

How to “Pass” an EPA Inspection



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The Normal Audit

Audit for existing permit conditions

RCRA TSD permit and/or generator requirements

CWA NPDES permit

CAA Title V permit

The Normal Audit

Reviewing required records

RCRA manifests, biennial reports,
inspection records

CWA outfall DMR's

CAA Title V deviation reports, monitoring
data (i.e., temperature, flow rates)

Problems with the Normal Audit

Looks only at permit requirements, not whether the right things were permitted

Focus is “end of pipe”, not up in the process

Looks only at required information and data, not all the information

Separated by media, not a holistic view

Problems with the Normal Audit

Focus is on permit requirements

No checks on whether right things were included in permit and applicability determinations were done correctly

Environmental personnel lose institutional knowledge

Problems with the Normal Audit



Problems with the Normal Audit



Problems with the Normal Audit

What if when those applicability determinations were made ... they were wrong

Plants change and regulations change



Process Based Multimedia Inspections

NEIC brings out separate inspectors for each media, usually including RCRA, Air, Water, and EPCRA.

MM teams are usually 4 to 10 members
Inspections typically run for a period of 2 weeks and may involve several visits.

These inspections can be resource intensive for both EPA and the company.

Benefits of Process Based Multi-Media Inspections

Find out where waste streams are generated within each process

We learn how wastes are handled between all different media

Find the real issues

How do we do this?



We spend 1-2 days going over all the processes that are done at the facility. Understanding them from “Cradle to Grave”.

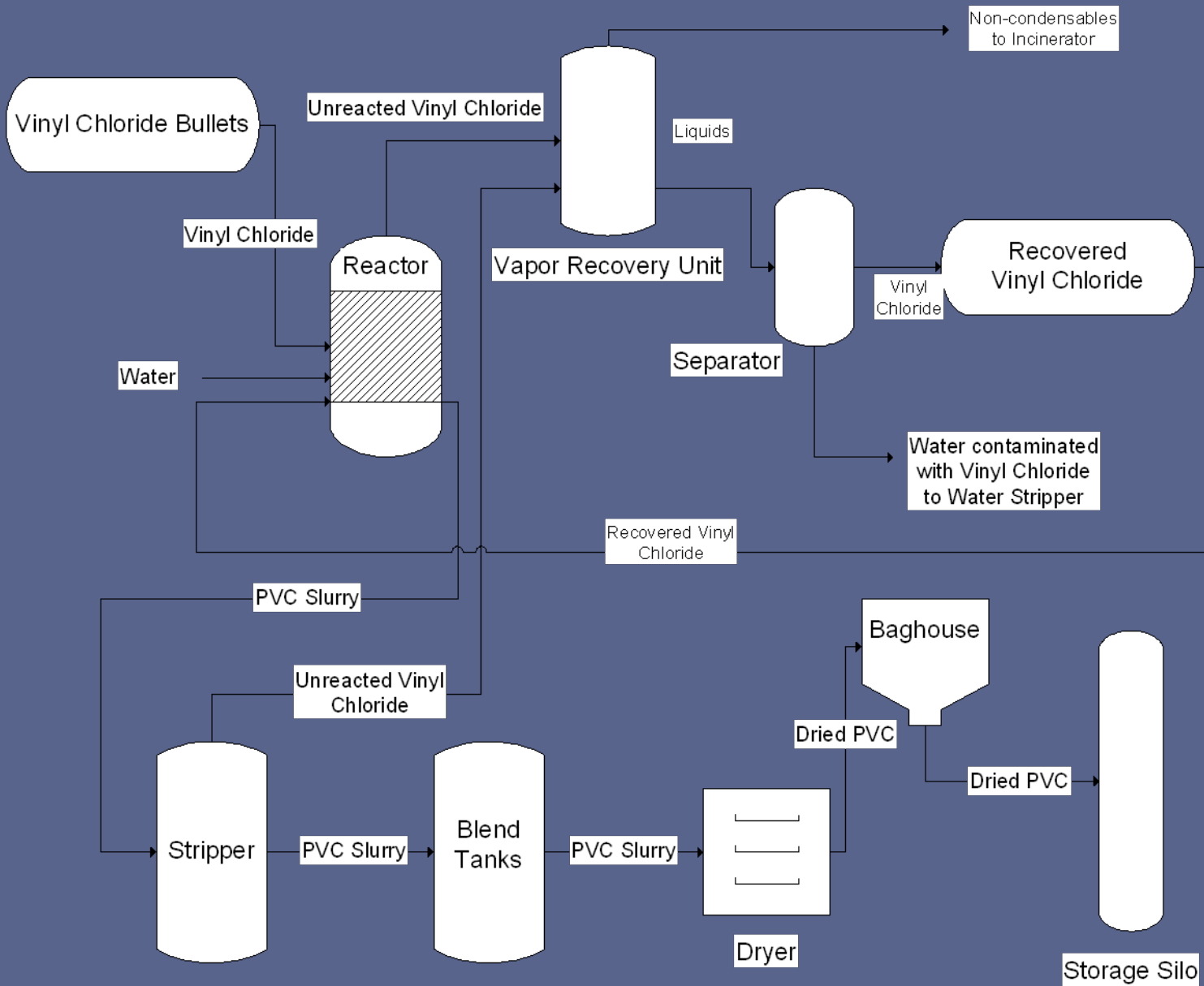
Focus is on how the whole plant works, not just how the already regulated wastestreams are being handled.

