

Cattle Farm Waste Management Odor Control Checklist

Source	Cause	BMPs to Minimize Odor	Site Specific Practices
Farmstead	<ul style="list-style-type: none"> • Dairy production 	<ul style="list-style-type: none"> <input type="checkbox"/> Vegetative or wooded buffers <input type="checkbox"/> Recommended best management practices <input type="checkbox"/> Good judgment and common sense 	
Paved lots or barn alley surfaces	<ul style="list-style-type: none"> • Wet manure-covered surfaces 	<ul style="list-style-type: none"> <input type="checkbox"/> Scrape or flush daily <input type="checkbox"/> Promote drying with proper ventilation <input type="checkbox"/> Routine checks and maintenance on waterers, hydrants, pipes, stock tanks 	
Bedded areas	<ul style="list-style-type: none"> • Urine • Partial microbial decomposition 	<ul style="list-style-type: none"> <input type="checkbox"/> Promote drying with proper ventilation <input type="checkbox"/> Replace wet or manure-covered bedding 	
Manure dry stacks	<ul style="list-style-type: none"> • Partial microbial decomposition 	<ul style="list-style-type: none"> <input type="checkbox"/> Provide liquid drainage for stored manure 	
Storage tank or basin surface	<ul style="list-style-type: none"> • Partial microbial decomposition • Mixing while filling • Agitation when emptying 	<ul style="list-style-type: none"> <input type="checkbox"/> Bottom or mid-level loading <input type="checkbox"/> Tank covers <input type="checkbox"/> Basin surface mats of solids <input type="checkbox"/> Minimize lot runoff and liquid additions <input type="checkbox"/> Agitate only prior to manure removal <input type="checkbox"/> Proven biological additives or oxidants 	
Settling basin surfaces	<ul style="list-style-type: none"> • Partial microbial decomposition • Mixing while filling • Agitation when emptying 	<ul style="list-style-type: none"> <input type="checkbox"/> Liquid drainage from settled solids <input type="checkbox"/> Remove solids regularly 	
Manure, slurry, or sludge spreader outlets	<ul style="list-style-type: none"> • Agitation when spreading • Volatile gas emissions 	<ul style="list-style-type: none"> <input type="checkbox"/> Soil injection of slurry/sludges <input type="checkbox"/> Wash residual manure from spreader after use <input type="checkbox"/> Proven biological additives or oxidants 	

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Uncovered manure, slurry, or sludge on field surfaces	<ul style="list-style-type: none"> • Volatile gas emissions while drying 	<ul style="list-style-type: none"> <input type="checkbox"/> Soil injection of slurry/sludges <input type="checkbox"/> Soil incorporation within 48 hours <input type="checkbox"/> Spread in thin uniform layers for rapid drying <input type="checkbox"/> Proven biological additives or oxidants 	
Flush tanks	<ul style="list-style-type: none"> • Agitation of recycled lagoon liquid while tanks are filling 	<ul style="list-style-type: none"> <input type="checkbox"/> Flush tank covers <input type="checkbox"/> Extend fill lines to near bottom of tanks with anti-siphon vents 	
Outside drain collection or junction boxes	<ul style="list-style-type: none"> • Agitation during wastewater conveyance 	<ul style="list-style-type: none"> <input type="checkbox"/> Box covers 	
Lift stations	<ul style="list-style-type: none"> • Agitation during sump tank filling and drawdown 	<ul style="list-style-type: none"> <input type="checkbox"/> Sump tank covers 	
End of drainpipes at lagoon	<ul style="list-style-type: none"> • Agitation during wastewater conveyance 	<ul style="list-style-type: none"> <input type="checkbox"/> Extend discharge point of pipes underneath lagoon liquid level 	
Lagoon surfaces	<ul style="list-style-type: none"> • Volatile gas emission • Biological mixing • Agitation 	<ul style="list-style-type: none"> <input type="checkbox"/> Proper lagoon liquid capacity <input type="checkbox"/> Correct lagoon startup procedures <input type="checkbox"/> Minimum surface area-to-volume ratio <input type="checkbox"/> Minimum agitation when pumping <input type="checkbox"/> Mechanical aeration <input type="checkbox"/> Proven biological additives 	
Irrigation sprinkler nozzles	<ul style="list-style-type: none"> • High pressure agitation • Wind drift 	<ul style="list-style-type: none"> <input type="checkbox"/> Irrigate on dry days with little or no wind <input type="checkbox"/> Minimum recommended operating procedure <input type="checkbox"/> Pump intake near lagoon liquid surface <input type="checkbox"/> Pump from second-stage lagoon <input type="checkbox"/> Flush residual manure from pipes at end of slurry/sludge pumpings 	

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Dead animals	<ul style="list-style-type: none"> • Carcass decomposition 	<input type="checkbox"/> Proper disposition of carcasses	
Standing water around facilities	<ul style="list-style-type: none"> • Improper drainage • Microbial decomposition of organic matter 	<input type="checkbox"/> Grade and landscape such that water drains away from facilities	
Mud tracked onto public roads from farm access	<ul style="list-style-type: none"> • Poorly maintained access roads 	<input type="checkbox"/> Farm access road maintenance	

Additional Information:

Cattle Manure Management; .0200 Rule/BMP Packet
 Dairy Educational Unit Manure Management System—Lake Wheeler Road Field Laboratory; EBAE 209-95
 Lagoon Design and Management for Livestock Manure Treatment and Storage; EBAE 103-83
 Management of Dairy Wastewater; EBAE 106-83
 Calibration of Manure and Wastewater Application Equipment; EBAE Fact Sheet
 Nuisance Concerns in Animal Manure Management: Odors and Flies; PRO107, 1995 Conference Proceedings

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