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August 23, 2010

Permit No.	Date	DIN
6009	**August 27, 2010**	**11475**

RECEIVED
August 26, 2010
Solid Waste Section
Asheville Regional Office

Mr. Larry Frost
Regional Engineer
NCDENR
Division of Waste Management Solid Waste Section
Ashville Regional Office
2090 U.S. Highway 70
Swannanoa, NC 28778

APPROVED DOCUMENT
Division of Waste Management
Solid Waste Section
Date **October 8, 2010** By **LY Frost**

Subject: Amendment, Permit to Operate, 5 Year renewal-Request for Additional information
BMWNC, Inc. Medical Waste Incinerator, Permit No. 60-09-I
Mecklenburg County, DIN 10276

Dear Mr. Frost,

I have attached for your review and records, the revisions you requested to the Operation Plan. I have updated the contact information, added an explanation of the facility's ash handling, including storage and disposal as well as updated information regarding sorbent calibration.
Also, per your request, I have deleted forms no longer in use and have updated those still currently used.

In addition to the revisions mentioned above, I am requesting that you include APHIS waste on the permit as a waste that can be treated at the Matthews facility. Included with this submittal is an executed Compliance Agreement between the USDA/APHIS/PPQ and BMWNC, Inc.

If there is any further information you require, please call me at 513-475-3032.

Sincerely,

Donald J. Nuss, Jr.
Director of Environmental Health & Safety
Healthcare Waste Solutions, Inc

BMWNC, Inc

Operating Plan 2010

TABLE OF CONTENTS

Objective 4

Types of Operations at BMWNC: 4

Receiving 4

Charging 4

Cart Washing 5

Logging and record keeping 6

General operations of the incinerator controls 6

Ash movement inside the incinerator, including avoiding stuffing 9

Bottom ash examination and operating adjustments 10

Sorbent Calibration and Ash Sampling 11

Baghouse monitoring 12

Quench chamber monitoring 12

Maintaining zero water discharge 13

Compliance monitoring 13

Emergency Response Plan 18

Emergency Numbers 18

Purpose and Objectives 18

General Guidelines 19

Responsibilities of Shift Supervisors 20

Alerting or Signaling Building Occupants in Case of Fire or Other Emergency 20

Evacuation Procedures for Building Occupants 21

Notes and Precautions 21

Fire 21

Disabled Occupants....22
Critical Operations Shutdown....22
Accountability Procedures for Emergency Evacuation....22
Rescue and Medical Duties....23
Resource and Responsibilities Lists....23
Training and Communications....23
Emergency Evacuation Plan Responsibilities List BMWNC....24
Personnel Assigned To Critical Operations Responsibilities....24
Critical Operation....24
Shift Supervisor....24
Shift Employees....25
Housekeeping....25
Conclusions....25
Sorbent Procedures....25
Sorbent Rate Verification Records....25
Sorbent Data Logger Records....26
Sorbent Daily Log Sheet....27
Pressure Data Logger Records....27

OBJECTIVE

The objective of this operating plan is four-fold. First, it is to insure a basic understanding of the process so that there can be a uniformity of operating approach for each shift. It is also to emphasize the importance of environmental and regulatory compliance, and to put forth methods to achieve this compliance almost automatically. The operating plan also insures both personnel and process safety, as well as optimized performance of the equipment on hand.

TYPES OF OPERATIONS AT BMWNC:

RECEIVING

Medical waste must be unloaded to the operating floor only, and within seven days of trailer receipt. There are no exceptions to this rule.

All boxes and carts are to be individually weighed and logged into the manifest system. Manifests are to be signed twice by the Shift Supervisor.

The number of carts and load bars removed from each trailer are to be logged, and when the bars and clean carts are reloaded back onto each trailer, the carts and load bars are to be recounted and the numbers matched against the logged record.

CHARGING

The BMWNC incinerator system is designed for a particular thermal input rate. The thermal input comes from the waste. Under ideal conditions, the incinerator operates under conditions of a constant thermal input. The thermal release from the "fuel" (the waste in the chamber) is controlled by the charging rate and by controlling the available combustion air. The charging process, thermal input, and combustion approaches a steady state condition as the waste homogeneity increases, the charge loads decrease in size, and the frequency of charges increase. Therefore, a charging scenario of more frequent charges of smaller volume is more desirable than one of a single large charge.

Regardless of production demands, we must plan to consistently meet permit requirements. The primary responsibilities for proper charging operation rest with the operators who must charge the solid waste fuel unit with the loading table. The loader intervals are set at 152 pounds every five minutes so as to achieve maximum energy release and materials processing at the regulated rate of 1834 pounds per hour (pph) MAXIMUM. Under normal circumstances, the interval is sufficient for charging the loading table and performing other tipping floor activities such as mixing and queuing the waste material in reusable carts. The proper charging of the correct amount of material at the required time is very important in assuring steady state conditions within the incinerators. This will assure maximum energy release and proper ash quality. All loader operators should understand their

responsibilities in the optimum operation of the facility and their activities should be reviewed frequently by Shift Supervisors.

To homogenize a mixture of low and high heating value waste an effort should be made to charge materials which, through operating floor management, have been mixed as much as possible. For example, a load of wet or inert material, like Stericycle's Bayer filters, and a load of particularly "hot" material should be mixed with other on-hand material so as to buffer their effects as much as possible.

Besides insuring a regular, homogeneous waste supply to the incinerator that does not exceed the regulatory limit, it is also extremely important to control primary chamber temperature and other process variables by means of the charging rate. For instance,

- Secondary chamber temperature high - stop charging
- Secondary chamber temperature low - charge
- Primary chamber temperature high – charge up to limit. If still high, spray the waste in the charging breech
- Primary chamber temperature low - stop charging
- Smoke emissions when charging - reduce charge size, increase frequency
- Smoke emissions when charging - mix charged material to reduce BTU value
- Poor ash quality - reduce charge rate

For each customer load, each container in that load must be weighed and that weight recorded in the Supervisors' office. Those weight values must be attached to the appropriate manifests and these forwarded for use and ultimate filing in the administration building.

After weighing each container, the containers' weight must be written on each container and the container loaded onto the feed conveyor belt or to the reusable cart dumper. For each reusable cart and container, the control panel operator must enter the weight written on the container into the data acquisition system where the hourly average feed rate to the incinerator is monitored by the control panel operator, the Shift Supervisor, and the Plant Manager. Thus, the data acquisition system is the effective log for all charging of the incinerator, showing times and weights charged down to the minute.

