Winter 2025

Solid Waste News

ENVIRONMENTAL SERVICES

Winter weather is here!

Hard to believe that most of the state had gotten through the winter without a major snowstorm until this week.

Solid Waste Permitting

As part of a statewide initiative, the DNR is updating its website provider. So, although the intent is not to overhaul our website, you may notice some minor changes. As always, please reach out to us if you find a link that doesn't work or other issues with any portions of the website. Meanwhile, check back frequently for normal updates and make sure you bookmark the Iowa DNR Solid Waste page.

Upcoming Webinars

We are providing a webinar on Reducing or Terminating Post-Closure Care at the end of February. The goal of the webinar is to inform stakeholders of this important process, including the guidance available on the Iowa DNR Solid Waste webpage, and the related requirements that will be added to Municipal Solid Waste permit holders in the near future.

We are also planning a webinar for later March on how to avoid common pitfalls in construction quality assurance programs. More information will be sent out to stakeholders in the near future.

Other Updates

Our staff regularly attend the monthly ISOSWO board meetings to provide updates. Here are the highlights from those updates.

- Stakeholders for active landfills recently received an email requesting construction information and schedules to help the DNR keep current with construction pricing as well as planned construction in the next year. For more information on this, you can read the Iowa DNR Solid Waste webpage.
- As we noted in the last newsletter, the public and our staff use the same Electronic Document Retrieval system and although it is relatively straightforward, there are some helpful tips and tricks to use it effectively. Since then, the DNR has developed a DocDNR and OpenText Guidance Document. And once our new website rolls out, we will post it to our webpage.
- The construction industry has developed and is promoting use of low radiation nuclear density gauges that don't require the level of training and licensing that typical nuclear density gauges require. The DNR does not have an opinion one way or another on these new or the traditional gauges. Instead, we rely on the certifying engineer to make a selection of the method/equipment that will provide documentation that the soils are placed in accordance with the rules, permit, and approved plans, and specifications.

Rulemaking and Executive Order 10

We continue to make significant progress on the rulemaking process required under the governor's Executive Order 10. We recommend that you visit the Iowa DNR Solid Waste webpage and bookmark it. Meanwhile, we have a separate newsletter for this process, which you can sign up for.

ISOSWO Spring Conference

We look forward to attending the upcoming Iowa Society of Solid Waste Operators conference in Clear Lake. Mike Sullivan will be providing the DNR Update. See you there.

Solidification of Liquid Wastes

Solidification of liquid waste at Subtitle D landfills refers to the process of turning liquid (wastes that fail the paint filter test) waste into a solid form, allowing it to be safely disposed of in a Subtitle D landfill. This is typically achieved by adding binding agents or absorbents to the liquid waste, creating a solid mass that is less likely to leach contaminants into the environment. In Iowa, this process must be approved by the DNR and included in the landfill's permit. Below are some things to consider:

1. A waste determination must be made on each waste prior to mixing or diluting and before it leaves the site of the waste generator.
2. The solidification agents should be carefully reviewed for potential operational issues. Can the material be placed and compacted sufficiently? Will the mix give up the liquids once placed, compacted, and/or surcharged by other wastes?
3. Liquids and solidifying agents may need to be bench tested or field tested before liquid/wet wastes are approved for acceptance. This could include determining what ratios of materials and liquids can be used to make an appropriate (safe) mix for disposal. This includes characteristics such as pH, ignitability, reactivity and off gassing. Also, other factors that would make it undesirable for disposal, such as high oil or high salt content, odor generation potential, or other similar factors that could affect the biological environment within the landfill should be considered.
4. If storage or stockpiling of the binding agents or absorbents is necessary, consideration for stormwater run-on, management of run-off, dust control, etc. should be considered.

Keep in mind that liquid (aqueous) wastes are extremely variable in their properties, so there is no 'one size fits all'. Further, although you may have two inert non-hazardous waste streams, once mixed together they can create a hazardous condition. You do not want your solidification area to be a big science experiment!

As we see more aqueous waste going to landfills and the waste streams evolve, we need to continue to work together and ensure these solutions have long-term viability and safety not only for the landfill, staff, and customers but for human health and the environment.

