

US EPA ARCHIVE DOCUMENT

ASTSWMO's Bioreactor Landfill Work Group

A Multiple State Regulatory Perspective

US EPA Work Shop on Bioreactor Landfills

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Arlington, VA

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Division of Solid & Hazardous Materials**

On Behalf of:



ASTSWMO's Bioreactor Landfill Work Group

- States Represented: CA, DE, KY, NY, TN, VT, VA, and WI.
- Develop comments on behalf of ASTSWMO in response to US EPA's April 6, 2000 request for information on bioreactor landfills.
- Track US EPA progress developing regulations and guidance on bioreactor landfills.



ASTSWMO's Bioreactor Landfill Work Group

Where the Work Group Stands on Bioreactor Landfills

- Recognize the merits of bioreactor LF concepts:
 - ✓ Optimizes waste compaction and increases waste density.
 - ✓ Conserves disposal capacity and land resources.
 - ✓ Reduces volume of leachate and pollution potential of leachate.
 - ✓ Enhances LF gas quality and potential for energy recovery.
 - ✓ Minimizes long-term pollution potential of the waste in landfills.
- Decision to conduct bioreactor operation is up to the LF owner and should not be a regulatory mandate.
 - ✓ LF owner should request State approval to conduct bioreactor landfill.
 - ✓ Bioreactor proposals need to be evaluated on site specific basis.
 - ✓ Some LFs may not be allowed to conduct bioreactor operations based on site specific conditions and State evaluations.

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Where the Work Group Stands on Bioreactor Landfills

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- Consider bioreactor LF as an alternative LF operational option.
 - ✓ Maintain liner, operational compliance and FA requirements.
 - ✓ Post-closure monitoring time frame reductions need to consider site specific data generated by the bioreactor operation.
- Should be conducted only at properly lined LF as approved by the State.
 - ✓ More data needs to be collected prior to bioreactor concepts being used at old unlined landfills.