CART WASHING

The wash rack is to be utilized only after its temperature has reached 150°F. After washing, all carts are to be inspected by the person operating the washrack to insure that there is nothing at all inside any cart, and that all the carts are clean and smell disinfected. When levels of additives (detergents

and disinfectants) seem questionable, the operator is to ask Maintenance to add the proper amount of additive to the washrack sump.

See Fresh Water Flow Diagram on Page 15. This shows where the cart wash water fits into the overall plant water balance.

Wash rack maintenance and preventative maintenance activities, including any instrument calibrations, must be entered into the Operators' Logbook in the Shift Supervisors' office.

The number of carts washed is logged by use of the scale sheet. The scale sheet shows "carts" versus "containers". The scale sheet is attached to the manifest for each load and each customer, and forwarded to the administration office where the carts are tallied and recorded simply by counting the cart weight entries. In this way, the carts washed are effectively logged by administration.

LOGGING AND RECORD KEEPING

Along with the requirements for ash sampling and sorbent screw calibration with appropriate log book entries, many other records are to be kept. These include:

- Logging all customer and trailer numbers
- Maintaining the data acquisition system and notifying the Plant Manager when it malfunctions
- Logging reasons for all stack damper openings
- Logging reasons and person responsible when an over-charge occurs
- Logging reasons and actions taken for all unscheduled maintenance activities
- Logging special or unanticipated events, such as fugitive emissions, visits by non employees and medical concerns

GENERAL OPERATIONS OF THE INCINERATOR CONTROLS

The control panel operator, who also has responsibility for charging, must constantly monitor incinerator chamber temperatures and learn to recognize abnormalities. Some of these abnormalities and corresponding actions required follow.

- Secondary chamber temperatures above 2300°F - stop charging
- Secondary chamber temperatures below 1800°F - stop charging
- Lower chamber temperatures above 1800°F - check draft setting and spray
- Adjust charging rates to control temperature

The control panel operator must also constantly monitor stack gas opacity, which should never exceed 10 percent averaged over six minutes, and stack carbon monoxide (CO), which should never exceed 40 ppm except during brief periods of ash ram movement. Certain actions may be taken by the operator to alleviate opacity or CO problems, such as follows.

- Opacity and/or CO high soon after charging - check secondary combustion air and adjust charge rate
- Opacity and/or CO high immediately after charging - check lower chamber temperatures and BTU value of waste
- Random high opacity and/or CO - check for tumbling of waste bed
- Opacity and/or CO increasing after several hours of operation - check and increase under fire air and burn rate
- Inspect the chambers through view ports and recognize temperature by color - look for problem temperatures. Bright yellow is above 1900°F. Dull red is around 1400°F.
- Ash bed too deep - waste ash smothered - check draft control and air infiltration, increase underfire air, reduce charge rate, adjust ash ram strokes
- Visible smoke in the upper chamber – increase secondary combustion air flow
- Spot problem waste

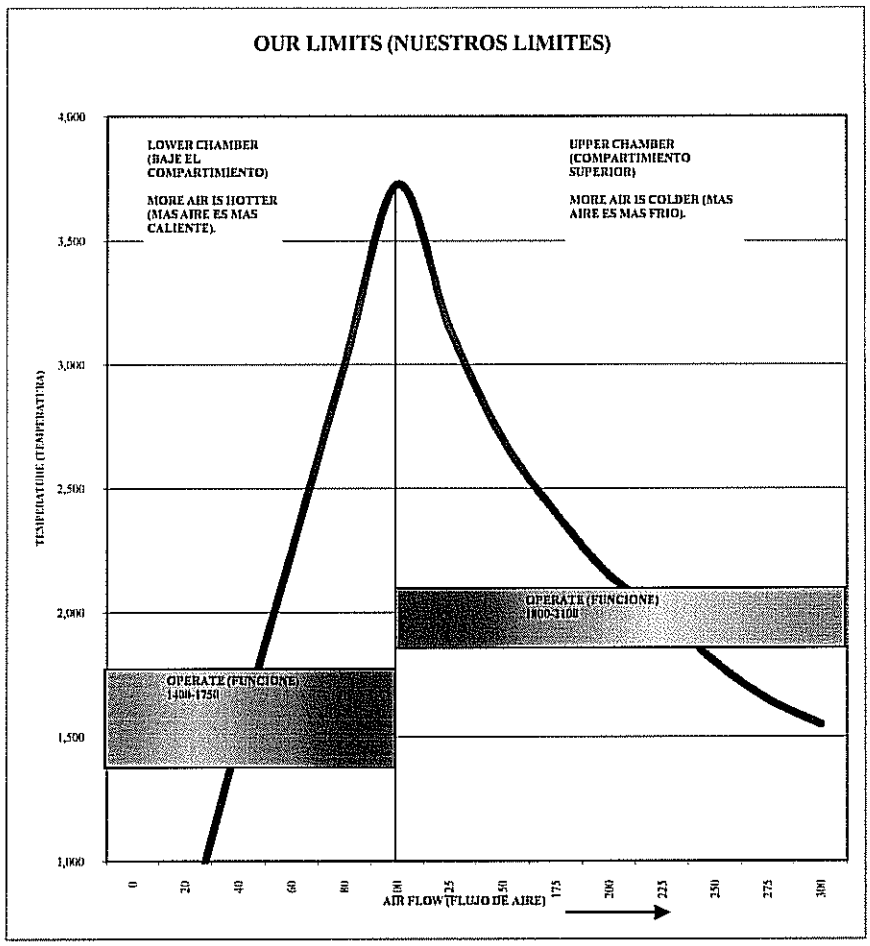
The control panel operator must understand that maintaining the desired operating temperatures within each combustion chamber is critical to proper operation of the BMWNC incinerator. Both upper and lower limits on the temperature range for each chamber are of interest. The desired range of operation is different for the ignition (primary) and combustion (secondary) chambers because the functions of these chambers differ.

The operating ranges for the primary chamber (ignition chamber) range from 1200°F to 1800°F. The lower limit is dictated by BMWNC's permit and is not the actual limit used in the plant as will be discussed subsequently. The ignition chamber must be maintained at a minimum temperature sufficient to sustain combustion, combust the fixed carbon in the ash bed, and kill any microorganisms in the waste bed so that the remaining ash is sterile. The temperature also must be maintained below a level that will damage the refractory and result in slagging of the waste.

The destruction of the microorganisms including pathogens within the incinerator depends on the temperature and time of exposure. These parameters are affected by many factors, including charging beyond incinerator capacity which reduces retention time. Most literature recommends a

minimum primary chamber temperature of 1400°F, which is exactly BMWNC's minimum desired operating range (though higher than the regulated minimum of 1200°F) as shown in the graph below.