What do we learn?

For each processing unit, we learn where air emissions, water streams, solid wastes, & hazardous wastes are created.

We learn how equipment cleanings are done, and other maintenance.

We learn what is done with off-spec product.



Case Study: PVC Facility

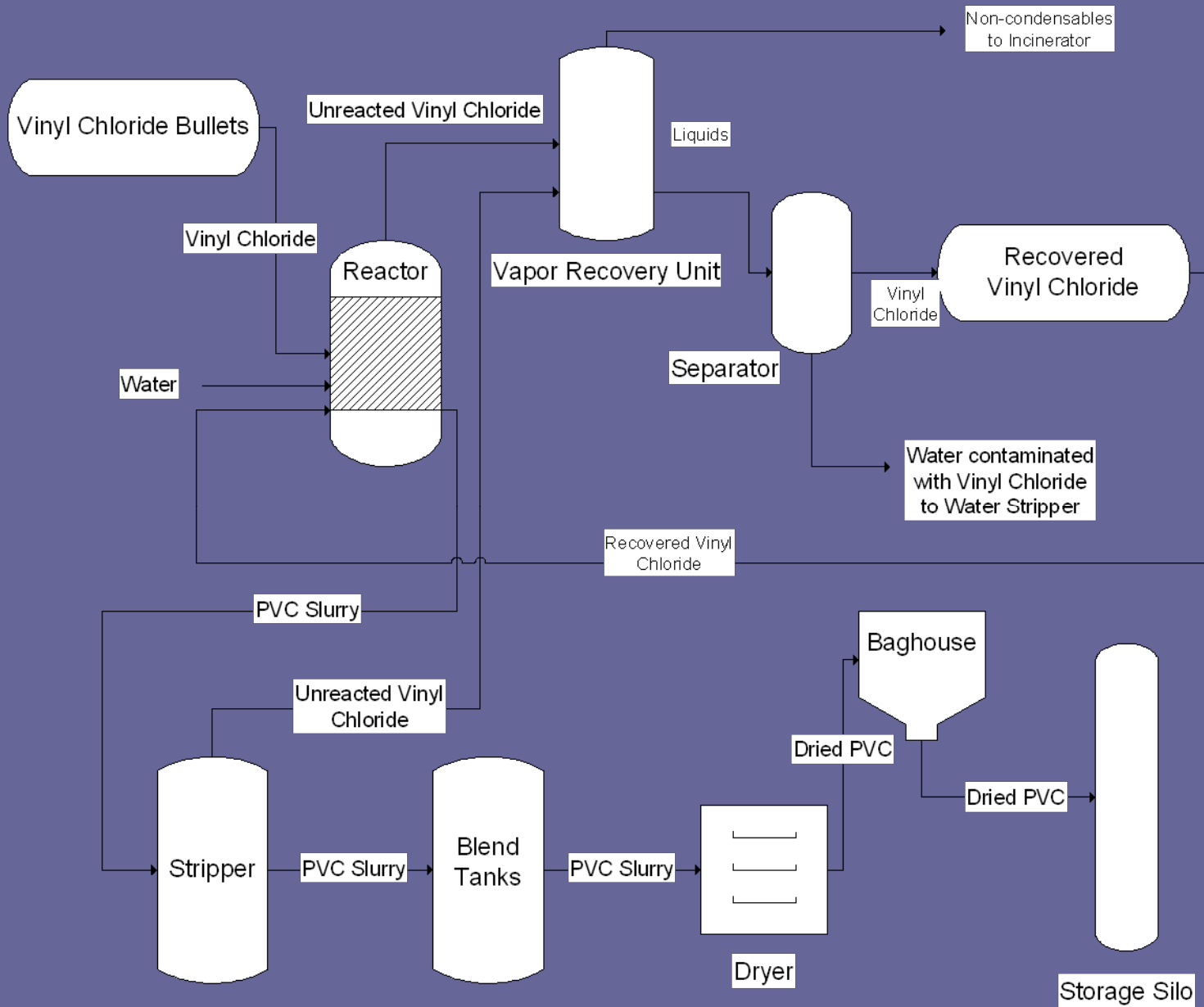
Why is it important to understand the manufacturing process?



