



REGION 5

CHICAGO, IL 60604

**ELECTRONIC MAIL
DELIVERY RECEIPT REQUESTED**

Mr. Robert Dautermann, III
Chief Operations Officer
R. Stresau Laboratory, Inc.
N8265 Medley Road
Spooner, Wisconsin 54801-7918
rdautermann@stresau.com

Re: **Notice of Violation and Opportunity to Confer**
Facility Name: R. Stresau Laboratory, Inc.
Facility EPA ID: WID020488011

Dear Mr. Dautermann:

On August 29-30, 2023, the U.S. Environmental Protection Agency (EPA) and Wisconsin Department of Natural Resources (WDNR) conducted a RCRA compliance evaluation inspection of R. Stresau Laboratory, Inc., ("Stresau" or "facility") located in Spooner, Wisconsin. A copy of EPA's inspection report was emailed to Stresau on October 12, 2023. The purpose of the inspection was to evaluate Stresau's compliance with its hazardous waste operating license (Final Determination to Approve a Feasibility and Plan of Operation Report or "License") and certain additional provisions of RCRA and its authorized implementing regulations related to the generation, treatment, and storage of hazardous waste.¹

During the inspection, EPA observed the alleged violations, described below. On September 29, 2023, Stresau provided an inspection follow-up letter ("Stresau Follow-Up") to EPA delivering documents that had been requested during the inspection, as well as providing an update on actions that had been taken after the inspection.

EPA requests that you voluntarily submit a response to this Notice of Violation in writing to the Agency no later than thirty (30) calendar days after receipt of this letter documenting any additional actions which you have taken to address the violations below or demonstrating why the violations were cited in error. We also ask that you voluntarily provide responses to the questions found in the "Additional

¹ We note that effective September 1, 2020, the State of Wisconsin promulgated revised regulations which have not yet been authorized by EPA. EPA authorized the 2006 edition of Wisconsin's hazardous waste regulations which contained a provision at Wisc. Admin. Code s. NR 662.034 (2006) that remains the RCRA authorized Large Quantity Generator provision in Wisconsin.

Information” section below. After thirty (30) calendar days from your receipt of this letter and, if applicable, after review of your response, EPA will notify you of any further action.

Part I - Storage of Hazardous Waste Without Applicable License Conditions and Failure to Comply with License Exemptions, Violating Section 3005 of RCRA, 42 U.S.C. § 6925(a) and State Licensing Requirements

A small quantity generator of hazardous waste who is also a licensed treatment, storage, and or disposal facility (TSDF) must follow not only the conditions of its license, but also any small-quantity generator conditions for a license exemption that are not specifically addressed in its license.

During the inspection, EPA observed Stresau’s failure to comply with small quantity generator conditions for an exemption from a license that are not specifically included as conditions in its License. Upon failure to comply with any such conditions, a generator who is also a licensed TSDF must either come into compliance with the conditions for exemption or apply for a license modification that allows the generator an alternative to compliance with the conditions for exemption. Failure either to comply with the conditions for exemption or to modify the license is a violation of Section 3005 of RCRA, 42 U.S.C. § 6925(a) and of Wisc. Admin. Code ss. NR 670.001(3) and 670.010(1) and (4).

1. Storage over 180 days

A small quantity generator of hazardous waste who is also a licensed facility may accumulate hazardous waste on-site for 180 days or less without having to apply for a license modification. See, Wisc. Admin. Code s. NR 662.192(3).

Prior to the inspection, the last shipment of thermal treatment unit (TTU) ash was manifested off-site by Stresau on November 10, 2021 (Manifest #002039007VES). One container of ash was shipped weighing approximately 155 pounds. The next shipment of TTU ash was manifested off-site after the inspection on October 18, 2023 (Manifest # 002270936VES). Two containers of ash were shipped off-site weighing approximately 317 pounds.

