RCRA AA, BB & CC AIR REGULATIONS

W-B2

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Keep in Mind

IT'S NOT AS EASY AS A_A, B_B, C_C

RCRA AA, BB & CC Air Regulations

- Background
- Quick Overviews AA, BB, CC
- Subpart AA / Article 27
- Subpart BB / Article 28
- Subpart CC / Article 28.5
- Summary Guidance

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Disclaimer

- You must refer to the regulations in CA Title 22, Div. 4.5, EPA Regs under 40 CFR or EPA Guidance
- Abbreviated content in some references
  - Much detail, various compliance options, etc.
- We will focus on more common industrial situations for Large Qty. Hazardous Waste Generators

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Background – What Is AA, BB, CC

- Related (but separate) standards to control emissions from hazardous waste TSDFs and LQGs
- RCRA Organic Air Emission Standards (ROAES)
  - AA and BB became effective 12/21/1990
  - CC became effective 12/6/1996
- Intended to reduce ozone and toxic air emissions to protect human health and the environment

Background – What Is AA, BB, CC

- EPA estimated organic air emissions from TSDFs exceeded 2 million tons/year
- Subpart CC standards alone designed to reduce emissions to 150,000 tons/year
- This will include many hazardous air pollutants

Background – What Is AA, BB, CC

- DTSC adopted standards with no material changes from EPA
- Only applicable to RCRA Hazardous Waste
- Applies to TSDFs as well as Large Quantity Generators via 22 CCR 66262.17(a)(2)
- Little or no guidance from DTSC, but EPA has numerous documents

Background – What Is AA, BB, CC

- Subpart AA (Article 27) applies to vents from certain equipment treating RCRA Hazardous Waste
- Subpart BB (Article 28) addresses leak detection and repair from pumps, valves, flanges, etc., handling RCRA Hazardous Waste
- Subpart CC (Article 28.5) applies to emissions from tanks, containers, and surface impoundments handling RCRA Hazardous Waste

Notes on AA, BB, CC

- In many jurisdictions, air district permitting may also apply to the HW units/operations, and there may also be applicable air district compliance obligations
- May need to find the compliance obligations that satisfy both (generally, major air district requirements are more stringent)

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Quick Overview – RCRA Subpart AA

- Title 22, Ch. 14 (TSDF) and Ch. 15 (IS/LQG), Article 27
- Applies to process vents from units treating RCRA HW with 10 ppmw organic concentration processed in units that have process vents
  - Distillation Units
  - Fractionation Units
  - Thin-Film Evaporation Units
  - Solvent Extraction Units
  - Air Strippers
  - Steam Strippers

Must be one of the above

Quick Overview – RCRA Subpart AA

- These are "treatment units"
  - Found mostly at TSDFs
  - Some Tiered Permitting (e.g., 3a Aq. Waste w/Organics)
- What about solvent recycling operation at a painter/printer?
- Because AA applies to very limited generator situations, they will receive less attention here

Quick Overview – RCRA Subpart BB

- Title 22, Ch. 14 (TSDF) and Ch. 15 (IS/LQG), Article 28
- Addresses air emission standards for equipment leaks from pumps, compressors, relief valves, valves, etc.
  - Contains or contacts RCRA HW
  - 10% or more by weight organics (not just VOCs)
- Exemptions
  - Equipment in vacuum service
  - Less than 300 hours per year

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Quick Overview – RCRA Subpart BB

- Requires Leak Detection and Repair Program (Separate from Air District Rules)
- Type of Monitoring Varies by Equipment
- Recordkeeping Important