From an operational (operating efficiency) standpoint, it is desirable to operate the primary or ignition chamber at a temperature high enough to sustain combustion in the chamber and to generate sufficient volatile combustion gases and heat to maintain the desired secondary combustion temperature without the use of auxiliary fuel. Consequently, the desired primary chamber temperature will depend somewhat on the waste composition. Furthermore, a sufficiently high temperature to effectively combust the fixed carbon in the waste bed is desired. BMWNC's experience indicates that this temperature is in the 1400° to 1750°F range.



As already stated, operators are to use water quenching in the primary chamber to maintain gas temperatures below 1800°F, which is approximately the highest temperature where good quality, ignitable gas can be produced, and to avoid refractory damage. The BMWNC incinerator uses refractory rated at 2800°, but reactions can occur with contaminants in the combustion gas causing

the ash to melt and flux the refractory, making it desirable to expose this refractory to no higher than 2200°F on a continual basis.

Another, perhaps more important, limiting factor for the upper operating temperature of the primary chamber is slagging of the waste. Most ash residues begin to become soft at temperatures in the range of 2200° to 2500°F. While thermocouples in the primary chamber indicate the temperature of the combustion gas exiting the primary chamber, the temperature in the ash bed at the hearth adjacent to the under fire air ports can be consistently higher. Consequently, although the combustion gas temperature can indicate that clinker (fused slag) formation should not be a problem, the ash bed can be hot enough to form clinkers. Experience has shown that a control temperature of 1800°F can be used in most cases with acceptable performance with regard to clinker formation and carbon burnout, but the performance problems due to slagging may begin to occur at primary chamber temperatures as low as 1400°F.

The secondary chamber serves to complete the combustion process initiated in the primary chamber. As with the primary chamber, it is desirable to operate within a lower and upper range. At temperatures that are too low, complete combustion may not occur. At temperatures that are too high, refractory damage may occur, and residence time may be decreased.

A minimum temperature is needed to prevent the discharge of potentially toxic products of incomplete combustion. The threshold temperature found in laboratories dioxins and furans is1700°F though BMWNC's regulated minimum is 1800°F.

Sufficient temperature in the secondary chamber is necessary to kill microorganisms entrained in the gas stream from the primary chamber. Most literature suggests a minimum secondary combustion chamber temperature of 1800°F. The limiting factor for the secondary combustion chamber temperature upper operating range is refractory damage. The upper limit is dictated by the refractory, at 2200°F on a continual basis.

A typical draft for controlled-air incinerators is in the range of -0.05 to -0.1 in. water column (w.c.). Excessive draft is not desirable because increased carryover of particulate matter to the secondary chamber can occur, and the higher the draft the higher the amount of tramp air that will enter the incinerator. Tramp air does little to promote combustion within the fuel bed. In fact, the more tramp air that is admitted, the less underfire air that can be used without overheating the primary chamber. With decreased underfire air, combustion within the fuel bed deteriorates, causing more unburned combustibles in the ash residue.

ASH MOVEMENT INSIDE THE INCINERATOR, INCLUDING AVOIDING STUFFING

The operator is to insure that ash moves regularly inside the incinerator. Small ram strokes are more effective than long strokes for carbon burnup. The sequence of events in moving the rams depends

upon the quality of the waste, but in general, starts with moving the third ram (the ash ram) first about one foot forward to make space for the waste moved by the second ram, which is moved second. The second ram is also moved about one foot. Then the first ram is moved about one foot. This cycle is repeated every 15 minutes.

Every hour the Supervisor is to view the ash on the ash burnout grate, an area that is moved by the third ram, checking for scorched or partially burned combustibles. If any unburned waste is seen, the Supervisor will manually stir the ash bed until burnup is achieved.

BOTTOM ASH EXAMINATION AND OPERATING ADJUSTMENTS

The Shift Supervisor is to regularly inspect the bottom ash at the ash discharge hopper and at the ash dumpsters. Unburned or scorched combustibles are to be removed from the hopper or dumpster, and deposited into a medical waste reusable cart. The cart is weighed and the partially burnt waste is re-burned.

- In order to avoid the problem of partially combusted ash residue, there are several courses of action that should be investigated.
- Insure that the underfire air fan is operating and cleanout the underfire air ports
- Reduce charge rate, increase temperature, adjust ram strokes
- Increase the dwell time between charges by increasing the charge size to promote the disintegration of containers on the charging hearth.
- Increases underfire air
- Keep the automatic draft setpoint as low as possible without causing a positive condition, a draft of 0.1" w.c. is preferred.
- Excessive long strokes of the internal ram pushes containers, such as boxes, rapidly through the ash bed. The box insulates its contents until it is destroyed.
- Unit is charged too frequently preventing destruction of boxes on the charging (first drying) hearth.

High temperatures on top of the pile, if otherwise uncontrollable, can cause an operator to shut off the underfire air system to a minimum air flow position producing a cold pile and unburned combustibles in the ash. To preclude the necessity of stopping the underfire air, several actions should be taken.

- Investigate and control draft to reduce air infiltration as has been mentioned.
- Always maintain minimum underfire air flow in the air tubes, to keep the pile burning on the bottom. A minimum of +0.5" W.C. air pressure should be maintained in the air tubes during operation with waste on the tubes. Heat must filter upwards through the pile.
- Check charging door down, charge door seals, access door seals, ash discharge water seal for air infiltration.

- Avoid charging large loads of wet or low BTU materials in a single charge. Mix with other material to raise the Btu level and reduce the moisture content of the charge.
- Increase the frequency and length of the internal ram strokes to reduce the pile depth to allow the heat to penetrate.

Sorbent Calibration and Ash Sampling

BMWNC conducted various calibration exercises on both the lime and carbon feed system to determine the settings needed to be compliant with the permitted feed rate. BMWNC conducted calibration testing for the lime and carbon feed that is consistent with the calibration techniques recognized as an industry standard for the current system. The Lime feed calibration consists of taking at least a 1 minute sample of the lime as it is augured out of the lime feed/metering assembly. The sample is weighed and then multiplied by the time in seconds to calculate the rate of pounds per hour. The feed rate is determined by raising or lowering the auger speed in the lime feed/metering system. A digital display designates the setting.

The carbon feed calibration is similar to the lime feed however in this case, the setting of the feed rate is determined by using a dial setting. The calibration is conducted by taking a one minute sample and multiplying the weight by 60 seconds then dividing the sum by 16 to calculate the rate of pounds per hour.

As stated above, BMWNC conducted various calibration exercises to determine the feed rate settings needed to comply with our current permit parameters. Attached are all of the calibration exercises conducted at various settings along with voltage readings for each motor.