According to Mr. Halquist, an attorney representing Stresau and who was present during the inspection, ash is removed from the TTU every six months. During the inspection, only one container of TTU ash was observed in the main central accumulation area (“CAA 1”) with a start date of accumulation from June 15, 2023. No other containers of ash were observed. In the Stresau Follow-Up letter, Stresau stated, “Based on the on-site review and observations during the EPA’s August inspection, please know that Stresau removed the residual ash in the TTU, added it to *the existing drum of ash*, and took a representative sample/TCLP of the TTU Ash [...]” (emphasis added). One other drum of ash, therefore, must have been in storage prior to the inspection, as two containers were shipped in October 2023. As Mr. Halquist noted, the TTU is emptied every six months. Therefore, the second container of waste would have been accumulating TTU ash, at most, six months after November 10, 2021, which would have been May of 2022. This ash would have been stored on-site for greater than 180 days by the time it was shipped off-site in October of 2023.

2. Container Marking - Start Date of Accumulation

Under Wisc. Admin. Code s. NR 662.192(1)(d), a small quantity generator must clearly mark each container holding hazardous waste with the date upon which each period of accumulation begins.

At the time of the inspection, Stresau was storing hazardous waste in containers in two central accumulation areas (CAAs). For reference, CAA 1, mentioned in item 1, above, was used for, among other things, storage of TTU ash, labpack waste, lab wastes, and the daily wastes that were to be burned in the TTU. A second CAA (hereinafter "CAA 2") was used for storage of hazardous wastes to be processed through wastewater treatment and MuniRem® treatment, as well as for the wastes generated from those processes.

The following containers were missing the required start date of accumulation in CAA 1:

- a. The strainer tub, which was used for the daily wastes that are soaked in fuel oil. This tub contained wastes at the time of the inspection. Facility representatives stated that they do not track the number of days that the waste is left to drain from this container.
- b. The recovered fuel oil drum beneath the strainer tub (hazardous for reactivity and toxic metals).
- c. Several buckets of recovered fuel oil that were to be reused for desensitizing daily wastes in the manufacturing areas.
- d. One 30-gallon drum of "Isopropyl Alcohol" that was also marked as "Hazardous Waste."
- e. One 30-gallon drum of "Acetone" that was also marked as "Hazardous Waste."
- f. One box of HEPA filters that was labeled as "Hazardous Waste."

The following containers were missing the required start date of accumulation in CAA 2:

- g. The strainer tub, which was used for the daily wastes that are soaked in water and will be treated in the MuniRem® process.
- h. One 30-gallon fiberboard drum of "Waste Gloves" that was also marked with the D005 and D008 waste numbers.
- i. One 55-gallon drum of "MuniRem® Solid Waste" that was also marked as "Hazardous Waste" was not marked with a legible start date of accumulation.

Stresau also stores and treats hazardous waste in 5-gallon buckets throughout manufacturing areas. The daily waste has been determined to carry the D003 waste number for reactivity in addition to toxicity characteristics for some heavy metals. Oil or water in the buckets is used to desensitize the waste, which is considered treatment. Buckets of these daily wastes are not marked with start dates of accumulation.

3. Container Marking – "Hazardous Waste"

Under Wisc. Admin. Code s. NR 662.192(1)(d)(2), a small quantity generator must label or clearly mark each container in a CAA holding hazardous waste with the words "Hazardous Waste."

At the time of the inspection, the following containers were not marked with the words “Hazardous Waste:”

- a. In CAA 1, the drum collecting recovered fuel oil from the strainer tub in CAA 1.
- b. In CAA 2, the strainer tub holding hazardous daily wastes that had been soaked in water.
- c. Also, in CAA 2, the MuniRem® treatment unit (It was empty at the time of the inspection).

