

Rule Interpretation Summary Form

Code Number:	265-193.001
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Rule/Regulation Citation(s):	<p style="text-align: center;">Federal Rule: <u> X </u> State Regulation: <u> </u></p> <p>40 CFR §265.193(b), states that secondary containment "...must be designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and must be capable of detecting and collecting releases and accumulated liquids until the collected material is removed."</p> <p>40 CFR §265.193(f), states that ancillary equipment (piping, fittings, valves, flanges, pumps, etc.) "...must be provided with full secondary containment (e.g. trench, jacketing, double-walled piping) that meets the requirements of paragraphs (b) and (c) of this section..."</p>
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Description:	Determine if Teflon bags meet secondary containment requirements
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Interpretation Request:

Do Teflon bags which are sealed with Teflon and duct tape meet the requirements for secondary containment as per 40 CFR §265.193, with regard to ancillary equipment?

Determination:

<p>Question 1: Do Teflon bags which are sealed and secured with Teflon and duct tape meet the requirements for secondary containment as per 40 CFR §265.193, with regard to ancillary equipment? Answer 1: No.</p> <p>Question 2: Do Teflon bags which are sealed and secured with Teflon and duct tape constitute adequate leak detection? Answer 2: Yes.</p> <p>The Teflon bags do not meet the requirements of the regulation or even the intent of the regulations as outlined in the 1985 preamble because certain questions could not be answered. Without evidence to support the claim that the Teflon bags meet the secondary containment requirements, the Rule Interpretation Team could make no other decision than that the bags could be used as a leak detection method, but not as a stand alone secondary containment method. Some of the issues discussed by the team in making the determination were:</p> <ol style="list-style-type: none"> 1. How hazardous waste would be contained if the ancillary equipment were to experience a complete failure or catastrophic rupture at a time other than during the once daily inspection. 2. How much weight the taped seals could withstand before break-through. 3. How much pressure the bag could withstand before rupturing. 4. How much (volume, weight, or combination) hazardous waste the Teflon bag could contain, based on different rates of seepage, in the approximately 24 hours between the once daily inspections.
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Background Information and Rationale:

A facility has five (5) hazardous waste boiler feed tank systems that are subject to the secondary containment requirements of 40 CFR §265.193. Ancillary equipment from the point of hazardous waste generation to the hazardous waste boiler feed tanks includes 287 threaded valves, fittings, and connections in overhead piping. Teflon bags are placed around the ancillary equipment and sealed with Teflon tape, then duct tape. The Regional Office believes that the Teflon bags constitute adequate leak detection, but not adequate secondary containment for the ancillary equipment. The bags are not designed, installed, or operated to prevent any migration of wastes or accumulated liquids from the system, nor are they capable of detecting and collecting all releases and accumulated liquids until the collected material can be removed. The regulated entity has indicated to Region personnel that the secondary containment

requirements are met through the use of the Teflon bags and tape.

Regulated entity's comments to Region personnel:

1. The regulation does not require that the secondary containment equipment be able to withstand internal pressures, therefore the Teflon bags constitute adequate secondary containment.
2. The Teflon bags are inspected daily for leaks.
3. The Teflon bags are compatible with the waste.

Regional Office's comments:

1. The Teflon bags are compatible with the waste.
2. The Teflon bags constitute adequate leak detection.
3. The rule does not explicitly prescribe a volume or capacity requirement for the secondary containment of ancillary equipment. However, the general requirements for secondary containment state that secondary containment must prevent any migration of wastes or accumulated liquid out of the system, and be able to collect all releases and accumulated liquids until the collected material is removed. The June 25, 1985, Federal Register Preamble Section V.E.4.c. (Page 26477) states that "50 percent or more of releases from tank systems can be attributed to failure of a component of the ancillary equipment... releases from this equipment must be adequately controlled...only secondary containment can completely prevent such releases..." The language in the preamble, combined with the specific examples for secondary containment of ancillary equipment provided in 40 CFR §265.193(f) (trench, jacketing, and double walled piping), implies that the USEPA intended that the secondary containment capacity for ancillary equipment be adequate to contain the volume of the material contained within the equipment.
4. The regulated entity has not documented that the Teflon bags, installed with Teflon and duct tape, have sufficient strength or thickness to prevent failure due to pressure gradients, weight of the pressure exerted by the material contained in the bag, the force with which material may initially enter the bag, climatic conditions, and/or the stress of daily operation, as required by 40 CFR §265.193(c).
5. The Teflon bags are subject to varying weather conditions (i.e. sun, wind, rain, heat, etc.).
6. The ancillary equipment is located in an overhead pipe rack and although the bags are inspected daily for leaks, it does not appear that the regulated entity actually inspects the physical condition of the bags or the tape.

The TNRCC issued a hazardous waste permit for one of the regulated entity's facilities. In Part B of the referenced permit application under the heading "Secondary Containment" is a description of the Teflon bags which are referenced as "containment bags." The regulated entity claims to be using these "containment bags" in accordance with the permit at that facility and have indicated to Region personnel that the same should be adequate for another of their permits. This issue was not addressed as part of the scope of rule interpretation.

The rationale for the interpretation was based on the requirements in 40 CFR §265.193 and the 1985 preamble to the rule. The team asked itself several questions related to the use of the Teflon bags as a method of secondary containment:

1. Do the bags meet the intent of the rule (to prevent releases of waste material to the environment)?
2. Will the bag prevent a release if the ancillary equipment experiences a complete failure?
3. Will the bags withstand exposure to the elements (wind, sun, rain, heat, etc.)?

When these questions were asked, the team's answers were "no". Therefore, the team determined that the bags could be used as a method of leak detection, but did not meet the requirements of or the intent for secondary containment.

Analysis of Impacts/Consequences of Determination:

Pro: The advantage of this interpretation is that the TNRCC now has documented guidelines for meeting the requirements of 40 CFR §265.193 for ancillary equipment. It has been determined what types of documentation should be provided in order to make a determination of whether a piece of equipment meets the requirements for secondary containment for ancillary equipment. This will assist investigators during facility investigations and can be used by permit writers when reviewing permit applications.

Additionally, the facility referenced in this document will be required to make changes necessary to meet the secondary containment requirements. As a result of those changes, the potential for a release of waste to the environment will be reduced, which is the intent of the regulations.

Con: The disadvantage of this interpretation is that the regulated entity may incur lost resources, both time and money, to either replace the bags with adequate secondary containment or utilize ancillary equipment for which secondary containment is not required (i.e. welded connections). This impact will occur at one facility, possibly more.