

Material Recovery Facility (MRF) Stakeholder Meeting

9:00 **Welcome/Introductions**

9:05 **DNR Recycling Updates**

Jennifer Semrau, DNR Waste Reduction and Diversion Coordinator

Staffing updates:

K. Strom Hiorns as new Bureau Director, Rcy & SW Section Manager position open for applications until 8/19. Kelly Carlson started in spring on Non-Landfill Team. Ruth O'Donnell started as Organics WMS under the SWIFR grant. New Green and Healthy Schools Coordinator. New IT Business Relationship Mgr, new Hydro, new Engineers. Plan to hire two Recycling LTE positions.

[Recycling Excellence Awards](#) nominations open

Opening recycling grant applications in August; currently reviewing 2023 RU and MRF data submitted and hope to finalize and report at [SWIP](#) meeting in September 18 at 1:30, virtual.

[Council on Recycling](#) meeting on Sept. 17 at 10:00 at GFL MRF in Mayville

Rulemaking:

Will go over recycling and non-landfill rule info later. Next for the Landfill rule = public comment period in September.

Industry updates:

[WIRMC](#) call for presentations/abstracts due this month.

[SW 101 online](#) course developed by AROW, WCSWMA, and SWANA open to attend now

9:15 **Recycling Rule Revision: Overview of Changes for MRFs**

Jennifer Semrau, DNR Waste Reduction and Diversion Coordinator

Owner Financial Responsibility for MRFs: How to Calculate

Casey Krausensky, DNR Solid Waste Coordinator

Jennifer Semrau presented slides on the Recycling Rule:

- Schedule overview: next is submittal to Legislature for committee reviews in January 2025 with potential effective date August 2025
- Operational requirements: minimum glass recycling rate, maximum residual rate, outdoor storage and contingency plans
- MRF reporting and education: reduced annual reporting elements, materials from municipalities = residential for reporting, provide contracted haulers and RUs information on acceptable materials, notification requirements, etc.

Q on education requirements for RUs in the rule as well – currently are existing education requirements, and added education requirements for batteries and food waste

Q on how glass recycling rate will be implemented: 12% of total materials by weight coming in to the MRF

Casey Krausensky presented slides on OFR requirements in the draft rule

- OFR for closure of the facility will be required by June 2027 for MRFs that process 5000 or more tons of material each year
- Several ways to establish OFR, and Casey discussed ways to assess the cost of closure at MRFs; annual adjustment for inflation
- Cost of closure includes: equipment and personnel to load materials and for transportation, tipping fees, 10% contingency
- Considerations: cost specific to the facility based on location and transport costs, local tipping fees, and maximum amount of materials on site; based on one-time/3rd party rates
- Based on not consistently positive value materials (unprocessed recyclables, glass, rigid plastics, residuals), polypropylene possible
- DNR will have some prices and calculations to assist with calculations
- Casey walked through steps to determine OFR costs
- Nothing required until March 2027, but can make estimates now to help prepare
- Feedback requested: Any facilities collecting any other non-net positive materials? Tons per semi variations? Loading time in calculation for baled materials?
 - K. Wishon: Tons per semi load would depend on closed or open top (compactor versus loose and open top versus closed, varies from 18-21 tons)
 - No other comments, but Casey open to questions and suggestions anytime

9:45

Solid Waste Rule Feedback

Casey Krausensky, DNR Solid Waste Coordinator

Non-landfill rules/code feedback – initial information gathering for possible rulemaking

- Includes many types of facilities: storage, incinerators, composters, transfer facilities, etc.
- Asking for feedback at additional meetings this fall, Sept. – Nov., that can be found at <https://dnr.wisconsin.gov/topic/Waste/Laws.html>
- General questions for feedback: What are good regulations in other states or other DNR programs to review to see if they work in WI? General thoughts and ideas welcome. What about mobile processors or general permits? *Would it be helpful for your site to manage treated wood, shingles, tires, etc.? What concerns would you have for location?*
- “Recycling adjacent” questions on non-putrescible waste transfer code; when is something no longer a solid waste; do storage and two week transfer have different needs; TDA as road subbase – is it disposal?
- Concerns? PFAS, fires, microplastics, other?
- Where is the waste stream and industry going in the next 10-20 years?
 - Short on time to get feedback today, but posed questions for future feedback and will provide slides to the group

10:00

Batteries in Waste & Recycling Streams: What Can Be Done?