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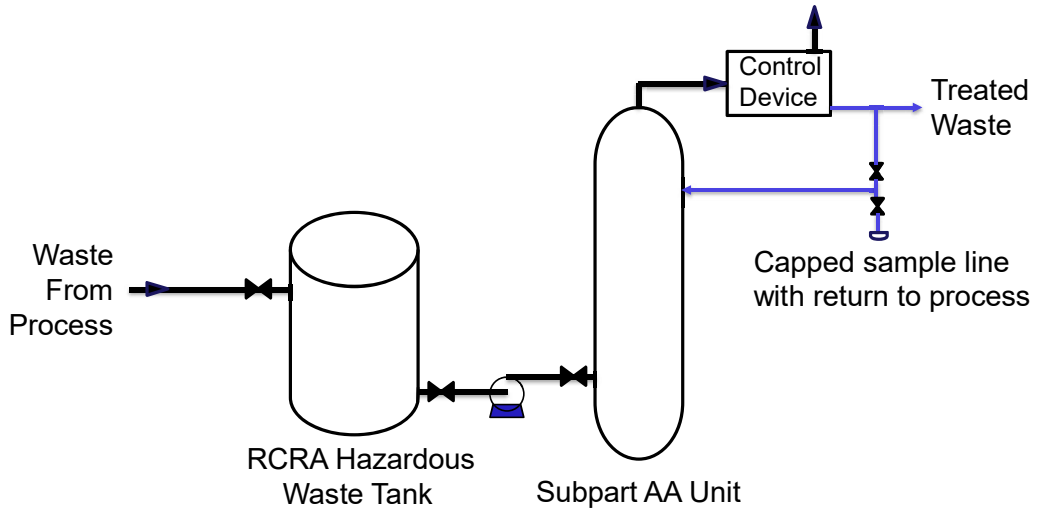
Quick Overview – RCRA Subpart CC

- Title 22, Ch. 14 (TSDF) and Ch. 15 (IS/LQG), Article 28.5
- Addresses air emission standards for containers, tanks, and surface impoundments
- Applies to RCRA HW at Pt. of Generation that exceeds 500 ppm VOC
- Vapor Pressure of material also important

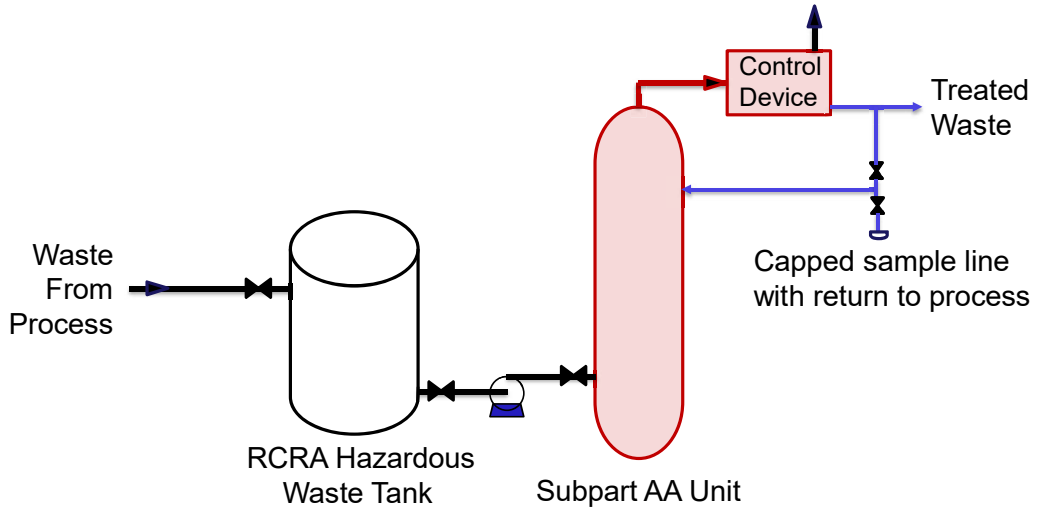
Quick Overview – AA/BB/CC (27/28/28.5)

- Only apply to RCRA Haz Waste, and
  - Subpart AA (Article 27) – ≥10 ppmw organic managed in certain equipment items
  - Subpart BB (Article 28) – ≥10 % organic content in pipe, pumps, etc.
  - Subpart CC (Article 28.5) – ≥ 500 ppm volatile organic stored or treated in tanks and containers

