

How to Design for Current Water Regulations

Roundtable Panel Discussion

February 26, 2013

New England Aquarium IMAX Theatre

Host and Moderator: Gary Broberg, CEO, Practical Applications

Guest Panelists:

- Kathleen Baskin
Director of Water Policy, Executive Office of Environmental Affairs
- Joseph Cerutti
MassDEP
- Justin Pimpare
EPA New England
- Wayne Thomas
Associate Executive Director, Board of State Examiners of Plumbers and Gas Fitters
- Peter Yarossi
Regional Manager, Industrial Coordinators, Massachusetts Water Resources Authority

Summary of Discussion:

Initial Remarks:

- Kathleen Baskin: DEP has issued the first-ever regulations for reclaimed wastewater. MA is interested in keeping the water footprint as small as possible. The focus is on public and privately owned facilities being ready for climate change. For example, NY is updating the building codes, resulting in some wastewater treatment and utility operations to be moved out of the basement. Also, Governor Patrick is promoting his new initiative on water innovation.

Greywater:

- Question from audience: Is there any plan to review the contradictions/inconsistencies between regulations?
 - Kathleen Baskin: No answer.
 - Justin Pimpare: MA has stringent regulations in comparison to other states. To get answers, contact each local municipality. There is no “top to bottom” coordination.

RO Reject:

- Joe Cerrutti: Haven't come up with threshold limits (as far as volume). Dealt with on case-by-case basis. Goal is to remain flexible, as not every point of discharge has same concerns. Nothing available in writing on acceptable threshold levels.
- Gary Broberg: If NPDES or MassDEP permit is denied, then what?

- Joe Cerrutti: If UIC registration is denied, pre-treatment might be required. If that can't be done, need the municipal sewer or offsite disposal, or apply for NPDES groundwater.
- Peter Yarossi: Officially, RO reject discharge limit is zero. Permit says that you have to investigate all possible ways to get rid of it before you are allowed to put the water into the sewer system. Contact MWRA during design phase to work together on best possible solution.
- Question from audience: Where to start? Who to go to with these cases?
 - Peter Yarossi: Come to us. Visit the website for municipal coordinators. They are listed. Go to them, preferably in the design phase.
- How long does it take to get a NPDES permit?
 - Peter Yarossi: 6-8 weeks for an MWRA discharge permit.
 - Justin Pimpare: NPDES permit takes much longer. The best way to deal with these issues is to find the appropriate contact on the website, get in touch with that person, and build a relationship. The first permit might take longer, but once you know how the system works, it will get easier and go faster.
 - Joe Peluso: sanitary fixtures discharge to sanitary. For that, you would need a variance, which takes about 2-4 weeks.
- Question from audience: IF I have a UIC registration, do I need a groundwater permit too?
 - Joe Cerrutti: No. Keep in mind that a groundwater discharge permit is more expensive – there are annual compliance fees, registration fees, etc.
- Follow-up Question: What if the subsurface infiltration system has potential to overflow to surface water?
 - Joe Cerrutti: You could need 2 permits – potentially a surface water NPDES for overflow. Where should treated wastewater go (e.g. filter backwash, etc.)? Can I use it in the building?
 - Joe Cerrutti: There are specific regulations for the use of cooling towers and toilet flushing. Must meet pre-treatment requirements. Depends on where the reject water will go. MassDEP Re-use regulations 314 CMR 20.
 - Joe Peluso: In this case, you could come talk to the board and apply for a variance.
- If I can't take it to sanitary, do I have to take it to storm? Is a permit needed?
 - Justin Pimpare: NEDPS permit is needed if it is discharged into a public water source. You may have to go to storm and get a variance.
- Do you need a variance if you have Clearwater waste.
 - Joe Peluso: Depends.
- What about new EPA regulations pending? Will they make it harder?
 - Kathleen Baskin: Speak with the EPA and the municipality. They won't want industrial waste put into their system.
- But it depends on how you look at reject water – backwash from filters, etc. Is there a clear definition?
 - No industrial wastewater can go into storm. Treated industrial process water considered greywater.
- Not having regulations and definitions makes it very difficult to design.

- Joe Cerrutti: There is a list available of allowable non-storm water discharge uses.
- To be innovative, we have to tackle these problems – and we have to work together, designers and regulators – keep lines of communication open.
 - Peter Yarusso: We will work with you.
 - Gary Broberg: Success is easier on a case-by-case basis. The intent is that we all want to reuse this water, We are all together on that. But we have to work together.
- Is cost a consideration for the regulators?
 - Peter Yarusso: Your cost is not supposed to be a consideration. We are reasonable, but we have to follow the regulations.
 - Joe Peluso: The board takes health and safety concerns above all else.
- Any discussion about implementing cost-incentive programs?
 - Kathleen Baskin and Peter Yarusso: No.
- Processed water: Where should floor drains in a lavatory go?
 - Joe Peluso: Sanitary.
 - Peter Yarusso: Waterwater treatment. Need a variance.
- What about Clearwater waste to a blow-down system? Or a floor drain in a fire pump?
 - Joe Peluso: blowdown goes to storm, not sanitary. Because of the seal on the fire pump, that goes to sanitary. Keep in mind if you need a variance, the board has expedited the process. It doesn't take as long as it used to.
 - Joe Cerrutti: Private sewer is more complicated.
- We engineers have done such a good job saving water that we now have problem with dried drains. What to do?
 - Joe Peluso: Not aware of issue.
 - Kathleen Baskin: Designers need to consider the strength of wastewater – quantity and quality.
- Issue of BOD and TSS. Municipalities have stopped expanding treatment plants. In many places, you can no longer pay as you go. There are limits.
 - Justin Pimpare: Every treatment plant has design loading for BOD and TSS. Now the permit says that once you reach 85% of capacity, you need to build a bigger facility.
 - Joe Cerrutti: Meters are allowed with the Title V program.
- Dental Activites:
 - Justin Pimpare: Eleven states (including MA) have passed legislation requiring dental offices to install an amalgam separator. Once it is installed, you have to maintain it.
 - Questions on specifics of amalgam separators. 98 or 99% limit?
 - Kathleen Baskin: Any EPA limits are already being complied with in MA, as our regulations are more stringent than in other states.
- How to deal with liquid discharge from garbage disposal?
 - Wayne Thomas: If it is located outside the building, it is outside the plumbing board's jurisdiction. Go to municipality.
 - Peter Yarossi: Goal is to minimize storm water. May need to cover it, separate it, etc.
 - Wayne Thomas: It should be sanitary.

- Where does overflow of greywater tank go?
 - Joe Cerrutti: Rainwater cistern outside of building: can go to municipal stormwater system, if you have a stormwater connection option.
 - If co-mingled:
 - Peter Yarossi: in the building, goes to sanitary. Be aware if it is co-mingled.
- Definition of greywater?
 - Joe Cerrutti: UIC registration: can approve a wider range of discharge options than stormwater.
- Recovered rainwater: what permits are needed for re-use?
 - Joe Cerrutti: for 100% consumed, you need a re-use permit. No permit needed if it can go into the blowdown system.
 - Joe Peluso: Dedicated system. Alan Slater at the DEP has said that certain types of re-use don't require a permit, e.g. clean stormwater used for irrigation.
 - Joe Cerrutti: Permitting requirements depend on source water and whatever has been added to it.
 - This refers to rainwater used for irrigation only.
 - Roof drains are outside, 10 ft away from the building – it is out of plumbing boards jurisdiction.

