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EMS Environmental Management System

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Holsum Dairies, LLC Environmental Policy

Holsum Dairies, LLC with our employees are committed to protecting and improving our natural environment.

We commit ourselves to...

- Assure all facilities, operations, and management decisions comply with current DNR and county regulations.
- Constantly review operating procedures, practices, and decisions on the dairy to protect and improve the quality of water, air, land, wildlife, and life for the community
- Conserve natural resources by reducing consumption, reusing, recycling, increasing efficiency, and/or producing renewable resources.
- Research and develop systems that have measurable improvements and/or protection for the environment, verify the system when possible, and look for opportunities to improve.
- Identify potential emergency contamination situations, establish systems to reduce the likelihood of them happening and develop systems to respond to emergencies.
- Share this policy with our contractors and community to encourage everyone to make a commitment to being environmentally responsible.

Issue 1 ---Surface Water; Farmstead

Issue 2 ---Surface Water; Cropland

Issue 3 ---Groundwater; Reduce usage

Issue 4 ---Groundwater; Contamination prevention

Issue 5 ---Air Quality

Issue 6 ---Wildlife; plant and animal

Issue 7 ---Traffic

Issue 8 Waste Management; Reduced usage, production, and increased recycling

Issue 9 Energy; Reduced usage and renewable resources

- Water retention basins, waterways, culverts, prairie grasses to reduce runoff from dairy site
- Clean water diversions.
- Established wetlands to filter runoff to west
- Construction of wet sediment basin to east (2004)
- Working with township for diversion of all ditch water to wet sediment basin (2004)
- Feed storage leachate collection system.
- Milk room waste diverted to nutrient storage lagoons.
- Waste oil collection, storage, and disposal
- Staff present at all times when refueling
- Weekly site inspection and reporting (2004).
- Manure tanker filling area 900 ft from roads to reduce tracking on public roads.
- Remodeled manure tanker filling area to minimize manure tracking (2004).
- Remodel wet brewer's grain storage for clean water diversion (2004).
- Stone fence and stoned waterways (75% complete 2004).
- Annual site visit by DNR personnel to review site and nutrient management plan.
- Grass waterways in place, additional grass waterways started (2003 & 2004).
- Increased acres in hay and wheat by more than 1,000 acres.
- Comprehensive nutrient management plan.
- Manure incorporated within 2hrs (>95% of time) to reduce runoff and nitrogen loss
- No excess phosphorus added to ration.
- Weekly milk urea nitrogen test to manage feed protein content to minimize manure nitrogen.
- Nutrient application based on P & N.
- Soil test (5 acre spacing) every 4-5 years to verify nutrient management plans are effective and to avoid excess nutrient buildup.
- Manure application to growing crops (approx. 12 million gal/year).
- Contractor monitors manure pump and drag hose to detect and stop any leaks.
- 14 months manure storage capacity; no application necessary on frozen ground.
- Barn and digester design result in no frozen manure application during winter.
- Contractor on call (2 miles) w/truck mounted brush, water tank, pressure washer, and scrapper for cleanup (2003).
- Emergency manure spill response plan developed and communicated to response members (2004)
- Utilize water that is delivered to cows to first cool milk and cool compressors.
- Direct ship tanks reduce chemical and water usage related to washing and sanitizing additional storage tanks.
- Water use monitored: Water usage is appr. 33 gal/cow/day in winter, 43 gal/cow/day in summer, considerably less than the expected 45-50 gal/cow/day
- Thermostat and timer controls on water sprinklers and fans minimize the amount of water used to cool cows during summer
- Weekly and daily water leak inspection.
- Manure storage >300' from wells.
- Wells built with casing into bedrock, cased 18" above ground, surface ground sloped away from well casing.
- Reverse flow valve in place and tested annually to prevent backflow.
- The dairy sited on a location with 80 ft of clay and ground water level is 40 ft from the surface.
- No manure is applied within 100 ft of wells.
- Concrete manure storage structures built to DNR 213 standards and are in 60-80 ft of clay to further protect ground water.
- Environmental Assessment Report for 2 mile radius of dairy conducted with copy supplied to township
- Manure digester with generator/engine:
 - ⇒ Reduced odor 90-97%
 - ⇒ 95% pathogen reduction
 - ⇒ Destroys weed seed to help reduce need for herbicides
 - ⇒ EPA's option #1 to reduce flies
 - ⇒ Reduced green house gases; reduced methane emissions
 - ⇒ Reduces need for natural gas production and transmission
 - ⇒ Renewable electricity provides 500 Kilowatts of electricity. Second generator (2004) provides additional 200 Kilowatts and reduces propane used for infloor heat.
- Built dairy roads 150' from road
- Planted prairie grasses, flowers, and trees to dissipate odors