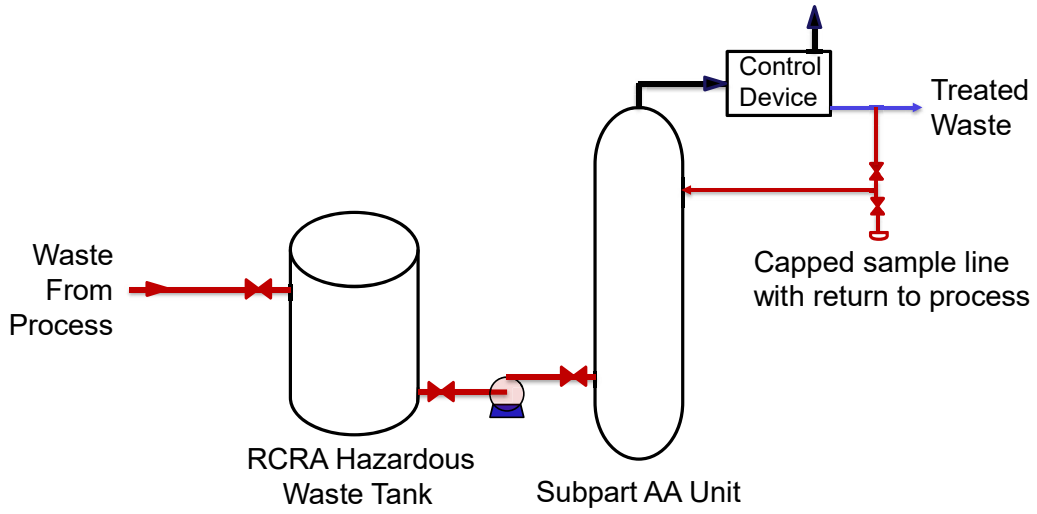
Example Process



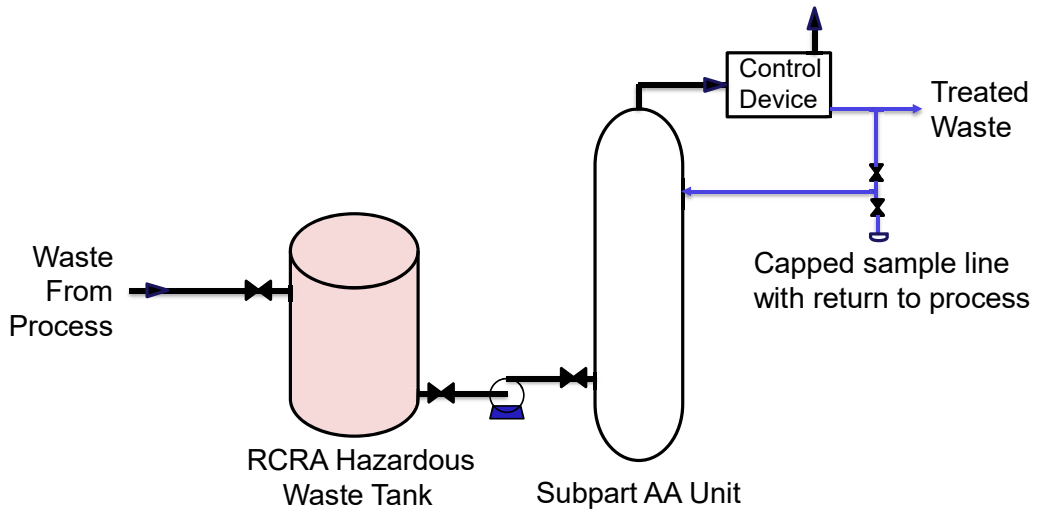
Example Process – Subpart AA Regulated



Example Process – Subpart BB Regulated



Example Process – Subpart CC Regulated



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Subpart AA (27) – What You Need to Know

- Referred to by other sections
  - 40 CFR 264.1031 definitions are at 22 CCR 66260.10
  - Control devices (e.g., absorber, condenser, or carbon) must be designed/operated to achieve 95% or greater total organic reduction, unless…
  - Total organic emissions from all affected process vents at the facility are below 1.4 kg/h (3 1b/hr) and 2.8 Mg/yr (3.1 tons/yr)

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Subpart AA (27) – What You Need to Know

- Referred to by other sections
  - Requires flow measurement once per hour for each vent to the control device
  - Installation, maintenance, and calibration per manufacturer's standards
  - Confirm proper operation of system at least once/day
  - Carbon absorption system requires on site regenerable carbon or replacement of disposal carbon at breakthrough or by design analysis of many details

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Subpart AA (27) – What You Need to Know

- Does this meet all requirements?
- Clearly a disposable carbon system
- Outlet of first vessel (lower right) has valved sample port, likely for Air District requirements
- No instrumentation

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Subpart BB – Air Emission Standards for Equipment Leaks – Applicability

- 22 CCR 66265.1050 et seq
- Applies to equipment that contains or contacts RCRA HW with organic concentrations of at least 10 wt. %
- For at least 300 hours per year
- Non-vacuum service
- Assess applicability
  - Is waste RCRA Haz Waste (D001, D035, D040, F003, etc.)?
  - Does waste contain 10% or more organics?