Note: In the Stresau Follow-Up letter, Stresau indicated that the strainer tub identified in 3.b., above was labeled as “Hazardous Waste” after the inspection. **EPA is not requesting additional information for the strainer in CAA 2.**

Many small quantity generator conditions for a license exemption are also independently violable requirements that apply to TSDFs. When a generator that is also a TSDF fails to comply with a condition in Wisc. Admin. Code s. NR 662.034 that is incorporated from a TSDF requirement in Wisc. Admin. Code chapters NR 664 or 665, the generator violates not only Wisc. Admin. Code ss. NR 670.001(3) and 670.010(1) and (4), but also simultaneously violates the incorporated TSDF requirement that corresponds with the condition for a license exemption.

4. Container Management – Open Container

Under Wisc. Admin. Code ss. NR 662.192(1)(b) and 665.0173(1), a small quantity generator must always keep a container holding hazardous waste closed during storage and, by extension, treatment (see 51 FR 10168) except when it is necessary to add or to remove waste.

At the time of the inspection, the MuniRem® treatment device was not in operation and the unit was empty. The unit, however, does not have a cover and, according to facility personnel, is open during treatment.

5. Container Management - Weekly Inspections

Under Wisc. Admin. Code ss. NR 662.192(1)(b) and 665.0174, a small quantity generator shall inspect where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

At the time of the inspection, weekly inspections were not being conducted in the labpack cabinet in CAA 1, in CAA 2, or at the individual CAAs where daily wastes are collected and stored.

6. Emergency Equipment – Maintenance

Under Wisc. Admin. Code ss. NR 662.192(1)(d) and 665.0033, all facility communications or alarm systems, fire protection equipment, spill control equipment and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

At the time of the inspection, the bottle of solution at the eye wash station in CAA 1 was missing.

Note: In the Stresau Follow-Up letter, Stresau indicated that the eye wash bottle in CAA 1 had been replaced. **EPA is not requesting additional information for the eye wash station in CAA 1.**

7. Emergency Equipment - Access

Under Wisc. Admin. Code ss. NR 662.192(1)(d) and 665.0034(1), whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under Wisc. Admin. Code s. NR 665.0032.

At the time of the inspection, personnel did not have immediate access to an internal alarm or an emergency communication device in either CAA 1 or CAA 2.

Note: In the Stresau Follow-Up letter, Stresau indicated that a bullhorn had been placed in CAA 1 after the inspection. **EPA is not requesting additional information for an emergency communication device for CAA 1.**

Part II – Storage or Treatment of Hazardous Waste in Violation of Wisconsin License Conditions

8. License Requirement #12.b – Wastes Allowed to be Treated in TTU

Stresau is licensed to burn only waste contaminated with reactive hazardous waste, or reactive hazardous waste, in the TTU.

During the inspection, Stresau noted that waste determinations for wastestreams that were contaminated with energetics or with residue from energetics used in the process were supported, in large part, by generator knowledge. In addition to applying the toxicity characteristic for heavy metals in many of the waste streams, Stresau was applying the D003 (reactivity) waste number to all waste streams that contained any amount of energetic material per Wisc. Admin. Code s. NR 661.23(1)(h). A solid waste per this regulation exhibits the reactivity characteristic if a representative sample of the waste is a forbidden explosive as defined in 49 CFR 173.54 or would have been a Class A or Class B explosive as defined in 49 CFR 173.52 and 173.53. This regulation, therefore, is based entirely on Department of Transportation (DOT) definitions.

Stresau does not offer wastes that may contain energetic material for transportation off-site. Currently all energetic wastestreams are treated on-site and are not subject to DOT definitions or requirements. Therefore, utilizing Wisc. Admin. Code s. NR 661.23(1)(h) to characterize wastestreams that are not subject to DOT regulations is not justified. Treatment of non-reactive wastes in the TTU is prohibited.

9. License Requirement #1 – Operating in Accordance with the Approved FPOR

Stresau must operate the licensed TTU in accordance with, among other things, the approved Feasibility and Plan of Operation Report (FPOR).

