

NEW ENGLAND EXPERIENCES WITH BIOSOLIDS EMS

Brad Moore, Superintendent at Bangor WWTP, Discusses His Experiences with the National Biosolids Partnership's Biosolids Environmental Management System (EMS)

Bangor's wastewater treatment plant had a long history of composting biosolids:

Starting in 1974, the then primary-only solids were composted near the airport for almost 20 years. When secondary treatment was added to the plant, the sludge volume became too great for the composting site and the city decided to contract out the use or disposal of its biosolids. At that time, in the early 1990s, the City Council was concerned about landspreading, because of recent public issues in a neighboring town. The Council requested that two options for biosolids disposal be considered, composting (preferred) or landfilling. The contract started

with landfilling, but then the company that became New England Organics started composting Bangor's biosolids at their Hawk Ridge Compost facility in Unity after a long term contract was signed. In 2004, Bangor signed a letter of understanding with the National Biosolids Partnership (NBP), committing to creating an Environmental Management System (EMS) for Bangor's biosolids program.

"I'm always interested to see if we can do something better. I knew the EMS would expose things we were doing well, as well as areas where we could improve."

What were the biggest concerns about committing to the program?

"The initial concern was the amount of time to do this. There's plenty else that needs to get done. We could see the possible benefits, but did we have the time to put into it? After signing up, we actually got side-tracked for some time with another issue, but now we are back where we want to be, focused on the EMS program again.

"What's important

to remember is that, yes, you have to put in time and effort, but the NBP provides sample EMS manuals that make the development much easier. There's no need to reinvent the wheel – a lot of the work is done and you pick and choose what you need for *your* program – that has really helped us. Each agency has a contact that the NBP provides to assist you through the process. And the other thing is, we know we're going to invest some time, but if it helps us to be better managers, provide more benefit to the town, and

be better environmentalists, it's worth it. Plus, by having better systems in place, you'll be saving some time later on, whether dealing with standard or emergency procedures.

"There was one "Ah Ha" moment when we realized that we do not have to fix everything that the EMS exposed right away – we can just bite off a bit at a time. Initially, we were digging way too deep into our operation, and it was becoming a mountain. We stepped back and took a more realistic approach, and this, along with the sample EMS manuals, has allowed us to make good progress. We're now approaching the scheduling of our internal audit."

"Developing the EMS program has required time, but it has been worth it – both in-house and with relations with our neighbors. I appreciate having a system that people outside our industry recognize, and we are being proactive in protecting the quality of our biosolids and its ultimate end use."

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Have there been benefits so far?

Brad highlights situations where Bangor's developing EMS program has provided benefits already:

- “We always thought we had a good relationship with our neighbors, but the EMS has helped us be better communicators with them. Now we contact neighbors before doing maintenance operations – we're more proactive and talk to them before we might have an odor release, so they can plan for it. Odor issues can create bad feelings for a long time, so we're doing better at avoiding that.”
- “Last spring, there was a fuel oil leak upstream and some fuel oil came into the plant. Because of the EMS, we had a stronger system in place to react to the situation: we called New England Organics (NEO); we segregated the sludges; and the tainted sludge was tested. In the past, the operators did not have clear directions as to what to do in this kind of situation. Now, because of talking with NEO and hearing their concerns, we have a system to follow that worked well.”
- “The EMS has helped bring us and NEO together onto the same page, making sure we coordinate around any problem.”
- “In the past, we relied on institutional knowledge – we need to have procedures clearly written out, so that the next people coming along will know where to start. Now we are getting our standard operating procedures (SOPs) and emergency procedures on paper.”
- “What we're also looking for in this program is making sure that we are planning well for the future, for capital projects. I have more ammunition now when I'm asking for money for something, because if the recommendation comes out of the EMS process, it means it is well thought out and needed.”
- While the Maine Department of Environmental Protection (DEP) has not said much about the EMS for biosolids program, Brad reports that “the DEP inspector for the plant knows what we are doing and has had a positive reaction – they want us to be as proactive as we can.”
- “The EMS has helped us shift our attitude about public relations – and that shift has spilled into other areas besides just biosolids. Because of that, the return has been great.”

“Because of the EMS, we had a stronger system in place to react to the situation...”

How have supervisors and elected officials reacted?

“The EMS program creates an opportunity to have elected officials appreciate and understand what the plant is doing – four of the nine Councilors were really excited about the EMS and supported us spending the extra time and effort on it. You have to get them to buy in;

some may not, but most will be supportive. I told them right up front about the \$15K - \$20K cost for the audit. The Councilors said that it was okay, because they recognized the benefits. They saw that this was important enough, and the occasional expense is acceptable.”

In conclusion:

“We have a biosolids program that is not raising any red flags. But I still think the EMS is useful for our community.... There are always things that come up - always odor issues. We are demonstrating that this town is progressive, doing the best it can to protect the environment. I think it is worth it.”

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