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Subpart BB – Air Emission Standards for Equipment Leaks – Applicability

- Applicability - Does waste contain 10% or more organics?
  - If known to be mostly organics, just assume so
  - For mixtures with water may need to make determination
    - Direct measurement of organic content less common test
    - If contains water, suggest Karl-Fischer Titration (EPA SW-846 Method 9000) to get water content, organic content is difference so anything with more than 90% water is not subject to standard
    - Total Organic Carbon test (EPA 9060) also possible for screening

Subpart BB – Air Emission Standards for Equipment Leaks – Special Definitions

- "Leak" - indicated by an instrument reading greater than or equal to 10,000 ppm organics above background
- "No detectable emissions" is defined by an instrument reading of <500 ppm organics above background level
- "In light liquid service" - any piece of equipment that contacts a waste stream where 20 wt. % or greater of the waste stream is a combination of components that have a vapor pressure greater than 0.3 kilopascals (2.25 mm Hg) at 20º C (68º F)
- "Heavy liquid service" - is any piece of equipment which is not in gas/vapor service or light liquid service

Subpart BB – Air Emission Standards for Equipment Leaks – Requirements

- First inventory all such components using P&IDs as-built and/or field survey
- All components must be tagged/identified (e.g., stamped stainless steel tag)
- Tracking in spreadsheet is helpful
  - Identification is up to you but include location identifier (Tank #, building/room number or process area, component type [valve, pump, flange, PRV, etc.])

Subpart BB – Air Emission Standards for Equipment Leaks – Requirements

- Tracking can group all similar components on one sheet or one type of component per sheet
- Set up columns in Excel to allow filtering

Equipment ID	Location	Unit/ Area	Type	Compliance	Notes
TA-V1	Ground level, Main Valve	TFA	V	Monthly	P&ID TA-G-001
TA-F1	Ground level, Bottom of Tank	TFA	F	Visual	P&ID TA-G-001
TA-F2	Ground level, Above SP1	TFA	F	Visual	P&ID TA-G-001
TA-V2	Ground level, Feed inlet to tank	TFA	V	No Detectable Emission	P&ID TA-G-002

Subpart BB – Specific Requirements – Pumps in Light Liquid Service

- 22 CCR 66265.1052
  - Light Liquid = 20% or more high Vapor Press. organics
  - Monitored monthly to detect leaks – requires use of VOC Detector
  - Inspected visually each week for liquid dripping (stains, pooling, odors, etc.)
  - Pumps with dual mechanical seal with barrier fluid are exempt from monthly leak detection and weekly visuals

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Subpart BB – Specific Requirements – Pumps in Light Liquid Service

- Pumps in Light Liquid Service
  - If designated for no detectable emissions (<500 ppm), can skip monthly testing and weekly visual if:
    - No externally actuated shaft penetrating pump housing (magnetic drive or air diaphragm)
    - Must be checked upon installation and annually

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Subpart BB – Specific Requirements – Valves in Gas/Vapor or Light Liquid Service

- 22 CCR 66265.1057
  - Monitored monthly with instrument (e.g., FID or PID)
  - After two consecutive months can switch to monitoring the 1st month of each quarter
  - Valves designated for no detectable emissions (<500 ppm) can skip monthly testing and weekly visual, if
    - No external actuating mechanism in contact with waste
    - Must be checked upon installation and annually

Subpart BB – Specific Requirements – Valves in Gas/Vapor or Light Liquid Service

- Exemption for valves “unsafe to monitor” per §66265.1057(g) or "difficult to monitor" per §66265.1057(h)
  - Must be designated as such in the record
  - Refer to the definitions
  - Must be monitored at least annually
  - Records must provide an explanation for each valve, stating why the valve is unsafe to monitor/difficult to monitor and the plan for monitoring each valve

Subpart BB – Specific Requirements – Compressors

- 22 CCR 66265.1053 – Less likely at LQG sites
  - Must have seal system with barrier fluid that prevents VOC emissions unless it has closed vent system to a control device or it is designated for "no detectable emissions"
  - Barrier fluid systems must have sensor to detect leaks; sensor checked daily or audible alarm checked monthly

Refer to §66265.1057 for Details If Compressor Is in Hazardous Waste Service

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Subpart BB – Specific Requirements – Pressure Relief Devices in Gas/Vapor Service

- 22 CCR 66265.1054
  - Operated with "no detectable emissions" except during pressure releases
  - Returned to no detectable emissions as soon as possible, but no later than 24 hours after activation, and monitored to confirm <500 ppm
  - Pressure relief devices are exempt from above if vent to control system per §66265.1033 or are in liquid service

