

FUGITIVE DUST CONTROL PLAN

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Submitted to:

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VIKING ENERGY OF LINCOLN (VEL)

GENERAL FUGITIVE DUST CONTROL PLAN

VEL has taken the following actions at the site to control fugitive emissions from its fuel and ash handling equipment:

- 1) Installed a dust control tarp at the outboard end of the fuel receiving hopper in the fuel receiving yard.
- 2) Installed a dust control discharge chute on the radial stackout conveyor in the fuel receiving yard.
- 3) Installed a dust cover on top of the rotary disc screen in the fuel receiving yard.
- 4) Totally enclosed the conveyor system that transports fuel from the Hog building to the plant.
- 5) Constructed an enclosed ash storage building.

Additionally, VEL has established a “greenbelt” on the two sides of the site property that border residential units. Greenbelt development has included the following activities:

- 1) Planting of 1000 Red Pine and 1000 Norway Spruce seedlings in the spring of 1990
- 2) Planting of 400 Red Pine and 200 Lombard Poplar seedlings in the fall of 1995
- 3) Planting of 1000 Red Pine seedlings in the fall of 1996
- 4) Planting of 1000 Jack Pine seedlings in the spring of 1997
- 5) VEL has planted 50 Spruce trees (around 2 ft. tall) in green belt in the summer of 2009 and 2010
- 6) VEL allows the grass to grow in the green belt to help control fugitive emissions.

VEL performs the following maintenance activities at the site to control fugitive emissions

- 1) Daily inspections of all wood receiving and handling equipment are conducted to make certain that fugitive emission control devices are in good condition and functioning correctly. Records of inspections and corrective measures are stored electronically at the site.
- 2) Streets and parking lots are washed down monthly from May through September to control fugitive emissions from vehicular traffic. Additional washing is done during dry periods if necessary to control dust.
- 3) Fly ash loading and unloading activities occur inside the enclosed ash storage facility whenever possible. If loading outside occurs, water will be added to the ash as necessary to control fugitive emissions. Outside loading will occur only when ambient wind conditions do not increase fugitive air emissions.
- 4) Water misting of the fuel pile will occur when visual observation indicates potential fugitive emissions problems.
- 5) VEL provides regular staff training in recognition of excessive fugitive emissions and the proper corrective actions to be taken.

Operationally, VEL insures that the stack-out conveyor is placed directly above and in close proximity to the receiving pile when in operation to restrict fugitive emissions. Typically, the stack-out conveyor flexible discharge chute rests on the receiving pile when the conveyor is in operation.

Specific Plan for Alternative Fuels: Since VEL process alternative fuels through the fuel yard using the same basic handling procedures as untreated wood, limited additional fugitive control measures are needed. All maintenance, operation, and training activities used to control emissions from the plant will be applied to the alternative fuel storage and handling as required.

Specific Plan for processing Round Wood and Rail Road Ties: VEL will grind when ambient wind conditions do not increase air emissions. All maintenance, operation, and training activities used to control emissions for the plant will be applied to the processing of round wood and rail road ties as required.

ADDITIONAL CONSIDERATIONS

Additional actions taken at the VEL site to help control fugitive emissions:

- A TDF receiving and storage area has been constructed complete with concrete apron and two masonry sidewalls. The storage area helps contain the TDF along with fugitive dust emissions by providing protection from the wind.
- A TDF feed hopper and conveyor system has been constructed which helps control fugitives by allowing filling of the hopper when wind conditions are favorable. The storage hopper has a maximum of 12 hours of capacity.
- All boiler bottom ash is totally submerged in water before entering the ash conveying system, which is a wet-bottom type.
- A duplex mixer with fly ash surge tank has been installed as the primary ash wetting system, which maximizes the wetting process and minimizes fugitive dust from the ash handling system. The duplex mixer operates for a four-minute period every 45 minutes.
- Entry doors have been added to the fly ash conditioning bay to control fugitive dust from the ash trailer filling process. The doors are kept closed during all periods of ash conditioning and loading of the ash trailers.
- Bituminous asphalt has been added in the area of the ash bay, ash conveyors, and ash barn to allow the water washing of this area for dust control.
- The equipment operator on shift inspects the ash handling system and wood handling system every day for dust leaks. Training is provided to all equipment operators to help identify and located fugitive dust problems.
- A collection pond has been construction for collection of fugitive dust washed from the parking lot and streets.

Wood-yard Procedures

Daily Actions – Early Shift Wood-yard

- Ensure that all conveyor dust chutes are properly in place and are not damaged.
 1. Stacker Conveyor Inlet Chute
 2. Stacker Conveyor Outlet Chute – Rubber flaps (Ensure that they hang properly and are not torn).
- Ensure that all equipment covers are in place and functioning as designed.
 1. Truck Dump Hopper Exit Hopper Cover
 2. Primary Classifier Cover
 3. Discharge Inspection Cover off the Take-away Conveyor
 4. Stacker Conveyor Belt Covers

Daily Actions – Throughout Day (Wood-yard)

- Monitor wind direction and speed - Call control room if necessary for readings.
- When dumping truck with higher concentration of dust on it, – keep Stacker discharge chute rubber flaps in contact with Wood-yard Storage Pile.

Monthly Actions – Throughout the Day (Wood-yard)

- Using the Fire System – Hose off the Wood-yard Roadways and Truck Dumper Approach (May-September).
- Maintain Wood-yard Grounds to avoid accumulations of dust – keep neat and orderly.
- Clean off Wood-yard Equipment to avoid unwanted accumulations of dust.

Ash Loading -

- Make sure ash truck is fully backed into the Ash Barn.
- Use Rollover Bucket on Loader to minimize the ash height dropping into the truck.
- Ensure Ash Truck is properly tarped before leaving Ash Barn.