



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

February 7, 2008

Ron Bunofsky
Astro Shapes
65 Main St.
Struthers, OH 44471

**RE: ASTRO SHAPES, CEI - LQG, OHD 154 165 591, MAHONING COUNTY
TANK ASSESSMENT/PARTIAL RETURN TO COMPLIANCE**

Dear Mr. Bunofsky:

Thank you for your response to Ohio EPA's November 7, 2007 letter regarding Astro Shapes' tank assessment. Your response was received via e-mail on December 17, 2007.

Please *disregard* Ohio EPA's letter dated January 29, 2008. That letter was sent by mistake.

Below is Ohio EPA's response to your comments:

1. **Astro Shapes' comment:**

The Spent Caustic Tank has a calculated inside volume of 6,499 gallons (adjusted slightly from the 6,477 gallons reported in our July 2007 Assessment Report). The Spent Caustic Tank containment is a combination vault and liner system comprised of a welded seam, 1/8" thick carbon steel containment box that it supported on three sides by concrete block walls and steel framework and on a fourth side by a (more substantial) steel framework. As noted in Section 4.3 of the July 2007 Assessment Report, the containment box and tank rest on a reinforced concrete floor with adequate sub-base. The net volume of the containment, based on the dimensions provided on Attachment 2 of our July 2007 Assessment Report and considering the 50% caustic tank and ancillary equipment, is calculated to be 6,440 gallons as noted on the attached calculation.

The 6,440 gallon containment volume is somewhat larger than the 6,300 gallons I reported to you verbally during our recent discussions. In reviewing the calculations, our engineer identified the following two discrepancies: (1) In originally determining the net containment capacity, the total available volume of the two tank overflow drums (one placed under each tank's overflow pipe) was subtracted from the containment volume. However, these drums are a precaution in the event of tank overflows and observed to be empty on a daily basis as part of the daily tank inspections.

These two drums account for 110 gallons. (2) Also, in originally determining the net containment capacity, the ancillary equipment inside the containment was roughly estimated at 10 CF. However, these ancillary items were recently calculated to be 6 cubic feet (as on the attached calculation sheet). The difference, 4 cubic feet is equivalent to 30 gallons. These two discrepancies add up to 140 gallons, which when added to the previous 6,300 gallons totals 6,440 gallons, which is slightly (59 gallons) under the tank's calculated capacity of 6,499 gallons.

As indicated in our July 2007 Assessment Report, Astro Shapes controls the volume of the tank to 5,800 gallons, which is within the net containment volume of 6,440 gallons. In order to ensure that the volume in the tank is controlled at this level, Astro proposes to install a new programmable level control on the tank that activates a visible alarm (amber light) in the dye room as well as a local audible alarm, when the liquid in the tank reaches a level equivalent to 5,800 gallons (165"). At this level PLC controls will lock out the sump pump (the only source feeding the tank), close all drain lines from the vats and shut down the automatic drain command in the control panel.

Ohio EPA's response:

Ohio EPA has determined that upgrading the high level alarm to include an audible signal and automatic shut-off is acceptable.

2. **Astro Shapes' Comment:**

As indicated above, the secondary containment has all welded seams, resulting in the containment being a single piece of carbon steel, which is the same type of steel as the tank and which is chemically compatible with caustic (sodium hydroxide). As such, the requirements of 3745-66-93 (E)(1)(e) do not apply.

Ohio EPA's response:

Ohio EPA has determined that this is acceptable for meeting the requirements of Ohio Administrative Code (OAC) rule 3745-66-93(E)(1)(e) regarding chemically resistant water stops at all joints in the containment.

3. **Astro Shapes' Comment:**

The 1/8" thick steel containment liner rests on the concrete floor. As the containment area is relatively small (~255 square feet) and is inspected daily, any leakage would be detected and removed promptly. Removal would be accomplished by vacuum or other appropriate means and the spillage placed back into the tank or into a compatible portable container that will be labeled "Hazardous Waste" with the date and taken to the plant hazardous waste container accumulation area (within three days), where it will be inspected weekly until it is shipped off site.

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Ohio EPA's response:

OAC rule 3745-66-93(C)(4) states that a containment system must be "sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills or precipitation...". The manner in which Astro Shapes operates the containment system in the event of a spill meets the requirements of this rule; therefore, additional information about the slope of the containment system is not needed. Ohio EPA's request for this information is withdrawn.

Ohio EPA will return Astro Shapes to compliance on the outstanding violation from the May 24, 2007 Notice of Violation (NOV) upon receipt, in writing, of documentation showing that the high level alarm in the tank has been updated to include both an audible signal and an automatic shut-off as proposed:

**3. Evaluation of Wastes
OAC 3745-52-11**

Failure to list specific deficiencies in this communication does not relieve Astro Shapes from the responsibility of complying with all applicable Ohio EPA laws and regulations. Please be advised that present or past instances of non-compliance can continue as subjects of pending or future enforcement actions.

Please feel free to contact me at (330) 963-1170 if you have any questions.

Sincerely,



Edward J. D'Amato
Environmental Specialist
Division of Hazardous Waste Management

EJD:ddw

cc: Natalie Oryshkewych, DHWM, NEDO
ec: Frank Popotnik, DHWM, NEDO
Robert Almquist, DHWM, NEDO
Harry Sarvis, DHWM, CO