

ISSUE BRIEFS

1. Is a leak detected during an inspection a violation?

Many facilities have argued that air emission leaks detected during an IDEM inspection are not violations. Facilities argue that the regulations only require yearly testing/inspections under CC (e.g. 40 CFR 265.1085 (c)(4)(ii)) or monthly/quarterly/etc. under BB, and leaks detected by IDEM or another regulatory agency are above and beyond the frequency and intent of the regulations. IDEM concurs in principle. As a practical matter, air emission leaks detected during IDEM inspections usually are based on other regulatory concerns. In the majority of cases, leaks are not routine or isolated. Rather, they tend to be systemic, widespread and acute. Either the facility has not conducted annual monitoring/inspections, the monitoring did not include all applicable equipment, or the equipment was not designed properly (e.g. 40 CFR 265.1085(c)(2)(4)), or the facility did not follow proper monitoring procedures under Method 21 (265.1084(d)). IDEM bases the enforcement action on the applicable regulatory cite.

2. Where does Subpart CC end and Subpart BB begin? (e.g., Is it a blind flange or is it a closure device?)

Facilities have argued that certain structures on a tank are not closure devices as defined under Subpart CC, but are instead components regulated by Subpart BB. The standard for a “leak” is less stringent under Subpart BB (10,000 ppm vs. 500 ppm/visible gap). For example, the structure pictured below seems to meet the definition of closure device found at 265.1081 if it is in a “fixed roof” or “cover”, terms which are also defined at 265.1081. In the case of a cylindrical tank, the tank itself seems to be the “fixed roof” (265.1085 (c)(2)(i)). The facility has argued that it is an open-ended line properly equipped with a blind flange as specified at 265.1056. IDEM recorded air emissions of 800 ppm at a visible gap.



3. What are the benefits of Subpart BB/CC? Many facilities use mass balance calculations to obtain air permits. Aren't fugitive emissions accounted for and permitted? How do you calculate potential for harm? Facilities have permits to emit tons of emissions, and then are fined for leaks of 500 ppm

Self-explanatory. Facilities are arguing on general grounds that they are being overregulated, or regulated under two different, contradictory, and inconsistent programs. In some cases, equipment subject to monitoring such as pumps, valves and flanges are located inside structures such as paint booths that have a point source permit for the emission stack.

4. Is anybody finding leaks under Subpart BB? Wouldn't a leak show up as a drip?

In every case where IDEM has found components in light liquid service with detectable air emissions, there has been a visible leak.

5. Is it cheating to use a PID to find visible cracks on equipment? For Level 1 tanks, is monitoring required? How can a company determine there is no detectable emission without monitoring?

IDEM routinely uses monitoring equipment to screen Level 1 tank systems. When leaks are detected, IDEM staff visually inspects Level 1 tank equipment for visible gaps, cracks, etc. Companies have complained that using monitoring equipment is inappropriate since the standard at 40 CFR 265.1085 (c)(4)(i) is a visual inspection. IDEM is also confused by the regulatory requirement for Level 1 tanks at 40 CFR 265.1085 (c)(3)(ii), where it specifies that conservation vents must be operated with no detectable emissions when they are in the closed position. "No detectable emissions" is defined at 265.1084(d)(8) as 500 ppm using Method 21. The requirement that conservation vents must be operated with no detectable emissions would seem to require the use of monitoring for Level 1 tanks. IDEM routinely finds conservation vents that leak in the closed position.

6. Is "tagging" under BB actually required? If so, to what extent.

Facilities have argued that the common practice of "tagging" individual components is not a regulatory requirement. At 265.1050(c), there is merely a reference to marking equipment so it can be distinguished from other pieces of equipment. Facilities have argued that the intent is to distinguish equipment that is subject to monitoring from equipment that is not required to be monitored. The intent is not to individually identify specific components in the field. The requirement for individual component identification is found in the recordkeeping provisions of 265.1064. Therefore, any marking such as distinctive paint, line labeling, distinctive jacketing, etc., would meet the requirement and actually be more functional and practical than "tagging". IDEM concurs.

7. Why is exemption for difficult-to-monitor valves only applicable to equipment installed prior to 1990?

IDEM has found that many valves have been installed since 1990 and would seem to have the same concerns as those installed prior to '90.

8. Definition of "vent", allowable use of vapor balancing don't seem consistent with requirement to vent Level 2 tank emissions through a control device

IDEM has become aware of Level 2 tank systems where vapors from the tanks are routed back to trucks that have unloaded into the tank system. The regulations at 265.1085(g) seem to require emissions from Level 2 tanks to be vented through a control device. Facilities are arguing that they are employing a vapor balancing system envisioned and allowed under the Level 2 container provisions found at 265.1087(d)(2). Also, facilities argue that under the

definition of “vented” found at 264.1030, they are not “venting” since there is no release to the atmosphere and tank loading/unloading is not considered venting

9. How is ancillary equipment regulated? Filter housings, pump wells/sumps, purge pots, strainers, etc.

IDEM is aware of many components in tank systems that do not seem to be covered under Subpart BB that are potential sources of air emissions. It may be possible to consider many of these components as connectors.

10. Under CC, no recordkeeping requirement to identify individual components. There is no way to determine if companies are inspecting/monitoring applicable equipment.

Equipment subject to monitoring under Subpart BB must be individually identified. IDEM is not aware of similar requirements for specific tank components under Subpart CC. There is confusion in the regulated community as to what types of equipment are subject to monitoring and inspection. In some cases, hatches are inspected but other closure devices such as level sensors, vacuum valves, pressure relief devices, and mixing shafts are not.

11. General Issues:

-IDEM has been challenged on whether our techniques and procedures follow method 21

-IDEM has found that it is critical to be aware of tank system operating conditions. Staff must be aware of whether the system is filling, whether mixers and agitators are functioning, if pumps are operating, temperature/weather conditions, etc.

-IDEM has typically found air emissions at mixer shafts, o-rings and gaskets on hatches (especially under cold conditions), seals on vacuum relief valves when the system is under positive pressure, openings where level sensors (both mechanical and electronic) are fastened, seals on pressure relief devices when they are in their normally closed position, missing hatch bolts, and misc. openings without closure devices of any kind.

-Safety issues are critical. Staff must be aware of safety considerations including the proper use of climbing harnesses and confined space awareness. The possibility exists for acute exposure to emissions.