

**CLARIFICATION NUMBER CAO-00-006, REV. 2**  
**HEADSPACE GAS VENTING**

**ISSUE**

1. Does the requirement that all waste containers with unvented rigid containers greater than 4-liters shall be subject to innermost layer of containment sampling or shall be vented prior to initiating drum age and equilibrium criteria mean that all the 4-liter plastic jugs in the drums have to be vented before sampling, or is this referring to the venting of the inner drum liner only? B1-1a
2. If this refers to the drum liner, is it permissible to have the liner vented through the filter? B1-1a and B1-1a(3)(i)
3. Is a nominal 1-gallon container (with top or lid in place) that will hold 4.1 liters when filled to brim, a > 4-liter container per the permit language? B1-1a
4. Is a rigid container (glass or plastic jug/jar with screw top in place) considered to be sealed container? B1-1a
5. Is a 8 liter container filled with 6-liters of absorbent (oil dry), with a top or lid in place, considered to be a > 4-liter container? B1-1a
6. Can a representative sample be obtained between the drum lid and the sealed rigid liner? B1-1a(3)(ii)
7. Can the CBFO make any recommendations on meeting the permit's Section B1-1a(3)(ii) condition for breaching the drum lid with a punch? B1-1a(1), B1-1a(2), and B1-1a(3)(ii)

**CONCLUSION**

1. This provision applies to all containers, greater than 4-liters, regardless of their location in the container.
2. Yes, this applies to the sealed rigid liner.
3. If the generator site determines that the container can hold greater than 4-liters, then it is subject to the permit requirements covering >4-liter containers.
4. If the screw top provides an air-tight seal, then a glass or plastic jug/jar with a screw top in place is considered to be a sealed container. In addition, slip top, clam shell or other similar containers that are taped around the circumference are considered sealed.

5. An 8-liter container, regardless of its contents is considered to be a > 4-liter container.
6. The volume between a drum lid and the rigid liner is considered to be representative if the rigid liner is vented and the drum aging criteria have been met.
7. The NMED approved a Class 2 permit modification on March 1, 2002 to the WAP, Sections B1-1a(1), B1-1a(2), and B1-1a(3)(ii) that allows the use of a self-tapping screw.

## **DISCUSSION**

- 1, 3, 5, & 6. NMED's concern is that VOC headspace samples be representative of all sample container volumes within the drum. The threshold for this is 4 liters. This concern is addressed by the Permit's requirement to vent rigid containers greater than 4 liters prior to drum aging, or to subject the container to separate headspace gas analysis. In addition to meeting these permit requirements, generator sites need to be aware that the TRUPACT-II Authorized Methods for Payload Control (TRAMPAC), Section 2.8.1 states "Sealed containers greater than 4 liters (nominal) are prohibited except for Waste Material Type II.2 packaged in a metal container." Therefore, given that it will seldom ever be permissible for the sites to ship sealed containers greater than 4 liters, it would seem prudent to meet the Permit requirement by venting the container rather than subjecting it to separate headspace gas analysis.
2. Drum venting can include a hole in the rigid liner with or without a filter installed.
4. Based on hydrogen gas diffusion studies at several sites, sealed containers that are taped around the circumference (as a form of seal) do not diffuse gas as readily as untaped containers. Therefore, such taped containers are considered to be sealed for the purpose of compliance to the permit.