Procedures and limitations for operation of the TTU are described in Attachment P of the FPOR. According to item 7.5.1 of Attachment P, residue that is generated from thermal treatment in the Licensed TTU is to be transferred to the central accumulation area for hazardous waste at least once every five burns, or whenever a significant amount of ash (>4") has accumulated in the pit. The TTU is not licensed for extended storage.

At the time of the inspection, an accumulation of ash was observed in one of the treatment pits in the TTU. According to Mr. Helquist, as mentioned in item 1, above, the ash is removed every six months. According to an employee of Stresau, Taylor Granroth, the TTU operates two to five times in any month, therefore, Stresau would surpass the requirement to remove the ash after five burns within, at the longest period, three months. Failure to empty the TTU pits and to place the ash in a container in CAA 1 in a timely manner is a failure to operate in accordance with the FPOR.

10. License Requirement #16 – Groundwater Monitoring and Soil Sampling

Stresau is required to conduct annual groundwater monitoring for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and total metals at the TTU, and bi-annual surface soil sampling for metals at the North Testing Site to assess environmental trends. Stresau shall submit an annual report summarizing the sampling results to the WDNR by March 1st of each year.

At the time of the inspection, Stresau had not submitted an annual report in accordance with the License summarizing groundwater or soil sampling results to WDNR since at least 2019.

In the Stresau Follow-Up letter, Stresau stated that groundwater and soil sampling per the License was scheduled to be conducted on October 11, 2023. **In addition to any other reports generated since 2019, if available, EPA is requesting a copy of the 2023 report summarizing the sampling results.**

11. License Requirement #20(k) – Personnel Training

Stresau shall maintain an operating record that includes information pertaining to personnel training and contingency planning as required in Wisc. Admin. Code ss. NR 664.0054 and 664.0016.

At the time of the inspection, hazardous waste training records for Scott Noyes and Robert Dautermann were not available for review. Both individuals have hazardous waste management responsibilities as they are listed as emergency coordinators in the contingency plan.

Part III – Generator Violations

12. Hazardous Waste Determination

Under Wisc. Admin. Code s. NR 662.011, a generator must determine whether its waste is hazardous. In so doing, the generator must identify all properties of the waste so that it can be managed and treated properly.

At the time of the inspection, Stresau had made an incomplete determination for filters that are associated with the on-site mop water treatment system. Stresau determined that the filters, after use, were hazardous wastes containing toxic metals and Stresau also applied the reactivity characteristic to the filters using generator knowledge. Stresau failed to recognize, however, that pyrotechnic energetics are also included in the mop water wastestream and would be captured in the filters, which Stresau claims are capable of deactivating the reactivity of the waste stream through removal of the energetic grains. Stresau then would treat the filters using MuniRem®. According to Mr. Dautermann, MuniRem® is unable to treat pyrotechnic energetics.

Also, at the time of the inspection, a 30-gallon fiberboard drum of “Waste Gloves” was also marked as “Floor Wipes” and “Waste” with the phrase, “May contain Lead-D008 and or Barium-D005.” According to facility representatives, the origin of this waste stream was not known at the time of the inspection. Typically, wastes such as gloves and floor wipes are managed as reactive/toxic daily wastes that are desensitized in either water or fuel oil; however, these materials were dry and the container was not marked with the D003 waste number for reactivity.

Third, a half-gallon bottle of “Neutralizer” was stored on the “Scrap” shelf of the labpack cabinet in CAA 1. The bottle also had a National Fire Protection Association placard indicating “4” in the flammability quadrant, suggesting the material could be ignitable hazardous waste. The container was not otherwise marked.

Fourth, treatment residue generated from the mop water treatment system as well as from the MuniRem® system were combined for storage in one 55-gallon drum. These two residual wastestreams are not tested individually before mixing to determine toxicity and reactivity characteristics.

Fifth, treatment residue generated from the individual TTU burn units are combined for storage in one container. These newly generated waste streams are not tested individually before mixing to determine toxicity and reactivity characteristics.