Based on these calibrations, BMWNC has determined that the lime feed setting is 999 to reach the desired amount of lime needed to comply with the permit parameters. Due to 999 being the highest setting possible on the lime feed system, the voltage range on the motor is between 89.1 and 89.4. Additionally, BMWNC installed a variable speed vibrator to facilitate the flow of lime from the silo to the lime feed/metering system. These calibrations included the vibrator with a setting of 80%. (See attachment of calibrations and graph)

After calibrations were performed on the carbon feed system, it was determined that the setting for carbon was 20 to comply with the permit parameters. The DC voltage of the motor was reading 19.4 at this setting. The vibrator for the carbon is not variable speed and is either on or off. For our calibration, the vibrator was in the on position. (See attachment for calibration documentation)

The fan blower reading was 5.3 volts.

BMWNC recommends that calibration of the sorbet feed system will be conducted one time a week. The protocol used will be the same as described in the above paragraph and consist of three different

samples. The data will be recorded and documented using the verification log which is attached. This data will be available in the verification log book in the maintenance area.

In an effort to reduce ash emissions, BMWNC has relocated the ash containers to the covered ash discharging area. Additionally new containers with canvas covers are now used in the storage of the ash until removed for disposal.

The ash is sampled biannually. This sample is sent to a laboratory for analysis of TCLP metals, pH and free liquids by Paint Filter Analysis. The sample results are forwarded to the County Solid Waste Services Officer upon return.

The ash is disposed at the Speedway Landfill in Concord, NC

BAGHOUSE MONITORING

The baghouse automatically pulse cleans itself according to the pressure drop across the bags. However, the operator must continuously observe the pressure drop, just as he does the chamber temperatures, to make sure that the cleaning cycle is effective. Sometimes manually pulsing the bags, in addition to the automatic cycle, are necessary to achieve the maximum design pressure drop of 10 inches w.c.

In addition, every hour the Supervisor must go back to the compressor room and check to see that the air pressure is holding steady at 100 psig. This is necessary in case one of the baghouse pulse solenoids "hangs up" in the open position, bleeding air from the system at a rate that cannot be made up by the air compressors. If such as situation is left unchecked, air pressure will decrease to a point where the stack damper will open, a situation that is to be avoided to the maximum extent possible.

If a situation of low air pressure arises, and all compressors are running, the Supervisor is to check the pressure gauge designated by the dotted arrow on Page 12, which is the Compressed Air Flow Diagram. If the gauge reads less than 40 psig, the Supervisor is to shutoff the ball valve at the air receiver on the baghouse second platform. The Supervisor is to wait until the pressure increases to 100 psig, then crack the ball valve slowly letting air in until the receiver is full. Then the Supervisor is to listen to the baghouse pulsers for a leak. Then fix the leak by tapping the solenoid valve. Finally, the Supervisor can fully open the ball valve at the receiver.

QUENCH CHAMBER MONITORING

See the Quench Water Flow Diagram on Page 13. It is very important that the Shift Supervisor and the control panel operator monitor the exit gas temperature from the quench tank, which should be steady at about 370°F. If the temperature grows steadily above that point, it means that a temperature excursion, which will cause the stack damper to open, is impending. All possible efforts

must be made to avoid this situation. If the quench exit temperature is rising, the first thing for the Supervisor to check is the water pressure drop across the water filters in the compressor room. If this pressure drop exceeds a few psi, the Supervisor needs to reroute the water flow through the parallel filter using the valving shown on the diagram, and clean the dirty filter.

If the filters are found to be clean, and quench exit temperature is still rising, the trash pump is most likely fouled. The Supervisor or maintenance personnel if on hand should then switch to the parallel backup trash pump. The fouled pump should then be cleaned and put back in place for service again when the backup pump becomes fouled.

If the quench temperature still continues to rise, the only remaining reason can be the quench water nozzles at the top of the quench tank. These need to be removed and replaced with spare nozzles.

MAINTAINING ZERO WATER DISCHARGE

No water is to be discharged from the plant onto the plant grounds, nor into the sanitary sewer system except the toilets used for personal use by employees. All waste water from various locations around the plant is routed to the pit (See Quench Water Flow Diagram on Page 11). All cleanup water from floor washing operations is to be squeegeed to the pit. All of the waste water in the pit is eventually used in the scrubbing system as quench water.