IL EPR Legislation and DOE Grant: *James Jennings, IL EPA Deputy Director*
Potential Legislative Proposal in WI: *Jason Johns, NWRA WI Chapter*
All Battery Collection Program: *Chris Blan, Brown County Resource Recovery Technician*

James Jennings, Interim Director of the IL EPA, presented slides on IL’s recent batteries EPR legislation – Battery Collection Growth in IL

- 3 years ago law in place to prevent intermingling of batteries with residential recycling,

but lack of field inspector capacity to enforce anything. Wanted to provide collection network for that.

- Wide range of battery chemical components
- Historical: IEPA supported HHW collections; local government collection events; and Call2Recycle and private efforts but many places without access to battery collection and there were safety concerns with Li-ion battery fires (city of Morris)
- Expansion objectives: sustainable HHW collection network within half hour of 90% of population; contract to add free battery collection opportunities in each county; avoid new spending
 - Identify viable long-term HHW collection facility partners (fixed site or annual collection), hub-and-spoke to collection events, and add bandwidth statewide
 - Received \$2M grant from DOE under BIL, still under negotiations to finalize in August 2024, will increase outreach and offset collection costs
 - Goals: 1 site per 10,000+ popn.; 1 site per county without 10,000 municipality; 200+ sites statewide; 1,200+ days of collection
 - 4 years to plan and collect
- IL Portable and Medium-Format Battery Stewardship Act (2024) creates an extended producer responsibility program for small and medium format batteries. Has collection goals (60-70%), collection network standards (one permanent collection site within a 15-mile radius for 95% of state's population and at least one collection site or event for every 30,000 resident in a single county; Program year one begins on 1/1/28)
- Q - Many HHW sites in IL = storage facilities and get IEPA permit and often associated with a municipality. Agency provides funds for collection and disposal, but other costs borne by local government. IEPA has contractor that helps with some one-time HHW events.
- Q - DOE grants with 50% cost share, IL cost share = work they already planned to do to cover HHW program, collection and personnel costs
- Q - Do universal waste (UW) and U.S. DOT regulations apply to these collection sites? Were battery containing devices considered? Yes to both. Contractor maintains all licensing. For UW, long-term storage facilities get permit to store UW. Local governments meet criteria to exempt from that permitting. The DOT transport requirements still apply.

Jason Johns, NWRA WI, unable to attend to present on previous bill and potential legislation in WI's next legislative session. David Pellitteri, Chair of NWRA WI, stepped in:

- Bill presented in last session for grants, education, and fire suppression funds did not get introduced in Assembly. NWRA hopes to again develop a battery management bill. Looking at other states' successful bills, looking closely at structure behind IL bill and may draft similar language and incorporate aspects of prior bill in next 30-60 days and will look for feedback and support. Like the IL bill, battery containing devices likely not included in proposed legislation because of general pushback. Would consider that in a separate bill if successful.

Chris Blan, Brown County, discussed all battery collection program:

- Because of fires, County emphasized importance of proper battery disposal, but used to be a charge for disposal. Changed to accept for free, and cover cost of \$6,000-10,000 that is less than cost of fires.
- "Batteries Now Included" – collect small rechargeable batteries, not lead acid; large (>300 watt hours), damaged batteries, vaping materials, battery containing devices, single use including alkaline so no confusion on what they collect or not
- Chris provided collection totals and costs breakdown and publications: increased numbers of alkaline collected (generated at higher frequency) and other kinds of batteries have similar numbers since the program started in 2023, but expect it to grow

- Q – Able to send E-Cycle and non-eligible devices to same recyclers? Sort materials and transport appropriately to one recycler in order to get E-cycle credit where they can.
- Q – are there several E-Cycle non-eligible devices you are receiving? Yes, hoverboards, etc., that are “non-data” devices coming in

11:00

Fire Suppression at MRFs and Solid Waste Processing Operations

Brandon Knudtson, Hilltopper Refuse & Recycling/7 Rivers

Brandon Knudtson is part owner of 7 River Mattress Recycler, which operated for 6 years and was recently shut down because of local fire code violations.

For awareness: Standards difficult to meet and that may be difficult for other types of MRFs to meet as well: “Group A” plastics management (polyester, polystyrene, PET, etc.) can’t be stored within a facility unless a high-powered fire suppression system is installed. What do MRFs need to do to plan for this requirement?

- David Pellitteri: When designing MRF in 2010 with city of Madison, this was a concern as well. Big financial commitment to meet code. Required to store all plastics where ceiling no higher than 20 feet. Had to redesign the building, based on fire department requirements.