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Subpart BB – Specific Requirements – Sampling Connecting Systems

- 22 CCR 66265.1055
  - Assembly of equipment within a process or waste mgmt. unit used to collect representative process or waste fluid samples during routine operation (excludes grab samples)
  - Requires closed-purge, closed-loop, or closed-vent system to return sample purge to the process or treatment unit
  - Gases vented from sampling container do not require capture
  - Systems without purges are exempt

Subpart BB – Specific Requirements – Open-Ended Valves or Lines

- 22 CCR 66265.1056
  - Each open-ended valve or line shall be equipped with a blind flange, plug, or second valve
  - Must seal the open end at all times, except when flow is required
  - If two valves, close valve on hazardous waste stream side first
  - Can have double block and bleed, but bleed valve or line shall be equipped with a cap, blind flange, plug, or second valve at all other times except when not in use

Subpart BB – Specific Requirements – Heavy Liquid Service, Flanges & Other Connections

- 22 CCR 66265.1058
- Addresses standards for pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and flanges and other connectors
  - Shall be monitored within 5-days if potential leak is found by visual, audible, olfactory, or any other means
  - If leak found must be handled like other leaks

Subpart BB – Monitoring

- Quantitative monitoring on Subpart BB equipment is by 40 CFR Part 60 Appendix A, Method 21
  - Flame ionization detector (FID) – most common
  - Photoionization detector (PID)
  - Catalytic oxidation, and
  - Infrared absorption

Subpart BB – Monitoring

- Instruments can be delicate
- Requires zero check and calibration
  - Zero Gas – contains <10 ppmv VOC
  - Calibration Gas – gas with target concentration (about 10,000 ppmv or 500 ppmv if designated as no detectable emissions
- Need to record while measuring

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Subpart BB – General Monitoring Procedure

- Zero/Calibrate at start of day (or if needed sooner)
- Measure/record concentration of background (upwind)
- Place the probe inlet at the surface of the component interface (valve stem, pump seal, flange, PRV, etc.)
- Move probe along periphery observing reading
- If FID spikes, hold over location and record highest reading
- Leak is 10,000 ppm above background or 500 ppm if equipment is designated for “No Detectable Emissions”

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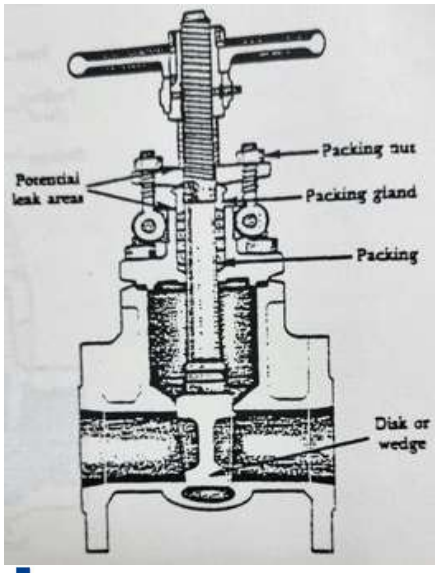
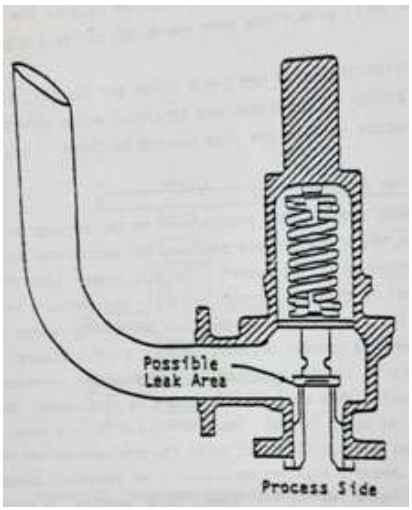
Subpart BB – Typical Monitoring



Gate Valve


Open ended line (not allowed)



Pressure Relief Valve

Subpart BB – Monitoring and Leak Response Schedule

- Valves (Gas/Vapor or Light Liquid Service)
  - Monthly monitoring
  - Quarterly if no leaks found (equipment specific)
  - If leak detected, must repair and monitor for two consecutive months
- Repair – must make initial attempt at repair in 24 Hours and Complete Within 15-days

Subpart BB – Delays in Leak Repair

- Allowed if repair is technically infeasible without a hazardous waste unit shutdown
- Allowed if the equipment is isolated from contact with hazardous waste with 10% or more organics
  - Must be corrected before line returns to "BB service"
- Valve repairs may be delayed if the emissions resulting from immediate repair of the valve would be greater than the emissions resulting from the delay

