

APPENDIX A

Regulatory Compliance Assessment Tools

Table 23A-1. Regulatory compliance assessment: Design and construction considerations for manure storage systems.

Regulatory Issue	Is this issue addressed by regulations? If "Yes," summarize those regulations.	Is my livestock/poultry operation in compliance?
Siting Issues		
Are regulatory buffer distances required for a manure storage facility?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Are separation distances required to wells, sinkholes, or surface water supplies?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Are there required flood plain or water table considerations in siting a manure storage facility?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Are there regulated site conditions specific to construction of an earthen manure impoundment?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Soil and Geology Considerations		
Is a soil evaluation required to construct a manure storage facility?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Is a geologic evaluation below the storage structure required for a manure storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Design/Construction Documents Required		
Are engineering design and construction plans required for a manure storage facility?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Are engineering plans required to be prepared and stamped by a registered professional engineer?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Is a Construction Quality Assurance plan required of the contractor and/or designer?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Storage Features		
Are safety requirements such as signage or fencing required for manure storage facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know
Are there secondary containment requirements for unplanned discharges?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, summarize:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/> Don't Know

Table 23A-2. Regulatory compliance assessment: Liner considerations for manure storage systems.

Regulatory Issue	Is this issue addressed by regulations? If "Yes," summarize those regulations.	Is my livestock/poultry operation in compliance?	
Liner Information Requirements			
Are there specific requirements for liner construction?	___ Yes ___ No If Yes, summarize:	___ Yes ___ No ___ Not applicable ___ Don't Know	
Are there permeability or seepage limits?	___ Yes ___ No If Yes, summarize:	___ Yes ___ No ___ Not applicable ___ Don't Know	
Are there pre-construction requirements for permeability testing of soils to be used in liner construction?	___ Yes ___ No If Yes, summarize:	___ Yes ___ No ___ Not applicable ___ Don't Know	
Are there post-construction requirements for permeability or seepage testing of completed liner?	___ Yes ___ No If Yes, summarize:	___ Yes ___ No ___ Not applicable ___ Don't Know	
For an existing non-permitted facility, are their requirements for documenting permeability or seepage rate?	___ Yes ___ No If Yes, summarize:	___ Yes ___ No ___ Not applicable ___ Don't Know	
Liner Testing Requirements			
Test or Analysis	Description	Required by my State	Regulatory Limit
Liquid Limit (LL)	Minimum moisture content of soil/water mixture at which mixture behaves like a liquid (can be stirred).	Pre-construction? ___Yes ___No Post-construction? ___Yes ___No	
Plastic Limit (PL)	Minimum moisture content of soil/water mixture at which mixture behaves like a plastic solid (can be rolled into ball or thread).	Pre-construction? ___Yes ___No Post-construction? ___Yes ___No	
Plasticity Index (PI)	Liquid limit minus plastic limit. Indicates range of moisture contents that soil behaves as a plastic solid. A larger number is more ideal for constructing a liner.	Pre-construction? ___Yes ___No Post-construction? ___Yes ___No	
Standard Proctor density	Maximum density of soil when compacted at optimum moisture. Soils compacted to 90%-95% of Proctor density are least permeable.	Pre-construction? ___Yes ___No Post-construction? ___Yes ___No	
Coefficient of permeability	Soil characteristic that defines its resistance to the movement of liquid.	Pre-construction? ___Yes ___No Post-construction? ___Yes ___No	
Seepage rate	Combines soil permeability, liner thickness, and pond depth to calculate flow of liquid through soil per unit of pond area.	Pre-construction? ___Yes ___No Post-construction? ___Yes ___No	
Particle size or sieve analysis	Divides a soil sample into portions based on particle size. A larger fraction of smaller particles provides better material for a liner.	Pre-construction? ___Yes ___No Post-construction? ___Yes ___No	