11:10

MRF Presentations/Discussion: Reflections on Batteries, Fires, Operations & MRF Improvements

1. Green Circle Recycling, *Zach Harter*: Single stream 20,000 square foot facility in La Crosse. Record amount of material collected in 2023. Installed optical sorter for fiber and OCC recovery in early 2023. Late 2023 installed micro-jet quality control robots/optical sorters. Both working well. Fire suppression requirements when they built the facility, too. Looking to add more. Minor improvements for fiber capture on front end soon. Markets have been good since some PET difficulty beginning of year. Only a couple battery fires. Local fire protection company offers fire extinguisher training and have done it every two years. More team members to assist putting it out now. Invest in more fire extinguishers as well and placed all around facility so don’t need to rely on suppression system as much.
2. Hilltopper Refuse & Recycling, *Brandon Knudtson*: Onalaska main site that processes materials, dual stream, curbside collection; Arcadia source separated recycling center; Added #5 plastic couple years ago and going ok. Cartons and paper cups added couple years ago too. Drop off for polystyrene foam using grant award money in 2023 – collect a lot! Has worked on education with localities and work at events (ex. Onalaska Community Days). Total material down <1% and residual up 5%, glass collection down but added a commercial collection route (bar glass), contamination rate of 3.3%. Rare to have issues with batteries, which may be because of dual stream collection. Steady markets. (Foodservice Packaging Institute/Foam Recycling Coalition grant for foam collection noted)
3. John’s Disposal, *Sarah Jongetjes*: Two MRFs in SE WI, HQ in Whitewater and MRF in Franksville, hauler also. Major fire in Jan. 2023 and was rebuilt by May 2023. Fire in Franksville in 2008. Four truck fires from truck loads in 3 day period last month, but unsure of sources. Took on materials from other MRF shut downs over past couple years and was running 24/7 for a while. Market smooth, glass going well. Keeping materials moving out helps reduce the fire risk.
4. Outagamie (Tri) County MRF, *Alex Pantzlaff*: Robotics added last November, 2 for containers and 1 on residual line (sorts aluminum, PET and naturals). Very programmable because they weren’t intended to sort those materials. Some

fires have occurred likely caused by batteries but some by propane tanks. Glass clean up system has helped to recover 1,100 more tons than in 2023 half way through 2024. Looking at long-term analysis of the facility on size, population growth, commodities, equipment. Overall busy but quiet. Contest to name the new robots!

5. Pellitteri Waste Systems, *David Pellitteri*: Madison single stream MRF. Experience with education on batteries: good effects for MRF and transfer station. Created fire log that tracked all fires that occurred, took pictures, location of building and exact spot, severity (smoke = stage 1, flame = 2, fire dept called = 3, stage 4 = catastrophic). Created communication system with customer base. August 2023 – Jan. 1 2024 = 15 thermal events in trash and recycling center. Did a lot of education. Since the education push, only had 4 thermal events. Press release and many local papers and magazines picked it up; did physical inserts in all mailings; email blasts to all customers; contacted municipal staff; battery campaign on youtube; print ad for newspaper. National Battery Safety Day, had Dane County clerks push out information. Mobile app pop up. Identified customers likely to have battery waste and went directly to them to talk about how to handle (vape shops for example) and did some random audits of specific collections and may not continue to service those customers. A lot of information online – share resources.
6. WM, formerly Waste Management, *Julie Ketchum*: Presented slides on recycling efforts, Germantown MRF retrofit, batteries, issues: 15.2M tons of materials recycled in North America in 2023 and plan for additional investments/capacities at key facilities for cleaner material and lower labor costs and maximizing material values. Germantown retrofit was \$36M, up to 230,000 tons per year throughput, completed January 2024. Open house 4/19 and Gov. Evers visit 4/22. Lithium batteries - 2023 NWRA study by RRS that surveyed MRFs: frequency of fires varies, costs range from \$1500-\$50M. This increases insurance rates and deductibles. Thousands of incidences in collection/fleet vehicles. IL legislation serving as model legislation for other states – WM presented on this to Council of State Governments in July 2024. Looking to “Wisconsinize” the IL bill and clean it up. Contamination and problem materials: propane tanks, chemicals, syringes, diapers, bagged recyclables – need for public education at state and local level. Film recovery system built in, but don’t want bagged recyclables now. May accept plastic bags in the future.

11:50 **Open MRF Discussion**

No other comments or questions (Noon)

DNR shared the [E-Cycle battery recycling video](#) and household survey results for those able to remain on the meeting

12:00 **Wrap-up/Adjourn**

Slides and info will be posted at MRF webpage