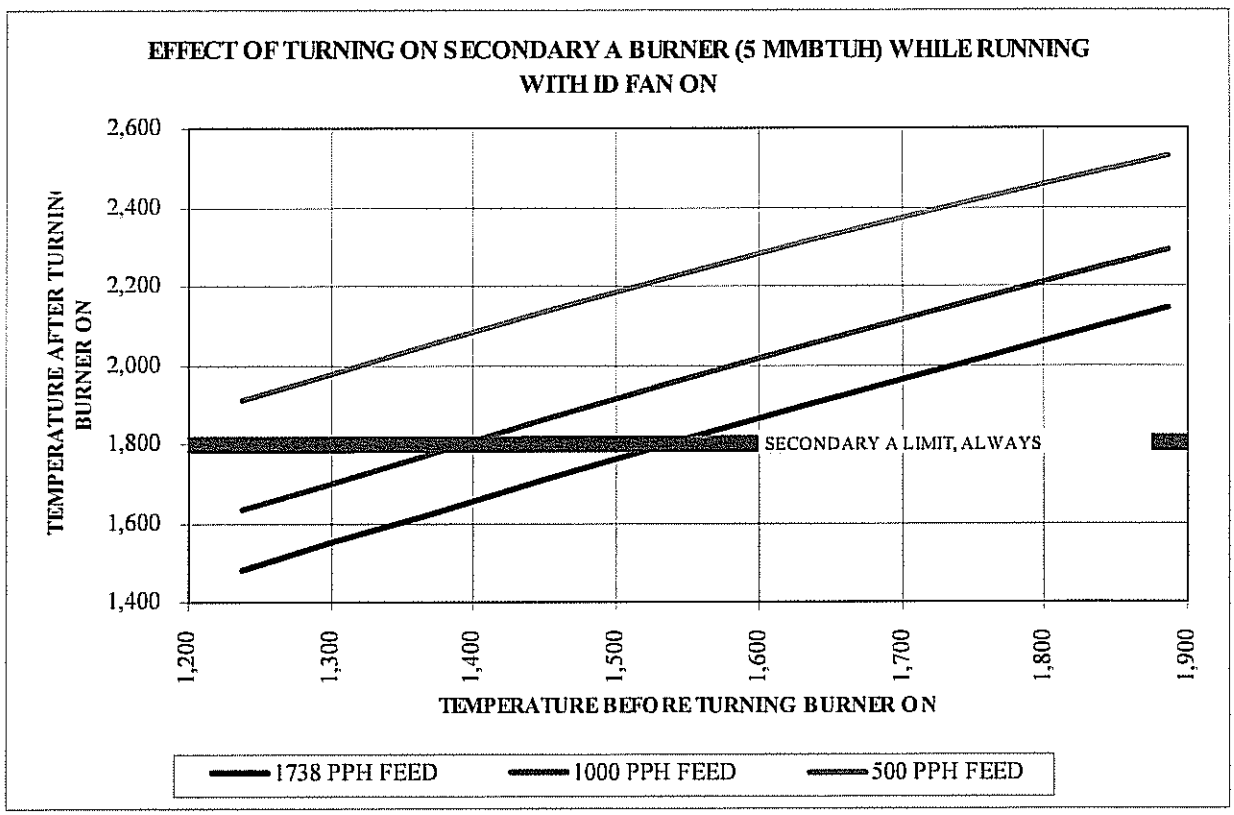
COMPLIANCE MONITORING

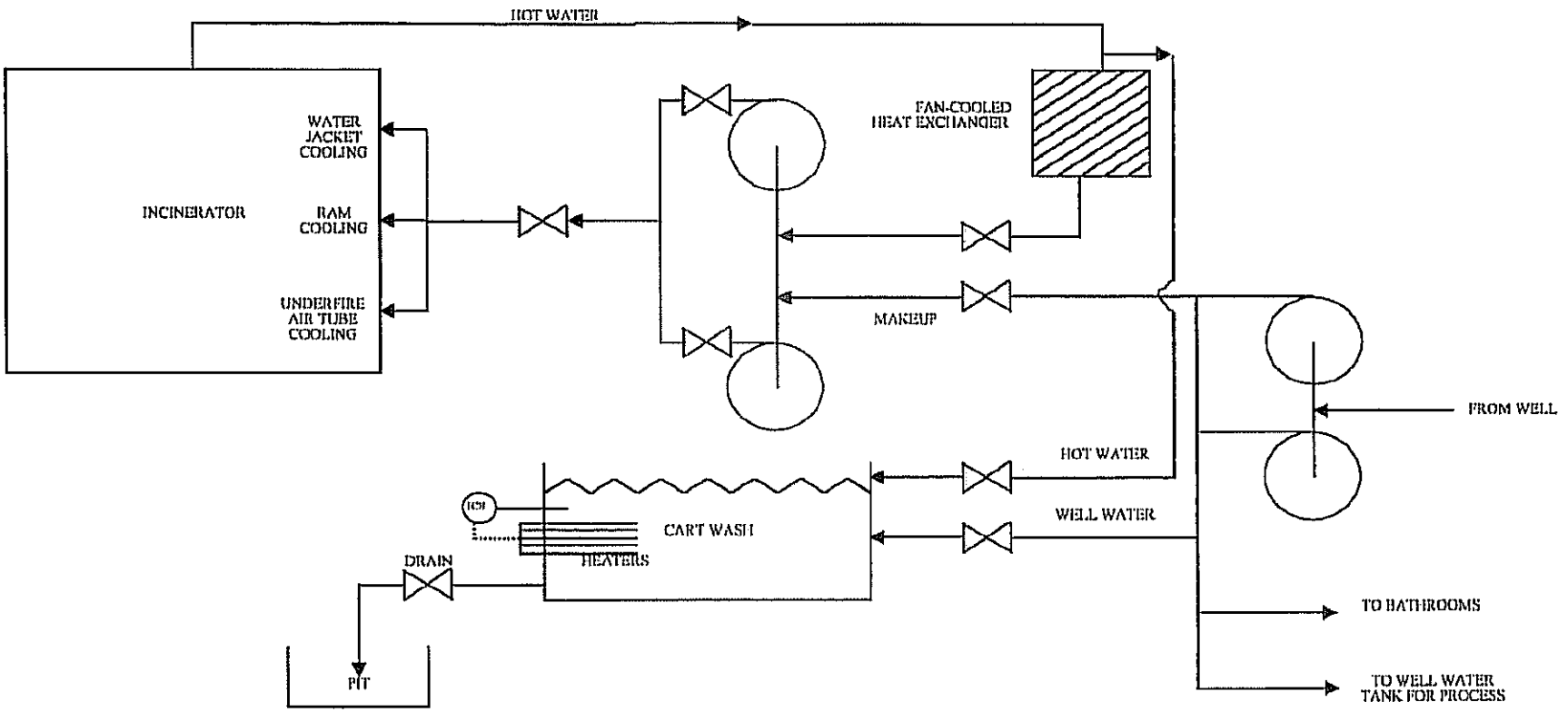
All personnel are required to do everything within their abilities to insure that BMWNC consistently meets the combined requirements of its solid waste and air permits. When personnel become aware of a breech or potential breech, they are required to notify management immediately, regardless of the time of day. The specific stipulations of the permits require the following:

- 1834 pph charge limit maximum
- 1200°F minimum in primary chamber
- 1800°F minimum secondary chamber
- No feed until secondary at 1800°F, primary at 1200°F
- Wood may be used during startup after secondary at 1800°F minimum
- Do not shutdown until two hours after last waste charge
- Secondary at 1800°F minimum, primary at 1200°F minimum for two hours after last charge
- 10 percent opacity limit, 40 ppm CO
- Maximum baghouse inlet 353°F

