

STP Land Application Site Operation and Maintenance



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You've found a suitable site, gotten the required approvals and certification from the landowner, the County, and the State, the checklist EA has been done and the new site has been added to your approved disposal site list – so now, what do you do?

You start applying.

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How do you land apply?

Rules allow 3 different methods:

- Direct Injection
- Incorporation
- Alkali-stabilization

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Injection



Notice that the pumpings are injected below the soil surface

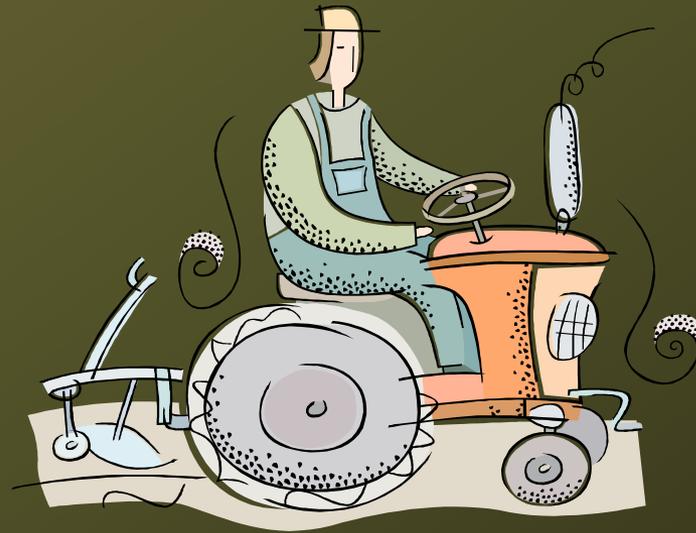
Do you notice any liquid on the surface?

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Incorporation

→ Rules require tilling within 6-hours of land applying

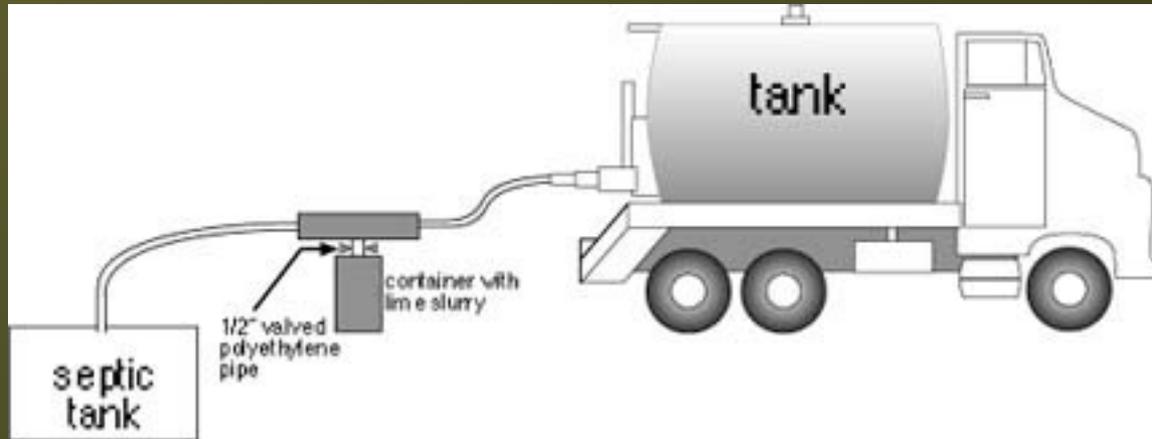
→ Material must be incorporated into the soil plow layer (typically the upper 4 – 6 inches)



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Alkali-stabilization (liming)

→ Rules require that pH be raised to and remain at 12 for at least 30-minutes



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Alkali-stabilization (liming)

→ Liming requires use of hydrated lime to raise the pH to 12

→ pH meter or pH test strips can be used to measure pH



pH Meters

pH Meters



pH Test Strips



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Alkali-stabilization (liming)

→ Liming is **REQUIRED FOR APPLICATION ON FROZEN GROUND** unless the landowner provides the pumper a certification statement that states the landowner objects to the disposal of pH stabilized waste

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Incorporation and Alkali-stabilization both require application via spreader bar or splash plate

Spreader bar or splash plate may be detachable

They *must* be used

















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Litter Removal

- Rules require the removal of all non-putrescible litter within 6-hours of application
- Pumpers may be required to screen all pumpings before land disposal if the Department determines that the litter control program is inadequate





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**Inadequate Litter
Removal**

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Inadequate Litter Removal 10.10.2005

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Inadequate Litter Removal

10.10.2005



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Odor Management

Causes of odor problems at land application sites:

- Improper VAPR
- Over-application



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Proper site management minimizes complaints

Minimize visual and odor impacts by following the rules

If in doubt, contact the Solid Waste Program

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Finally.....

The Good,....







The Bad,....





and the Ugly....











The End

Questions/Comments