Subpart BB – Delays in Leak Repair

- See §66265.1059 for delays until next shutdown if valve assembly supplies have been deleted during repairs made during current shutdown unless sooner than 6 months from first shutdown
- Pump repairs may be delayed if the repair requires the use of a dual mechanical seal system that includes a barrier fluid system and if the repair is completed as soon as practicable, but within six months after the leak is detected

Subpart BB – Monitoring and Leak Response Schedule

- Optional Compliance Schedule – Valves Allowed to Leak
  - Must notify Department in writing
  - Applies to all valves in unit
  - If 2% or fewer leaks identified for 2 consecutive quarters, can monitor every 6 months
  - All valves within unit must be monitored within 1 week
  - If leak detected, follow repair procedures

Subpart BB – Monitoring and Leak Response Alternative Schedule

- Skip Period – Valves in Gas/Vapor and Light Liquid Service
  - Must notify Department in writing
  - Applies to all valves in hazardous waste mgmt. unit
  - Option 1 – After 2 consecutive quarterly leak detection periods with 2% or less leaking valves, can skip a quarter and monitor every 6 months
  - Option 2 – After 5 consecutive quarters with 2% or less leaking valves, can skip 3 quarters and monitor annually
  - If 2% leakers are exceeded, must return to monthly monitoring until criteria for alternative schedule can be met again

Subpart BB – Leak Repair

- Flag component with a visible, weatherproof identifier
- Identify date of potential leak (e.g., visual) or detected leak found (via monitoring)
- Initiate first repairs ASAP but no later than 24 hours
- Complete repairs within 15 calendar days
- Do not remove tags until no leaks recorded for 2 consecutive months

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Subpart BB – Recordkeeping Requirements in Facility Operating Record (§66265.1064)

- Equipment identification, location, type, % by weight total organics in hazardous waste stream at equipment item, physical state, method of compliance

Equipment ID	Location	Unit/Area	Type	Compliance	Total Organic Content (wt. %)	Notes
TA-V1	Ground level, Main Valve	TFA	V	Qrtrly.	>20	P&ID TA-G-001
TA-F1	Ground level, Bottom of Tank	TFA	F	Visual	>10, <20	P&ID TA-G-001
TA-F2	Ground level, Above SP1	TFA	F	Visual	>10, <20	P&ID TA-G-001
TA-V2	Ground level, Feed inlet to tank	TFA	V	No Detectable Emission	>20	P&ID TA-G-002

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Subpart BB – Recordkeeping Requirements in Facility Operating Record

- Multiple tables or forms may be useful
  - Leak detection records – monthly, quarterly, annual
  - No Detectable Emission equipment – date of initial test and latest annual
- Don't forget to identify exempt equipment
  - Less than 10% organic content
  - Contacts hazardous waste less than 300 hours per year
- Database or good spreadsheet skills are helpful

Subpart BB – Recordkeeping Requirements in Facility Operating Record

- Gets complicated for skip monitoring compliance
- Documentation of 2% leaker compliance options
- Other information for specific compliance situations
- Specific information if vented to control

Subpart BB – Recordkeeping Requirements in Facility Operating Record

- Leak Repair Form can be helpful
  - When leak was discovered, how, by whom
  - Date/time of initial repair attempt and method (e.g., tightening valve bonnet)
  - Test result after initial attempt (pass or fail)
  - Date of completion of repair
  - For PRVs, when release occurred and when checked
- Determine how form gets processed in your organization

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Subpart BB – Recordkeeping Requirements in Facility Operating Record

- Log must provide information for use in determining exemptions
  - Analysis of design capacity of hazardous waste management unit
  - Description of hazardous waste influent to and effluent from unit
  - Up-to-date analysis or supporting information (e.g., waste knowledge)
- Records of equipment leak information required for 3 years
- Permitted facilities only – semi-annual report documenting equipment that could not be repaired in required timelines

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Subpart BB – Equipment Monitoring Summary