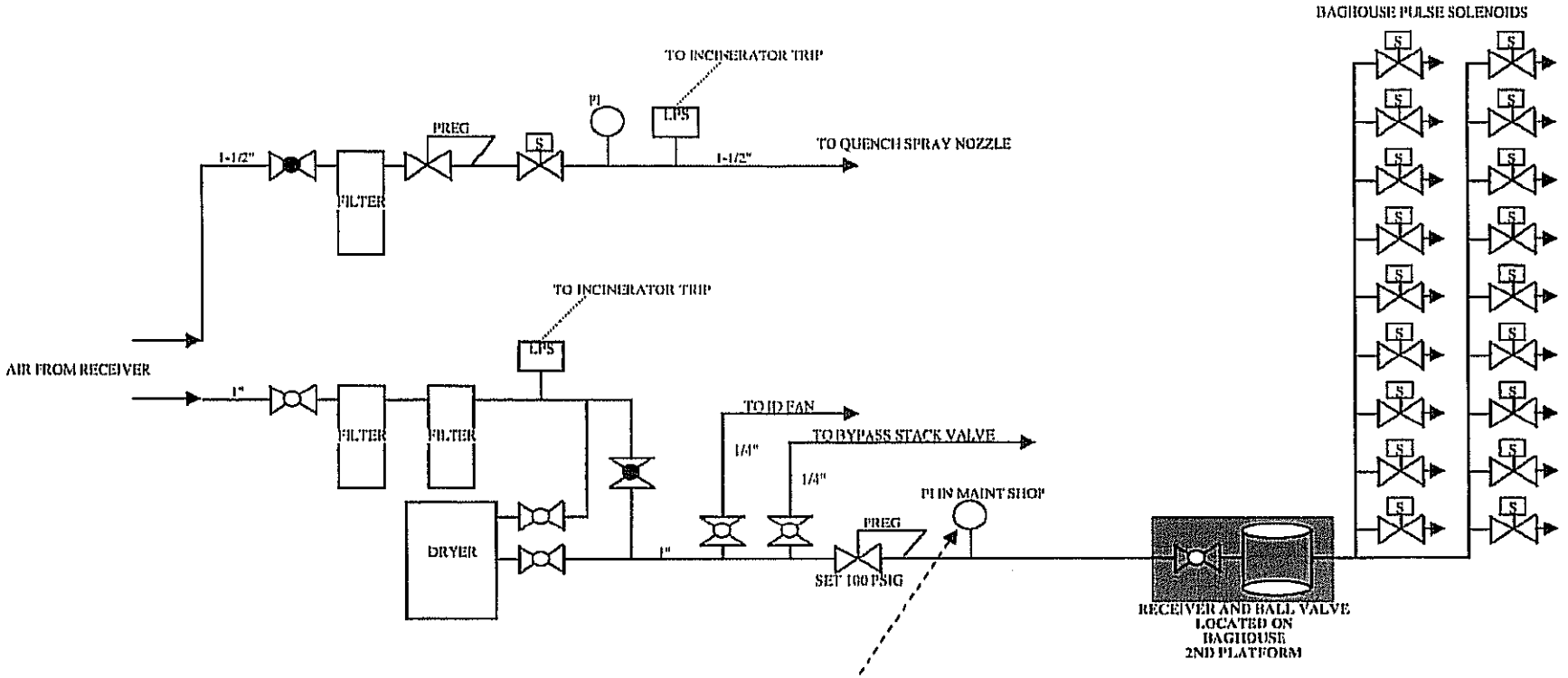
- Minimum lime feed 76 pph and minimum carbon feed four pph
- LUESA ash samples taken every shift
- Shift ash sample composite every week
- Weekly ash samples composited into monthly sample every month
- Wash tank 150°F minimum

The graph below shows that if the operator loses temperature in the secondary and the burner just will not make it to 1800°F, the operator can still get back up to 1800°F by decreasing feed rate a large amount. For instance, if the chamber is at 1400°F before turning on the burner and feeding 1834 pounds per hour, the operator can only get up to 1630°F. But if the operator then drops to 1000 pph feed rate, then the burner will produce 1800°F. This assumes the upper chamber blower is on automatic control.

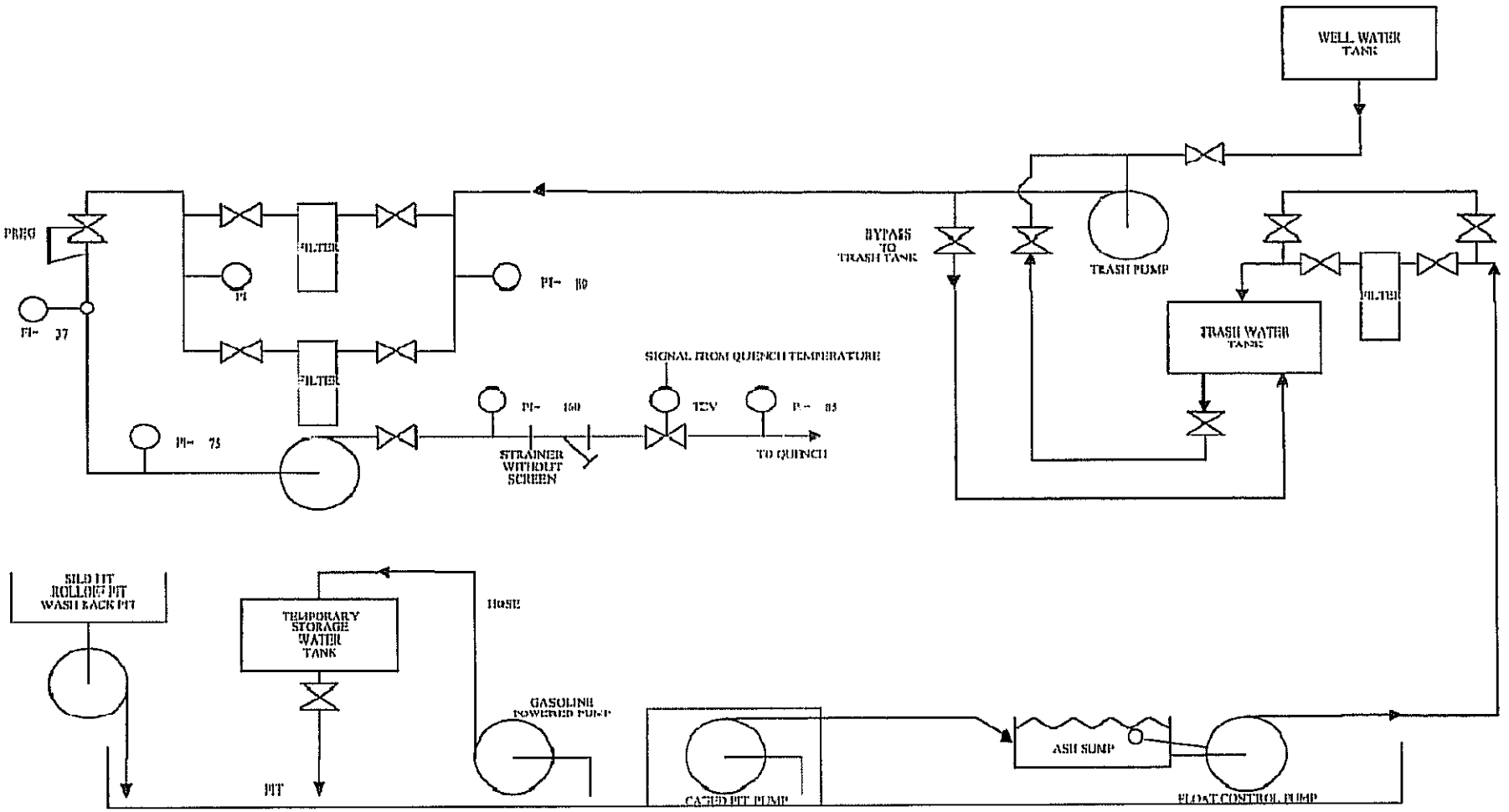




FRESH WATER FLOW DIAGRAM



COMPRESSED AIR FLOW DIAGRAM



QUENCH WATER FLOW DIAGRAM

EMERGENCY RESPONSE PLAN

Building Name	BMWNC Incineration
Plant Building Address	3250 Campus Ridge Road, Matthews, NC 28105
Coordination Control Officer	Each Shift's Shift Supervisor
Shift Supervisor Phone Number	704-821-4766
Designated Meeting Site(s) for Building is	By the Front Gate