- Nutrient storage lagoons >750 ft from roads
 - Scrape freestalls 3x/day and feed lanes every other day to minimize odor and reduce fly habitat.
 - Apply water to roadways to reduce dust.
 - Use ground asphalt on road surfaces to reduce dust (2004).
 - Additional 400 trees planted in nursery for planting in spring of 2005
 - Prairie grass, flower, and scrubs for ground cover to provide feed.
 - Additional feed placed in neighbor's field during the winter for pheasant and other wildlife (2004).
 - Bluebird boxes installed and maintained (2004).
 - West wetlands and east wet sediment basin provides habitat.
 - Working with the USDA Fish and Wildlife Service to control non-native English Starling population.
 - Installed stop signs at dairy exits.
 - Township installed "truck entrance" signs.
 - Entrances modified (2004) with on/off lanes, increased width, and concrete to improve safety and eliminate T-intersection, clear lines of vision in both directions at entrances and exits.
 - Separate road between buildings minimizes traffic entering and leaving.
 - Equipment on public roads have brake and directional signals, slow moving vehicle signs and flashing lights.
 - All haulers required to have proper exhaust and muffler systems.
 - Jake brake use limited to day time hours and where neighbors request not to be used.
 - Stop hauling manure and forage to and from fields to minimize mud on roads when raining.
 - Contractor has equipment to clean dirt and mud off roads, when needed.
 - Application of 50% of nutrients by hose reduces road traffic.
 - Use of road safety cones and warning signs at field locations where trucks are entering and leaving highway.
 - Use of separated solids for bedding reduced 2 semi-loads of bedding from Missouri each week.
 - Medical waste collected and processed by licensed waste management service.
 - Waste containers located for collection and proper disposal of waste.
 - Foam packing material recycled back to shippers whenever possible
 - Totes and 55 gallon barrels used and returned to manufacturers for reuse rather than 1, 5, and 15 gallon containers that cannot be reused or recycled (2004).
 - Large, forage storage piles reduces the amount of plastic used.
 - Reusing plastic sheets when possible
 - No plastic is burned.
 - Weekly chemical use inspections ensure no chemicals are over-used.
 - Cloth towels reused, saves 9,200 paper towels everyday.
 - Plastics, cardboard, aluminum, and iron are recycled.
 - Waste byproducts from human food and fiber product are utilized as feed products.
 - Heat from generators used to heat floors in workshop, parlor, offices, holding area, treatment area, and cow transfer lanes. Reducing propane use.
 - Heat captured from cooling milk and compressors is used to preheat water prior to the water heater.
 - Local utility is able to turn on dairy backup generator and disconnect dairy from power grid during excessive peak electric demands or if they experience a failure.
 - Manure application with hose reduces the diesel fuel use.
 - Organic cow manure reduces need to use natural gas to produce commercial nitrogen fertilizer.
 - Utilize 4 million gallons/yr of high BOD liquid that the city of Chilton is unable process. Used to produce electricity and nutrients applied for crop production.
 - Other methods used to conserve energy:
 - ⇒ Variable speed water and milk pumps
 - ⇒ Low pressure water system
 - ⇒ Variable speed vacuum pumps
 - ⇒ Groundwater used to cool milk from 100 F to 60 F prior to electrical compressor cooling.
 - ⇒ Energy efficient light bulbs
 - ⇒ Timers and thermostats use minimize use of electricity for fans, lights, and pumps
 - ⇒ Timers used to shift electrical use to periods of off-peak demand
 - > Energy efficient air compressor system and cooling compressors
- Environmental concern questionnaire provided to visitors, employees, neighbors, vendors and others; used to alert us to other environmental issues.**