no more than 120 feet high.

Robbins contends the reduced height has severely restricted the stacks' ability to disperse the smell.

Pointing to an engineering study performed by MERC, the lower stack height allows odorous air venting from the stacks to get caught in a low-pressure air cavity produced when wind goes around a large building such as the MERC facility, pulling the odor to ground level. The higher stack, would release the air above this cavity and dissipate, Robbins said. Computer models demonstrate perceptible odors released from the stacks would be virtually eliminated.

The company is still interested in increasing the stack height.

Nutting said the ventilation stack height is one element of the negotiations between the city and the facility.

Biddeford's mayor said negotiations are focused on getting the agreement right, rather than getting it done quickly. Any agreement that includes an increased stack height would still require the facility to apply for variances and planning approval, Nutting said. As a result, any solution could be years away.

Robbins concedes that even the optimized system would not eliminate odors. Trucks lined up to tip their loads are once source that is not neutralized and some air escapes from the building when doors are opened.

Johnston said the odor is very much a function of the increased tonnage being brought to the facility. 'Odor is a function of temperature, number of deliveries and tonnage," Johnston said. "Every time those doors open, odor escapes, the more they're opened, the more opportunities for odor to escape."

GARBAGE ON PARADE: TRAFFIC

"There is no doubt in anyone's mind that a 20 ton truck affects the condition of the road," Johnston said. But, Robbins flatly rejects the accusation that the trash hauling trucks going in and out of MERC have a disproportionate effect on the infrastructure.

Pointing to another study done by MERC, Robbins said the 200 trips into and out of the facility account for 2.8 percent of the 7,140 commercial vehicles going through Biddeford on an average day.

"Every truck leaving here meets the weight limits," Robbins said.

Robbins disputes that such a low proportion of the commercial traffic could be held accountable for infrastructure degradation.

The study does not include breakdowns of commercial vehicles by weight class. Representatives of Maine Department of Transportation said they would need such information to evaluate the competing claims. A call to the consulting firm HNTB that provided data for the study was not returned.

Pointing to damage to roads and sewer cave-in, Johnston asked rhetorically, "Can you tie these issues directly to MERC? Probably not, but there is something about those trash trucks. They ride differently." Johnston said "I can stand outside and tell you whether a truck is carrying glass and grit, non-ferrous metal or trash."

Johnston, who lives on the main traffic route to the facility, says he and neighbors experience windows that rattle to the point of breaking, foundations cracking and chimneys in danger of toppling from the trucks vibrations.

The mayor also said that any savings the city enjoys from low tipping fees is exceeded by added costs to repair infrastructure damaged by MERC traffic.

Johnston does not blame MERC entirely. A Biddeford traffic ordinance instituted in 2002 requires all traffic exiting MERC to proceed north on Elm Street into Saco.

"I want to thank Biddeford for their neighborly, good-sisterly policy of rerouting all trash through Saco. They may smile and think its funny, but it strains relations," Johnston said. "It is Biddeford that chose to have the plant, that receives the lion's share of benefits and has been lax about requirements and obligations, to make that change is not neighborly."

Johnston said the change was made in retaliation for Saco's pursuit of a separate peace with MERC, instead of bargaining collectively with Biddeford. "It's a carrot to Saco to get on board."

Johnston also said the rerouting breaches contractual obligations about established truck routes. "They have breached that agreement, but lets get past that and negotiate in good faith," he said.

MISSION VIRTUALLY ACCOMLISHED: NOISE

Noise pollution issues related to the MERC facility can generally be described in the past tense, but the problems clearly damaged the facilities perception in the surrounding communities.

"The noise from the facility was unbelievable. They had an outdoor P.A. system that was really loud. You would hear, 'Frank, please come to …wherever'. I don't know who Frank is and I don't care where he's wanted, but I heard about it," said Johnston who owns the Vic and Whit's delicatessen on Main Street in Saco and lives on Elm Street, "as close to MERC as you can get in Saco."

"The non-ferrous metal [removed during fuel processing] was stored outside. It made an incredible racket when it was dumped in the dumpster," Johnston said.

KTI removed the PA system fairly quickly, Johnston said.

In 1990, MERC instituted a noise study. The plant was shut down to measure background noise. Each element of the process was isolated and measured for noise. As a result of that study, processes were moved and dampers installed.

Robbins said that the company is very serious about minimizing noise pollution. "Anytime we add a system or change a process we assess the impact on noise levels," Robbins said. He said that the company does not receive noise complaints, except for an individual in Saco who claims to have "super-hearing." Robbins said the company has attempted to allay the person's concerns by inviting her to the plant and sending representatives to her home, but has not figured out what she is hearing.

A noise issue that continues to the present is the sound created when the air pressure relief valve connected to the boiler is opened. Described as akin to the sound of a jet engine during takeoff, the sound is superheated, high-pressure steam being released in the event of a turbine failure.

Jim Secunda, MERC's environmental control officer said, "when the turbine is taken offline suddenly the steam that drives the turbine must go somewhere, so it gets released."

Robbins couldn't remember the last time the valve was opened. Noting the potential cost of a turbine failure, Robbins said, "If that valve goes, we have bigger problems than a lot of noise."