Waste Planning and Recycling

Packaging comprises a third of the municipal waste stream and curbing the amount of heavy metals in packaging when landfilling, incinerating, etc. lowers the harmful presence in the environment and protects Iowans. Nineteen (19) states, including Iowa have legislation that support the removal and management of toxics in packaging and protect their citizens. Specifically, Iowa Code 455D.19 regulates heavy metal content in packaging and Iowa Administrative Code chapter 567-213.1 implements the provisions of Iowa Code.

In addition, the DNR is a member of the Toxics in Packaging Clearing House (TPCH), which provides vital support for the identification, testing, and removal of non-compliant packaging from the state. Kathleen Hennings serves on the Executive Committee and provides valuable leadership as one of TPCH's longest serving members.

TPCH maintains the Model Toxics in Packaging Legislation and coordinates implementation of state legislation, based on the Model, on behalf of its member states, with the goal of promoting consistency across states. TPCH is a resource and single point of contact for companies seeking information on toxics in packaging requirements. For a summary of TPCH's work in 2024, go to the "Annual Reports & Recognition" page on their website.

Sustainable Materials Management

DNR recently released the following reports supporting Sustainable Materials Management (SMM) stakeholder recommendations. These reports are posted to the SMM web page.

- Landfill Material Analysis - This overview depicts various results and impacts from materials landfilled in Iowa during 2022 that were identified as potentially recoverable for reuse, recycling, and/or composting. Included is an analysis on recoverability, carbon dioxide equivalent emissions, job creation potential, and revenue potential based on those findings.

- Iowa Recycling Facility Study - The focus of this Study was to identify accumulators and processors of Iowa recyclables, document tons of traditional recyclables managed in Iowa and the flow of these materials throughout the state. Analysis of data shows estimates of recycled tons per person, emissions reductions, commodity revenue, and job retention/creation based on responses received from the 2023 recycling facility survey.
- Deposit Container Recovery Rate - This study calculated the recovery rate of metal, plastic and glass beverage containers, subject to the State's deposit container law, also known as the "bottle bill."

Work is underway in support of the SMM stakeholder recommendations.

Food Waste Minimization and Management Plan

To prepare a statewide organics management Plan. Plan activities include:

- Research: Review food waste management systems summarizing food waste management, processing, regulations and incentive systems in other representative states.
- Compost Facilities: Inventory existing Iowa organics/food waste compost facilities compiling such data as materials accepted, requirements for accepted materials, tip fees, capacity, end markets, etc.
- Waste Water Treatment Plants: Inventory select waste water treatment plants to determine co-digestion interest, capabilities, and needed infrastructure to begin accepting food waste.
- Food Waste Generation: Measure and estimate food waste generation from the residential, commercial, industrial and institutional sectors. Assess associated environmental, economic and social impacts.
- Food Waste Density Map: Statewide map showing food waste generation including a gap analysis to show areas of needed food waste management infrastructure and a cost/benefit analysis for investing in recommended infrastructure designed to close identified gaps.
- On-site Management of Food Waste: Assess development of industrial, commercial and institutional on-site food waste management opportunities, including, but not limited to composting, modular AD units, donations, etc.
- Develop a framework for minimizing food waste and increase food waste management leading to marketable end products, donations and landfill diversion, collection of food waste data and assess impactful food waste prevention techniques available for commercial and institutional kitchens

Recycling Data Reporting

In response to an SMM stakeholder recommendation, research is underway regarding methods used by states to receive recycling processing data from recycling facilities. This information will be used by stakeholders and the DNR to identify strategies to regularly receive important recycling program data from identified facilities and/or programs.

Life Cycle Analysis

Work is just getting underway on conducting a Life Cycle Analysis for four materials (food, plastic film, aluminum and textiles). LCAs will be conducted using national LCA data from material origin to reaching Iowa's borders. Once materials reach Iowa, the LCA will be completed using Iowa specific data under existing material management programs. This approach will provide a more realistic result for Iowa. Three alternative material management scenarios will then be implemented to determine, for example, CO_2 equivalent emission impacts under these differing management strategies

Feedback

We value your input as a stakeholder and want to ensure our communications are helpful to your needs. If you have any questions, comments, or even topics you'd like to see in the newsletter, please contact Mike Sullivan, Supervisor of the Solid Waste and Contaminated Sites Section. To contact our staff, our current roster can be found on our website.

Thanks,
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