Figure 001-4

Operation & Maintenance Plan

This Operation and Maintenance Plan must be kept on site for operator referral and must be updated on a regular basis, and when facility operations change.

Monitoring Guidelines

All filter and emission control equipment will be operated and maintained according to the manufacturer's recommendations and specifications.

The following shall be kept at the project site:

- A copy of operator's inspection and maintenance forms
- List of vendor contacts and suppliers for the air pollution control equipment,
- List of spare parts required on site by manufacturer.
- List of automated indicators or alarms that may aid the operator in determining malfunctions
- An adequate inventory of spare parts s
- Equipment used for inspection of emission control devices such as:
    - Pilot Lights - show motors operating, compartments on- or off-line, row of bags being pulsed
    - Opacity monitors - To measure continuous opacity of stack
    - Manometer or magnehelic - determine pressure drop a various points in the gauges baghouse.
    - Temperature indicators - determine temperature at critical points in baghouse
    - Gas flow meters - to measure actual gas flow rate through the baghouse
    - Vibrator indicators

General Monitoring Guidelines

Periodic monitoring is not required during periods of time greater than one day in which the source does not operate. Operators shall maintain and operate the facility and associated air pollution control equipment consistent with good air pollution control practice for minimizing emissions, to the extent practicable The site operator must maintain written records of all observations and any resulting actions. If abnormal conditions are observed, immediate action will be taken to minimize emissions through implementation of best management practices. Immediate action will be taken to return the equipment to normal operating conditions, through repair or replacement of parts. Records will be maintained on-site for 5 years. The following monitoring activities must be completed on daily, weekly and mothly basis.

Daily monitoring activities:

- Check pressure drop of each compartment
- Check pressure at baghouse inlet/outlet
- Check temperature at baghouse inlet
- Check dust levels in hoppers
- Visual inspection for adequate dust removal from hoppers
- Visual inspection of stack emissions,
- Check of compressed air supply for pulse-jet baghouses
- Inspection of proper isolation damper operation
- Monitoring of bag cleaning cycle
- Maintain wetted roads and stockpiles with sufficient moisture to limit generation of fugitive dust

Weekly monitoring activities:

- Check all moving parts on the discharge system; screw-conveyor bearings
- Check damper operation; bypass, isolation, etc.
- Inspect fan bearings for proper oil level and temperature, excess vibration.
- Check drive components, fan belts for proper tension, wear.
- Thoroughly inspect stack for holes, crack, leaks, repair as necessary
- Spot check bag tensioning; reverse air and shake bags.
- Check compressed air lines including oilers and filters.
- Blow out manometer lines.
- Maintain oil lube system
- Verify temperature-indicating equipment.
- Check bag-cleaning sequence to see that all valves are seating properly.
- Inspection of bag cleaning mechanisms,

- Check of bag tension on shake or reverse-air units,
- Check differential pressure, verify that it is within acceptable range
- Check visible emissions

Monthly Monitoring Activities:

- Spot check bag-seating condition.
- Check all moving parts on shaker baghouses.
- Check fan for corrosion and blade wear.
- Check all hoses and clamps.
- Spot check for bag leaks and holes.
- Inspect baghouse housing for corrosion.
- Check baghouse air delivery system
- Check hopper functions and performance
- Check baghouse cleaning sequence
- Inspect for internal air leaks
- Inspect bag condition and connections
- Clean, Repair/replace bags per manufacturer
- Inspect fan condition and operation

Quarterly Monitoring Activities:

- Thoroughly inspect bags.
- Check duct for dust buildup.
- Observe damper valves for proper seating.
- Check gaskets on all doors.
- Inspect paint on baghouse.
- Calibrate opacity monitor.
- Set dryer excess air and damper settings
- Inspect dryer/burner and ensure it is operating properly
- Inspect baffle plate for wear
- Inspect all components that are subject to wear or plugging
- Thoroughly inspect damper blades for wear, replace if necessary.
- Inspect automatic damper drives, bearings, repair or replace as necessary.
- Thoroughly inspect all ductwork joints and seals for tightness and check tightness
- of flange bolts, repair as necessary.

Semiannual Monitoring Activities

- Inspect structural components, housing, ducts and hoods
- Check all welds and bolts.
- Check hopper for wear.
- Replace high-wear parts on cleaning system.

Annual Monitoring Activities

- Calibrate mercury pressure switch and maintain a written record of the calibration
- Inspect all components that are not subject to wear or plugging, including
- structural components, housing, ducts and hoods.