Plan Prepared By: Tom Hulme, Plant Manager

Date: 8/23/10

EMERGENCY NUMBERS

Fire 911
Medical 911
City Police 911

PURPOSE AND OBJECTIVES

Potential emergencies at the BMWNC Plant, such as fire, explosion, spill, chemical releases and all other emergencies require employees to evacuate the building. An Emergency Evacuation Plan (EEP) and adequate occupant familiarity with a building minimize threats to life and property. In addition, the Occupational Safety and Health Administration (OSHA) Emergency Action Plan standard, found at 29 CFR 1910.38(a), requires that the BMWNC Plant have a written Emergency Evacuation Plan (EEP). This plan applies to all emergencies where employees may need to evacuate for personal safety.

This EEP is intended to communicate the policies and procedures for employees to follow in an emergency situation. This written plan should be made available, upon request, to employees and their designated representatives by the Shift Supervisor for the building.

Under this plan, employees will be informed of:

- The plan's purpose,
- Preferred means of reporting fires and other emergencies,
- Emergency escape procedures and route assignments,

- Procedures to be followed by employees who remain to control critical plant operations before they evacuate,
- Procedures to account for all employees after emergency evacuation has been completed,
- Rescue and medical duties for those employees who perform them.

Each shift's Shift Supervisor is the Coordination Control Officer for this facility and has overall responsibility for the preparation and implementation of this plan.

Tom Hulme, Plant Manager is the Alternate for Shift Supervisors.

The Shift Supervisor will review and update the plan as necessary. Copies of this plan will be maintained in the Shift Supervisor's Office.

General Guidelines

The following guidelines apply to this EEP:

- All personnel must be trained in safe evacuation procedures. Refresher training is required whenever the employee's responsibilities or designated actions under the plan change, and whenever the plan itself is changed.
- The training may include use of floor plans and workplace maps which clearly show the emergency escape routes included in the EEP. Color-coding aids employees in determining their route assignments. Floor plans and maps should be posted at all times in main areas (Production Floor, Maintenance Shop, near the Wash Rack) of the Plant to provide guidance in an emergency.
- No employee is permitted to re-enter the building until advised by the Fire Department.
- Items that should not be stored near exit routes include chemicals, cardboard, paper, furnishings, and decorations.
- Exit routes are identified on the "Emergency Evacuation Routes" map posted around the building. Exits are also marked "EXIT."
- Ways to notify others of an emergency are telephone, shouting, and radio.
- Once you exit the building, you go to the Front Gate and wait.
- You need to practice evacuation routes so often that you can do it with your eyes closed. This is because it can be completely dark, or filled with smoke.
- No one is allowed to respond to a chemical or possible biological spill inless they have been properly trained.
- If you see a fire, you should notify the supervisor. He will then decide to extinguish it, call 911, and decide whether or not to evacuate the building.

- If an earthquake strikes, hide under a desk, table or doorframe, and then evacuate the building after the earthquake stops.
- In a severe windstorm, take shelter in under the old unused incinerators.
- To be prepared for an emergency at home you should always have on hand a first-aid kit, flashlight, radio, food, water, blankets, toiletries, and cash.

Responsibilities of Shift Supervisors

The Shift Supervisor is responsible for:

1. Obtaining and posting floor plans and route evacuation maps.
2. Overseeing the development, communication, implementation and maintenance of the overall EEP.
3. Ensuring the training of building occupants, and notifying all personnel of changes to the plan.
4. Maintaining up to date lists of building occupants, critical operations personnel, and any other personnel with assigned duties under this plan. Lists are included in Appendix I.
5. In the event of a fire or other emergency, relaying applicable information to emergency personnel and occupants.
6. Establishing a Designated Meeting Site for evacuees.

The Shift Supervisors are also responsible for:

1. Familiarizing personnel with emergency procedures.
2. Acting as liaison between management and their work area.
3. Ensuring that occupants have vacated the premise in the event of an evacuation, and for checking assigned areas.
4. Knowing where their Designated Meeting Site is and for communicating this information to occupants.
5. Having a list of personnel in their area of coverage, so a head count can be made at their Designated Meeting Site.
6. Ensuring that disabled persons and visitors are assisted in evacuating the building.
7. Evaluating and reporting problems to the Plant Manager after an emergency event.
8. Posting the "Area Evacuation Plan" (Appendix III) in the work area, communicating plan to occupants, and updating the plan annually.

Alerting or Signaling Building Occupants in Case of Fire or Other Emergency

1. In case of a fire, employees should make a telephone call to the local Fire Department at 911.
2. It will be necessary to shout the alarm. This can be done while exiting.

3. Persons discovering a fire, smoky condition, or explosion should shout the alarm. Any pertinent fire or rescue information should be conveyed to the Fire Department. All emergency telephone numbers are listed at the beginning of this EEP.
4. To report the emergency, dial 911 and state you name, your location, and the nature of the call. Speak slowly and clearly. Wait for the dispatcher to hang up first. On occasion the dispatcher may need additional information or may provide you with additional instructions.

Evacuation Procedures for Building Occupants

1. When the fire alarm is shouted, all personnel should ensure that nearby personnel are aware of the emergency, quickly shutdown operating equipment, close doors and exit the building.
2. All occupants should proceed to the Designated Meeting Site and await further instructions from their Shift Supervisor.
3. All personnel should know where primary and alternate exits are located, and be familiar with the various evacuation routes available. Floor plans with escape routes, alternate escape routes, exit locations and the Designated Meeting Site are located in Appendix II and are posted in the building.

Notes and Precautions

Small fires can be extinguished only if you are trained to use a fire extinguisher. However, an immediate readiness to evacuate is essential.

All fires, even those that have been extinguished, must be reported to 911 immediately.

Never enter a room that is smoke filled.

Never enter a room if the door is warm to touch.