13. Universal Waste – Batteries and lamps

Under Wisc. Admin. Code s. NR 673.14(1), a small quantity handler of universal waste must label or clearly mark each battery or container of batteries with any one of the following phrases: “Universal Waste-Batteries,” “Waste Batteries” or “Used Batteries.”

Also, under Wisc. Admin. Code s. NR 673.14(5), each lamp or a container or package in which the lamps are contained shall be labeled or marked clearly with the phrase “Universal Waste – Lamps,” “Waste Lamps,” or “Used Lamps.”

At the time of the inspection, Stresau was storing two lead-acid batteries on the floor in the maintenance garage and seven smaller batteries on a workbench in that building. None of these batteries was labeled with the above phrases for batteries. Also, in the maintenance building, Stresau was accumulating used lamps in a cardboard box that was not labeled with the above phrases for lamps.

Note: In the Stresau Follow-Up letter, Stresau stated that Universal Waste, including batteries and spent fluorescent bulbs have been moved to a central area in a different building for disposal and were labeled. Stresau provided pictures of the labeled universal wastes. **EPA is not requesting any further information for this item.**

Part IV – Unlicensed Treatment

14. Thermal Treatment without a License

A sludge evaporator that is associated with a hazardous wastewater treatment unit that does not meet the definition of wastewater treatment unit in Wisc. Admin. Code s. NR 660.10(141) is subject to hazardous waste licensing as a thermal treatment unit. See Wisc. Admin. Code s. NR 664.0001(2). The definition of wastewater treatment unit states, in part, that the unit must be part of a wastewater treatment facility that is subject to regulation under either 33 U.S. Code §§ 1317(b) or 1342, which govern wastewater discharges to Publicly Owned Treatment Works or through a National Pollutant Discharge Elimination System.

At the time of the inspection, Stresau was using a filtration and evaporation treatment process for discarded mop waters generated from cleaning manufacturing areas of the facility. The mop water has been determined to carry the D003 waste number for reactivity as well as other characteristics for toxic metals including but not limited to barium (D005), cadmium (D006), chromium (D007), lead (D008), and/or silver (D011). Stresau is not subject to either 33 U.S. Code §§ 1317(b) or 1342. Therefore, the evaporator requires a License.

Note: The amount of wastewater generated per month may contribute to the generation rate at the facility and affect generator status. Currently, Stresau has notified as a Small Quantity Generator of hazardous waste. This Notice of Violation is based on regulations for Small Quantity Generators.

Part V - Additional Information

15. Under Wisc. Admin. Code s. NR 665.0382, open burning and open detonation is prohibited except for the open burning and detonation of waste explosives. Waste explosives are defined as wastes, which:

- (1) have the potential to detonate and are bulk military propellants, **and**
- (2) which cannot safely be disposed of through other modes of treatment.

Concomitantly, under License Requirement #12.e, Stresau must comply with the requirements of Wisc. Adm. Code Chapter NR 445 and any other applicable air pollution control rules. The WDNR Air Management Program classifies the TTU as open burning and therefore it is subject to the open burning regulations under Wisc. Admin. Code s. NR 429.04(l)(d), which prohibit open burning except burning of explosive or dangerous material for which there is no other safe means of disposal.

Regarding criterion (1), above, **EPA is requesting that Stresau provide documentation that includes a complete analysis demonstrating that the daily wastes treated in the TTU have the capability to detonate.**

Regarding criterion (2), above, **EPA is also requesting that Stresau provide a thorough characterization of currently available on-site and off-site alternative treatment technologies and management methods for waste streams generated by Stresau that are capable of detonation.**

16. Under Wisc. Admin. Code s. NR 668.07(1)(e), land disposal restriction (LDR) regulations require generators who treat hazardous wastes to meet land disposal restriction treatment standards to develop and follow a waste analysis plan (WAP). The WAP must describe the procedures the generator will carry out to comply with the treatment standards and be based on a detailed chemical and physical analysis of a representative sample of the prohibited wastes being treated. The plan must also include testing frequency and be kept on site in the generator's records. Additionally, wastes generated from the treatment process that are shipped off-site must comply with the notification requirements of Wisc. Admin. Code s. NR 668.07(1)(c), along with the notification requirements of Wisc. Admin. Code s. NR 668.07(1)(b) for the constituents that remain in the waste that are to be further treated at the receiving facility (e.g., metals).