Equipment Type	Monitoring Frequency	Category
Pumps in light liquid service	Monthly monitoring, and Weekly visual	Leak Detection
Pumps in light liquid service designed for "no detectable emissions"	Annual monitoring	"No Detectable Emissions"
Pressure relief devices in gas/vapor service	Monitored after each pressure release event	"No Detectable Emissions"
Valves in gas/vapor or light liquid service;	Monthly; or Quarterly monitoring (if no "leak" detected for 2 consecutive months)	Leak Detection
Valves in gas/vapor or light liquid service; Designed for "no detectable emissions"	Annual monitoring	"No Detectable Emissions"
Pumps and valves in heavy liquid service, Pressure relief devices in light liquid service, and Flanges and other connectors	Monitored (within 5 days) after dis-covering a potential leak by sensory evidence	Leak Detection
Closed Vent Systems	Annually	"No Detectable Emissions"

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RCRA Subpart CC – Tanks and Containers

- RCRA Subpart CC = Title 22, Ch. 15 (LQG), Article 28.5
- Effective Dec. 6, 1996
- Addresses Air Emissions Standards for
  - Containers
  - Tanks
  - Surface Impoundments – not addressed (not expected at LQGs)
- Applies to RCRA HW at point of generation >500 ppm VOC

RCRA Subpart CC – Exemptions

- Subpart CC/Article 28.5 does not apply to
  - Containers with capacity $\leq$ 0.1 m^3 (about 26 gallons)
  - Containers in satellite accumulation areas
  - Tanks with process vents (see Subpart AA/Article 27)
  - Units managing hazardous waste with less than 500 ppmw volatile organic compounds (VOC)
  - Certain TSDF tanks (e.g., biological treatment, meets LDRs)
- The key element is VOC determination

RCRA Subpart CC – VOC Determination

- Waste determination to be done in accordance with 22 CCR 66265.1084 to ascertain applicable standards
  - VOC Content for Applicability – 500 ppmw
  - VOC controls may be applicable for tanks/containers "In Light Material Service"
    - Vapor pressure of one or more of the organic constituents in the material is > 0.3 kilopascals (2.25 mm Hg) at 20°C (68°F); and total concentration of those pure organic constituents is equal to or greater than 20% by weight

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RCRA Subpart CC – VOC Determination

- Waste Determination
  - Average VO concentration for each waste must be determined at point of generation (POG) if exempt from needing air emission control device
  - Few labs run U.S. EPA identified Test Method 25D
  - Alternative - run speciated organics (e.g., EPA 8260 / 8270) and sum each to compare against list in Appendix I to Article 28.5 (Henry's Law)
    - Use one-half detection limits for each analyte in Appendix I

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RCRA Subpart CC – Other Data

- If managed in tank, need to know vapor pressure (VP)
  - Another test not common to environmental labs – ASTM D6378
  - Determined or extrapolated to operating temperature
  - Tank must be designed to handle vapor pressure
  - The greater the vapor pressure the smaller volume allowed without controls
  - Can look at highest VP constituents

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RCRA Subpart CC – Tank Standards

- Tank Level 1 or Level 2 control

Tank Capacity	Maximum Organic VP of Waste In Tank	Level of Control per Subpart CC
< 20,000 gals. (75 m^3)	≤ 11.1 psi (76.6 kpa) > 11.1 psi (76.6 kpa)	Level 1 Level 2
≥ 20,000 gals. and < 40,000 gals. (151 m^3)	≤ 4.0 psi (27.6 kpa) > 4.0 psi (27.6 kpa)	Level 1 Level 2
≥ 40,000 gals. (151 m^3)	≤ 0.75 psi (5.2 kpa) > 4.0 psi (27.6 kpa)	Level 1 Level 2

Most LQG Tanks are expected to be <20,000 gals.

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RCRA Subpart CC – Tank Standards

- Tank Level 1 or Level 2 control
  - Level 1 control is prevention of VOC emissions
  - Level 2 control is destruction/removal of organics
  - Waste stabilization in tank always requires Level 2 controls
  - Waste stabilization in containers requires Level 3 controls

RCRA Subpart CC – Tank Standards

- Tank Level 1 Control §66265.1085(c)(1)-(c)(4)
  - If transferred to other Subpart CC regulated tank, must use hard piping
  - Must have fixed roof with no visible cracks, holes, gaps
  - All closures will be maintained closed unless adding or removing waste
  - Visually inspected annually for visible cracks, holes, or gaps in roof sections or between roofs and tank walls, damaged seals or gaskets, or any opening allowing air emissions

RCRA Subpart CC – Tank Standards

- Tank Level 1 Control §66265.1085(c)(1)-(c)(4)
  - When waste is in tank all closure devices must be secured (e.g., top hatch)
  - Spring-loaded pressure/vacuum valves, conservation vent, or similar vents to atmosphere allowed during normal operations to maintain safe working pressures