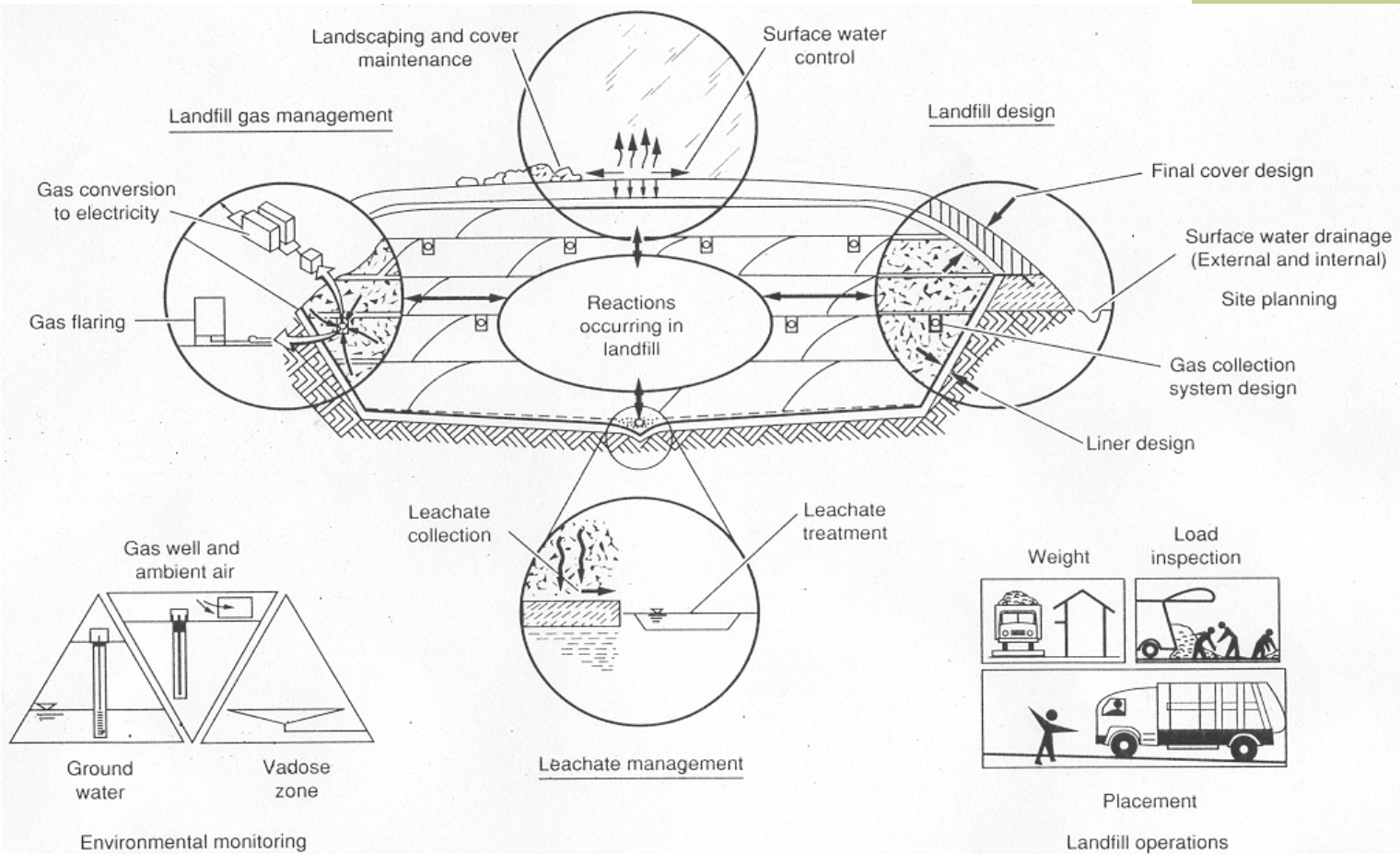
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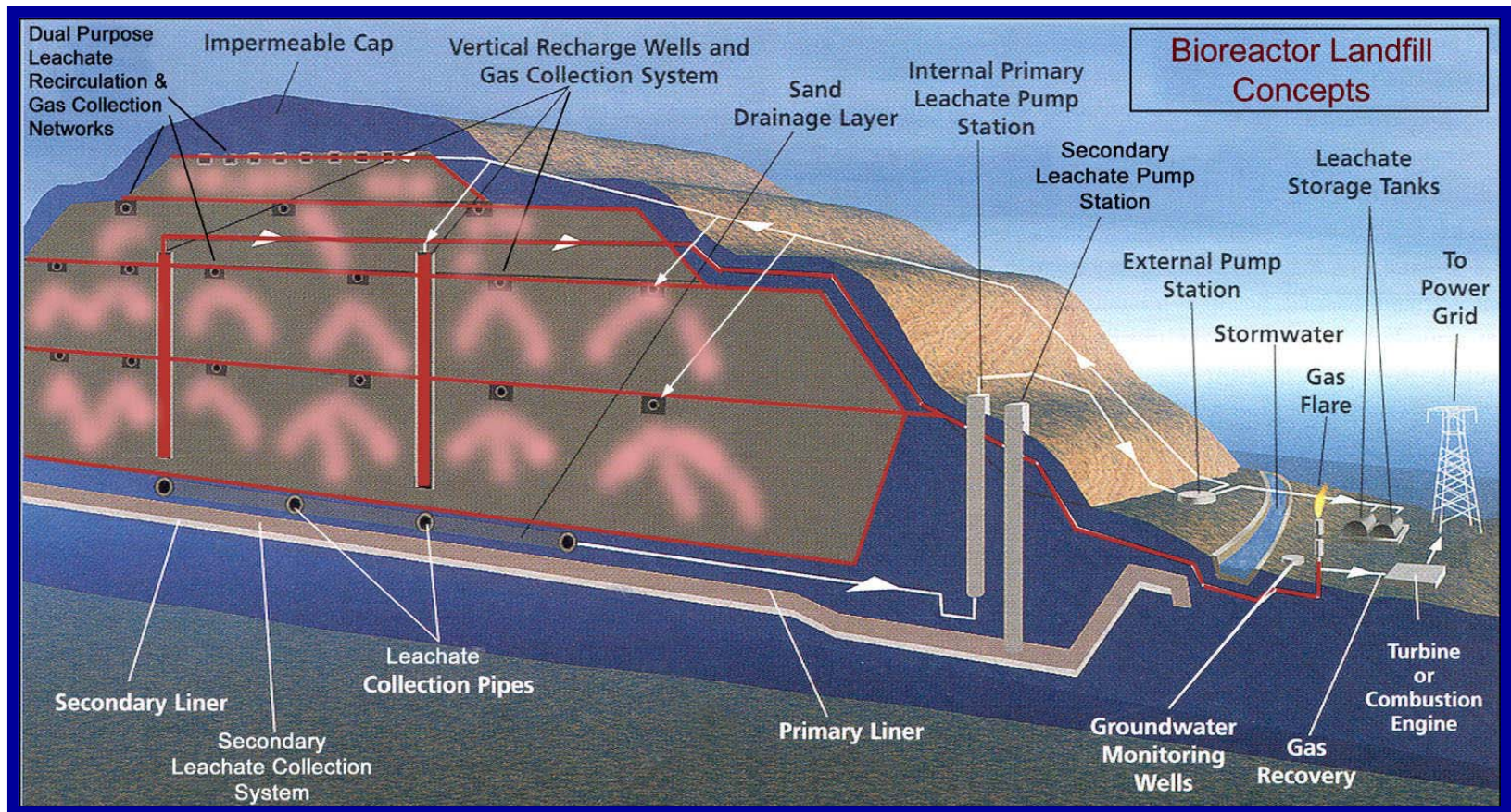
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- Federal regulatory flexibility needs to be imparted to individual states to maximize bioreactor operation benefits:
 - ✓ bioreactor landfill operation approvals,
 - ✓ specifying minimum liner design for bioreactor landfills,
 - ✓ State approval to recirculate bulk aqueous liquids other than leachate in a bioreactor landfill needs to be made at the state level.
 - ✓ proposed RD&D regs will be an integral component for regulatory flexibility regarding MSW landfill regulatory requirements.
- Recommends that federal technical guidance on bioreactor landfill concepts and post-closure monitoring is needed.

Modern Landfill Concepts



Bioreactor Landfill Concepts



Thank you for listening.



Association of State and Territorial

ASTSWMO

Solid Waste Management Officials

RD&D Permit Considerations for State Regulators

- ◆ RD&D evaluations should be conducted on a case-by-case basis:
 - ✓ Must demonstrate why compliance is not appropriate or that benefits/improvements can not be attained otherwise under current regs.
 - ✓ Has anything similar been proposed ? If so, how is the proposal different ?
- ◆ Demonstrate no adverse impacts on public health, safety or welfare, the environment, and natural resources.
- ◆ Define project scope:
 - ✓ Project Size – can allow for full or limited scale demonstrations.
 - ✓ Time Frame – can not be of a continuing nature, maximum duration is 12 years.
- ◆ RD&D proposals may be subject to:
 - ✓ Increased performance monitoring & inspections;
 - ✓ Additional reporting; and
 - ✓ Special permit conditions.