



Department of
Environmental
Conservation

Treatability Study Samples

Not the same as analytical samples!

NEWMOA - RCRA Inspections & Enforcement at Commercial Labs
June 23, 2020

History

- Analytical samples sent to a lab to characterize a waste stream have been exempt from the full RCRA Subtitle C regulations since shortly after the hazardous waste program was implemented
- Did not apply to large samples needed for treatability studies
- In 1988, in response to petitions from industry, the EPA decided to also exempt treatability study samples



Treatability Study (TS)

Treatability study means a study in which a hazardous waste is subject to a treatment process to determine:

- (i) whether the waste is amenable to the treatment process;
- (ii) what pretreatment (if any) is required;
- (iii) the optimal process conditions needed to achieve the desired treatment;
- (iv) the efficiency of a treatment process for a specific waste or wastes; or
- (v) the characteristics and volumes of residuals from a particular treatment process.

Also included in this definition for the purpose of section 371.1(e)(4)(iv) and (v) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effect studies. A treatability study is not a means to commercially treat or dispose of hazardous waste.

*Definition at 6NYCRR 370.2 (192), mirrors definition at EPA 40 CFR 260.10
Exemption at 6NYCRR 371.1(e)(4)(iv), (v) mirrors EPA 40 CFR 261.4(e), (f)



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TS Sample Collector:

- Maximum of 10,000 kg of media contaminated with non-acute hazardous waste can be collected for each treatability process being evaluated for each generated waste stream.
- Mass of each shipment can not exceed 10,000 kg media (non-acute) and sample must be packaged so it will not leak, spill or vaporize.
- If sample is a hazardous material, transportation must comply with USDOT regulations, including marking, labeling and placarding.



TS Testing Facility/Lab:

- Samples and testing facilities/labs are not subject to hazardous waste regulations if the facility notifies the NYSDEC/EPA no less than 45 days prior to starting treatability studies and the facility has an EPA ID number.
- Lab can STORE maximum of 10,000 kg of media contaminated with hazardous waste. Up to 2,500 kg of this maximum can be acutely hazardous.



STORAGE TIME LIMITS:

- No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (or two years for bioremediation) have elapsed since the collector has shipped the sample to the lab, whichever occurs first.
- Up to 500 kg of TREATMENT RESIDUALS from a particular waste stream from treatability studies may be archived for future evaluation up to five years from date of initial receipt.



PAPERWORK:

- treatability study contract and all shipping papers must be maintained for three years after completion of the study.
- a report must be prepared and submitted to the NYSDEC/EPA by March 15th of each year listing the amount of waste expected to be used in studies during the current year and details for the previous year including:
 - ✓ list of all treatability studies conducted, generator names/locations, quantities of samples received
 - ✓ dates of studies and quantities of samples used
 - ✓ final disposition of residuals and unused samples from each study



TS Samples Case Study:

In the Spring of 2017 I was informed by personnel in Central Office responsible for reviewing the treatability study annual reports that a facility in Niagara Falls submitted a report which listed treatability studies going back to 2012 with samples still on site. It was unclear from the report whether these were untreated samples or archived treatment residuals which are allowed to be stored for up to five years.



Case Violations:

RCRA inspection revealed that the facility had been storing approximately 1,000 lbs of untested treatability study samples (characteristically hazardous) over the one-year time limit with the some at five years old. The samples represented approximately 60 different studies.

Consent Order signed, samples were properly disposed, and a fine was paid.



Thank You!

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