Speculative Accumulation

Facility claimed that they were waiting for a buyer who could use the resins that they were collecting in the sacks, and that they had been able to sell some of the resins.

It was important to determine where the resins were generated, and which resins they were able to sell.



Where did it come from?



Reactor Cleanouts

The PVC resin has not been stripped and contained 500 ppm of VC by TCLP.



Oversize Products



After the product has been stripped to recover VC, oversized resins was collected. VC content by TCLP was 5 ppm

Filter Cake Sludge

PVC
collected
within the
wastewater
treatment
system.
VC content
by TCLP
was 0.1
ppm.



Dryer - Overs



Oversized particles removed from dried material. VC content was non-detect.

Records Review during Process-Based Inspection

During review of process, ask about any samples or measurements collected

Look at data collected in other medias

Spill and incident reports

Break time !!!



What Have We Found?

The Most Common RCRA Violation

A Big Problem

A National Initiative

The Most Common RCRA Violation

And the winner is ...

Waste determinations



Waste Determinations

Sampling should be conducted differently depending on situation

- Point of generation

- Land disposal restrictions

Improper waste determinations can lead to big problems

The Problem

Surface impoundments are still used at many facilities to treat and store hazardous wastewaters

Improper waste determinations or not enough sampling leads to disposal of hazardous waste into surface impoundments

RCRA Ground Rules

Surface impoundments are not exempt under the WWTU exemption

Only tanks!!!

SIs are land units subject to LDR. If the wastestream entering the impoundment is a hazardous waste at any point in time, the SI may become subject to RCRA.

No averaging allowed !!!

Main Surface Impoundment Issues

Tank or surface
impoundment?

Episodic discharges
to surface
impoundments



Tank or Surface Impoundment?



Parking Lot Test

The unit should be evaluated as if it were free standing, and filled to its design capacity with the material it is intended to hold. If the walls or shell of the unit alone provide sufficient structural support to maintain the structural integrity of the unit under these conditions, the unit can be considered a tank. Accordingly, if the unit is not capable of retaining its structural integrity without supporting earthen materials, it must be considered a surface impoundment.

- April 8, 1983 memo

Determining if the SI is RCRA-Regulated

If the wastestream entering the impoundment is a hazardous waste at any point in time, the SI may become subject to RCRA. (Most SI units have become regulated because of intermittent discharges into the SI, it was not the normal flow into the unit that made it subject to RCRA)

If a hazardous waste sludge is formed in the SI, it becomes a RCRA unit.

Examples of Intermittant RCRA Wastewaters

Process unit clean-outs that are discharged to the wastewater treatment system

Untreated wastestream as a result of treatment device problems

Untreated wastestream as a result of bypassing treatment system due to large flows

Mineral Processing Initiative

Bevill exclusion allows high volume, low hazard mineral processing wastes to be exempted from regulation.

Mining and mineral processing plants continue to cause serious environmental damages.



Summitville Mine,
Colorado

Mineral Processing

Just because there are Bevill exempt streams at a plant doesn't make the whole plant exempt from RCRA

Subtitle C

Step by step evaluation of the process including sampling is crucial to making a complete Bevill determination

Audit Policy

April 11, 2000 Federal Register
[65FR19618] or at www.epa.gov