

# DOH Wastewater Management Program



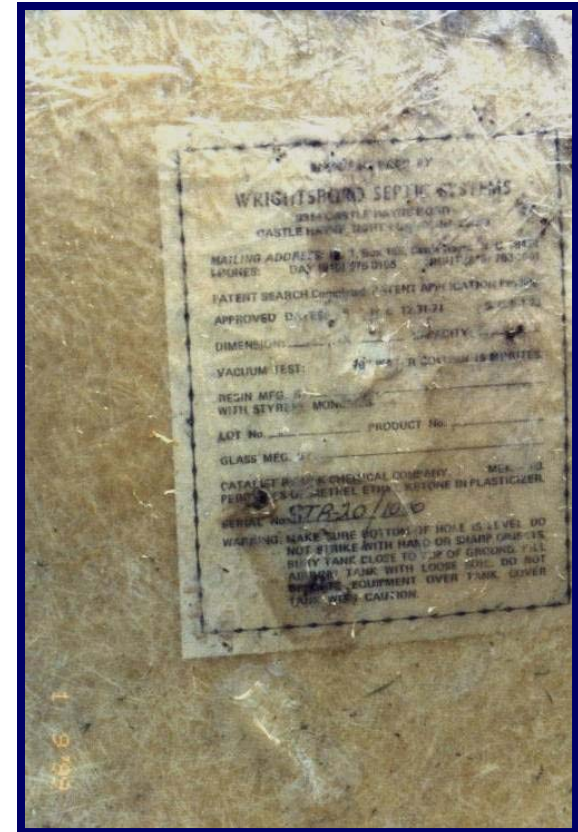
**PUBLIC HEALTH**  
ALWAYS WORKING FOR A SAFER AND  
**HEALTHIER WASHINGTON**

## Sewage Tanks Rule Advisory Panel Meeting

June 12, 2008

## Issue No. 5 – Label

- Should every tank be labeled?



## Issue No. 5 – Label Current RS&G

### 3.9. Identification (Page 19):

- Permanent label on the top near inlet:
  - Manufacturer name or logo
  - Liquid capacity in gallons
  - Model # and manufacturing date
  - Maximum burial depth
- Inlet and outlet

# Issue No. 5 – Label ASTM C 1227-08

## 13. Product Marking:

- Within 2' of the inlet to the tank by indentation or other approved means:
  - Date Manufactured
  - Name or trademark of manufacturer
  - Tank capacity
  - Maximum burial depth & other design loads
  - Meets ASTM
  - “Entrance into the tank could be fatal”

# Issue No. 5 - Label IAPMO/ANSI Z1000-2007

## 6. Marking and Identification:

- Permanently and legibly marked:
  - Manufacturer's name or trademark, or both
  - Model number
  - Capacity
  - Month and year of manufacture
  - Load limits and maximum burial depth
  - Inlet and outlet

## Issue No. 5 - Label IAPMO/ANSI Z1000-2007

- Marking on a plate permanently attached, molded, cast, or wet set onto the tank.
- On left hand side of inlet or on top of tank near inlet.
- Protected from corrosion & remain legible.
- Copy of installation instructions.

## Issue No. 5 - Label

- Should every tank be labeled?
- If yes, what should the label include?
- Where should the label be located?

## Issue No. 11 - Transition

Phase-out time period for tanks on existing approved list:

- Existing list will become “static” on the effective date of tank rules (i.e. May, 2009)
- Will remain in effect for one year (i.e. May, 2010)
- Between May, 2009 and May, 2010 tanks on the current list may be used
- After May, 2010 only tanks on the new list can be used

# Issues 7&8 – Structural Design Requirements

- What are the required calculations for approval?
- What design parameters should be used?

# Issues 7&8 Calculations Current RS&G

## 3.1. General Requirements (Page 13):

- Designed to withstand all anticipated loads
- Support a dead load at least 3' of cover at 110 lb/cu.ft. and 2500 lbf over critical elements
- Minimum lateral loads
- Traffic bearing tanks
- Buoyancy effects

# Issues 7&8 Calculations

## ASTM C 1227-08

### 6. Structural Design Requirements:

- By calculation or by performance
- Strength design method or alternate design method
- Demonstrate failure will not occur by physically applying loads
- Minimum live load at surface 300 lbf/sq.ft.

# Issues 7&8 Calculations IAPMO/ANSI Z1000-2007

- Tanks and covers designed for 500 lbs/sq.ft. when maximum cover is 3'
- Structurally sound to withstand loads
- Traffic tanks
- Access riser design

# Issues 7&8 Calculations Oregon State

## 340-073-0025 (5) Structure:

- Earth load of 300 lbs/sq.ft with maximum 3' of cover
- Lateral load 62.4 pcf of equivalent fluid pressure
- Withstand external hydrostatic loads
- 2500 lb wheel load over critical element

# LOSS Rule Technical Committee Summary

- If a septic tank is the primary treatment component for residential:
  - Min. 1000 gallon per ERU for common tank
  - Individual tanks follow WAC 246-272A
- For non-residential: minimum 3 times the design flow
- Effluent screen is required.

# LOSS Rule Technical Committee Summary

- Pump chamber volume = dead space + dose volume + surge volume + emergency reserve
- Emergency reserve = 12 hours if design flow is > 14,500 gpd
- Emergency reserve = 24 hours if design flow is 3,500- 14,500 gpd

# LOSS Rule Technical Committee Summary

- For 3 feet of cover or less: minimum 20” tank opening & 24” riser
- For > 3 feet of cover: minimum 30” riser
- There should be an access opening every 8 feet of compartment length
- Require testing for water tightness after installation – 2” above riser connection

## Minimum Distance Between Access (#16)

- Old RS&G:
  - Maximum distance of 5' from any wall &
  - No more than 10' to the center of next access
- New Mexico:
  - When first compartment exceeds 12' add an access over the baffle
- Ohio: Above inlet & outlet. Above wall unless the transfer port is a pass through opening

# Does Modifications Void Approval (#9)

- Examples in current RS&G:
  - Changes in volume
  - Wall thickness
  - Access ports design
  - Sealing mechanisms
  - Inlet/outlet design

## Tanks for Proprietary Systems (#4)

- Current RS&G excludes tanks that underwent NSF or ETV testing
- NSF protocol requires only a visual assessment after burial
- Should we require all tanks to be on the approved list?

## Specific Standards For Other Tanks (#10)

- Do we need to add specific standards for other tanks? For example ATU tanks