At the time of the inspection, Stresau was using a treatment method, MuniRem®, to deactivate the reactive characteristic of certain daily wastes before shipping the residue off-site for additional treatment and disposal in accordance with Wisc. Admin. Code s. NR 668.40. **EPA is requesting a copy of the WAP that is in place for this treatment process as well as copies of the LDR forms associated with this treated waste stream.**

17. At the time of the inspection, EPA noted that liquid was accumulating in the concrete vault next to the TTU. In the Stresau Follow-Up letter, Stresau noted that an environmental consultant gathered samples for testing from the water found in the TTU tank on September 7, 2023. **EPA is requesting a copy of the test results and an explanation of how the liquid was managed thereafter.**
18. In the Stresau Follow-Up letter, Stresau noted that a Site Investigation Report had been compiled with the results from sampling that had taken place in August and November of 2022 per Stresau's Site Investigation Work Plan (SIWP) instituted under WDNR's Remediation and Redevelopment Program. **EPA is requesting a copy of this report and of any additional reports that were generated in accordance with SIWP in 2023.**

Actions Requested

According to Section 3008(a) of RCRA, EPA may issue an order assessing a civil penalty for any past or current violation of the statute, requiring compliance immediately, or within a specified time period, or both. Although this letter is not such an order, or a request for information under Section 3007 of RCRA, 42 U.S.C. § 6927, EPA requests that you submit a voluntary response in writing to the Agency no later than thirty (30) days after receipt of this letter, documenting the actions, if any, you have taken since the inspection to address the identified alleged violations, as well as providing any additional information requested. You do not need to provide documentation regarding alleged violations that you addressed during the inspection, or post-inspection, as noted above.

Please send all information, documents, and reports requested by this letter by electronic mail to Brenda Whitney at whitney.brenda@epa.gov and r5lecab@epa.gov. The subject line of all email correspondence must include Stresau's EPA Identification Number: WID020488011.

All electronically submitted materials must be in final and searchable format, such as Portable Document Format (PDF) with Optical Character Recognition (OCR) applied. If you are unable to send a response to these email addresses due to email size restrictions or other problems, contact Ms. Whitney to make additional arrangements for transmission of the response.

This letter is not subject to the Paperwork Reduction Act, 44 U.S.C. § 3501 *et seq.*, because it seeks information from specific individuals or entities as part of an administrative investigation. You may assert a claim of business confidentiality under 40 C.F.R. Part 2, Subpart B for any part of the information you submit to EPA in response to this letter. Information subject to a business confidentiality claim is available to the public only to the extent, and by means of the procedures, set forth at 40 C.F.R. Part 2, Subpart B. If you do not assert a business confidentiality claim when you submit the information, EPA may make this information available to the public without further notice.

As mentioned above, the EPA contact in this matter is Brenda Whitney. You may contact Ms. Whitney at (312) 353-4796 or at whitney.brenda@epa.gov if you have questions about this letter. If you have questions of a legal nature, please contact Mr. John P. Steketee at (312) 886-0558 or at steketee.john@epa.gov. Thank you for your prompt attention to these concerns and for your efforts to protect human health and the environment.

Sincerely,

Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division

cc: Andrea Keller, WDNR (andrea.keller@wisconsin.gov)
Michael Ellenbecker, WDNR (michael.ellenbecker@wisconsin.gov)