RCRA Subpart CC – Tank Standards

- Tank Level 2 Controls §66265.1085(d)
  - Fixed roof with internal floating roof
  - External floating roof
  - Vented to closed-vent control system
  - Pressure tank
  - Tank in an enclosure that is vented to an enclosed combustion device
- Each has specific standards

RCRA Subpart CC – Container Standards

Container Capacity	In Light Material Service?	Level of Control per Subpart CC
≤ 26.4 gals. (0.1 m^3)	Not Applicable	Not Applicable
> 26.4 gals. and ≤ 121 gals. (0.46 m^3)	No Yes	Level 1 Level 1
> 121 gals. (0.46 m^3)	No Yes	Level 1 Level 2

Level 3 controls apply if waste is stabilized in container (does not include just adding absorbents without mixing, agitation, curing)

RCRA Subpart CC – Container Standards

- Container Level 1 control options
  - A container meeting U.S. DOT requirements for the packaging of hazardous materials
  - A container equipped with a cover and closure devices
    - Continuous barrier over the container openings
    - When closure devices are secured in the closed position, there are no visible holes, gaps, or other open spaces into the interior
  - An open-top container in which an organic-vapor suppressing barrier is placed on or over the waste

RCRA Subpart CC – Container Standards

- Containers in Level 1 must be closed at all times, except
  - When hazardous waste is being added or removed
  - For Maintenance, or
  - When necessary to avoid unsafe conditions
- When hazardous waste is being added or removed in batches, container cannot be open for more than 15 minutes between batches

RCRA Subpart CC – Container Standards

- Container Level 2 control applies to containers >121 gallons that are “in light material service” and requires:
  - A container meeting U.S. DOT requirements for the packaging of hazardous materials
  - A container that operates with no detectable organic emissions (i.e., instrumented “sniff” test)
  - A container that has been demonstrated within the preceding 12 months to be vapor-tight (requires container to be pressurized)
- Transfers of waste must minimize exposure to atmosphere (e.g., using submerged fill lines)

RCRA Subpart CC – Container Standards

- Common Containers - Level 2

Yes

Not likely

Yes

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RCRA Subpart CC – Container Standards

- Container Level 2 Challenges – Rolloff Bins

Tarp Won't Be Vapor Tight

Closed Boxes Needed

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RCRA Subpart CC – Control Standards (§66265.1088)

- Closed vent system must route gases or vapors to a control system (reference Subpart AA control stds.)
  - Must meet 95% reduction
  - Enclosed combustion device
  - Flare
- Planned maintenance allowed for up to 240 hours/yr
- If use carbon, establish replacement frequency

RCRA Subpart CC – Inspection, Monitoring, and Recordkeeping

- Inspect and Monitor as required
- Develop and implement written plan and schedule
- Recordkeeping requirements in (§66265.1090)
  - By tank using tank identification
  - Specific requirements depend on compliance methods (e.g., record seal gap measurements if use external floating roof)
  - Certification of control systems and results of any performance tests

RCRA AA, BB & CC Air Regulations

- Background
- Quick Overviews AA, BB, CC
- Subpart AA / Article 27
- Subpart BB / Article 28
- Subpart CC / Article 28.5
- Summary Guidance

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RCRA Subpart AA, BB, CC Summary Guidance

- Make sure you have no Subpart AA equipment or if standards applied due to control device
- Identify where you have RCRA Hazardous Wastes at POG
- Do they exceed 10% organic concentration if handled in piping, pumps, relief valves?
  - Inventory all components, tag with ID
  - Determine monitoring frequency for each
  - Buy or rent instrument or subcontract

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RCRA Subpart AA, BB, CC Summary Guidance

- Monitor components, repair leakers found, and evaluate if frequency can be changed
- Record all information and maintain
- For RCRA Haz. Waste managed in tanks or containers, determine if waste at POG has >500 ppm VOCs (consider test method to use)
- If held in tanks, determine if Level 1 or Level 2 controls are required (tank size and vapor pressure)

RCRA Subpart AA, BB, CC Summary Guidance

- Annual inspection of tanks for no openings, cracks, gaps, etc.
- Use DOT approved containers or one with no detectable emissions
- Plan carefully if large containers are needed (e.g., roll-off bins, or IBCs) for RCRA Haz. Waste
- Maintain records of all inspections and waste testing

Questions?

- Webinar Questions

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- Other General Environmental Questions

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