Fire

- **R - Rescue:** When you discover a fire, rescue people in immediate danger if you can do so without endangering yourself. Exit via safe fire exit. Close doors to room with fire.
- **A - Alarm:** Sound the alarm by shouting and call 911, from a safe distance with a cell phone, to notify of precise location of fire.
- **C - Confine:** Close all doors, windows and other openings.
- **E - Evacuate:** Evacuate the building.

Disabled Occupants

If a disabled occupant is unable to exit the building unassisted, the Shift Supervisor must notify the emergency response personnel of the person's location. Unless imminent life-threatening conditions exist in the immediate area occupied by a non-ambulatory or disabled person, relocation of the individual should be limited to a safe area in close proximity to an evacuation exit.

Critical Operations Shutdown

Critical Operation Shutdown: Critical operations, including equipment that must be shut off and persons designated to complete these actions are identified in Appendix I of this EEP. Procedures for rapid shutdown should be predetermined for life safety and loss control purposes, as well as ensuring complete evacuations in a timely manner.

The Critical Operations Shutdown procedure to be followed by those employees who have been assigned to care for essential building operations include:

Operation	Responsibility
Incinerator operation	Shift Supervisor
Wash rack operation	Shift Supervisor
Trailer unloading/loading	Shift Supervisor
Maintenance work	Shift Supervisor

Persons involved in the Critical Operations Shutdown listed above shall be notified by management of this responsibility in advance, identified in the EEP, and will be appropriately trained for the particular situation. Personnel assigned to critical operations responsibilities are listed in Appendix I.

Accountability Procedures for Emergency Evacuation

Designated Meeting Sites: Groups working together on or in the same area should meet outside the building in the prearranged Designated Meeting Site. A list of the primary and alternate Designated Meeting Sites are listed on the floor plans in Appendix II.

The Shift Supervisor and will conduct head counts once evacuation has been completed.

The Shift Supervisors are to be trained in the complete workplace layout and the various primary and alternate escape routes from the workplace. All trained personnel are made aware of employees with disabilities that may need extra assistance, and of hazardous areas to be avoided during

emergencies. Before leaving, the Shift Supervisors are to check rooms and other enclosed spaces in the workplace for other employees who may be trapped or otherwise unable to evacuate the area, and convey this information to emergency personnel. A list of Shift Supervisors for the Plant appear in Appendix I.

Once each evacuated group of employees have reached their Designated Meeting Site, each Shift Supervisor:

1. Assembles his/her group in the Designated Meeting Site.
2. Takes head count of his or her group.
3. Assumes role of management contact to answer questions.
4. Instructs personnel to remain in area until further notice.
5. Reports status to the Plant Manager.
6. Instructs personnel to remain at Designated Meeting Site until further notice.

Rescue and Medical Duties

- The Fire Department, or Emergency Medical Technicians (EMT) will conduct all rescue and medical duties.
- Do not move injured personnel. Keeps the person lying down, covered and warm.

Resource and Responsibilities Lists

EEP Organization: The lists in Appendix I include the names of employees, managers, staff or other personnel and their job titles, job positions and relative EEP collateral duties. The purposes served by the lists are:

1. To tell employees who to see for additional information on the EEP.
2. To provide emergency response personnel with a list of department personnel which may be needed in order to provide additional information about the fire, a chemical, a hazardous waste location, a shipment of chemicals, etc.
3. The lists should be updated by the Shift Supervisor on an as-needed basis.

Training and Communications

Each occupant should know that evacuation is necessary and what his/her role is in carrying out the plan. Employees should also know what is expected of them during an emergency to assure their safety. Training on the EEPs content is also required by OSHA 29 CFR 1910.38(a).

A method of training building occupants in the requirements of the emergency evacuation plan is to give all employees a thorough briefing and demonstration. The department will have all managers and supervisors present this plan to their staffs in staff meetings. Annual practice drills are to be implemented and documented by the Shift Supervisor.

A Training Attendance Record Sheet is included in Appendix I. This record should be maintained by the Shift Supervisor for a period of five (5) years.

Emergency Evacuation Plan Responsibilities List BMWNC

Building Name BMWNC, Inc. Incinerator Plant

Address 3250 Campus Ridge Road

Title: Shift Supervisors

Name Analy Huseca, Lee Doster,

Rich Zurenda, Tim Edwards

Location: Supervisors' Office

Telephone 704-200-2034

Total Number of Employees 3 per shift 4 shifts

1 Maintenance Manager Ervin Edwards 704-634-4361

1 General Manager Tom Hulme 704-200-2034

Personnel Assigned To Critical Operations Responsibilities

Critical Operation

Maintenance Manager

- Ervin Edwards 704-634-4361

Shift Supervisor

- Analy Huseca 980-328-5731
- Lee Doster 704-236-9214
- Richard Zurenda 704-974-1452

- Tim Edwards

SHIFT EMPLOYEES

- Laura Brown 704-684-0321

Julie Dominguez 704-264-5418

- Charles Harris 704-545-9970
- Jose Mendez 704-808-1777
- Ignacio Monge 704-441-0669
- Araceli Retana 704-449-1261
- Jesus Solis 704-537-9650

HOUSEKEEPING

- Kenia Castillo 704-226-7795

CONCLUSIONS

BMWNC submits Title V reports to Mecklenburg County Air Quality which includes emission reports including any exceeding incidence pertaining to Maximum Charge rate, Maximum Filter Inlet Temperature, Minimum Secondary Chamber Temperature, and Minimum Sorbent Flow Rate. This information can be reviewed while on site in Matthews, NC.

SORBENT PROCEDURES

SORBENT RATE VERIFICATION RECORDS

Set up weight scale and set tare weight

Check stop watch operation and set to zero.

Verify hopper feed setting.

Capture sample for a period of one minute

Weigh the container and record the weight on the log sheet.

Repeat steps 1 through 5 for the opposite material (either lime or carbon).

Rate per hour is determined by multiplying the weight of the sample by 60

Then divide the sum total by16 which equals pounds per hour

The validation process will be completed and recorded once a week.

Log sheets will be maintained in a binder in the Maintenance Shop titled Sorbent Rate Verification.

The validation process is performed by turning off the power to the sorbent system and disassembling the piping so that calibration can be performed.

Three consecutive calibrations are performed on the lime and carbon. These calibrations normally take approximately 3-4 minutes for each sample. Normal downtime of the sorbent system should be between 20 and 25 minutes. During normal operation, the sorbent system is operating higher than the permit limits which will help compensate for the 20-25 minute downtime to calibrate. Additionally, HWS is researching the possibility of combining the sorbent ingredients which will decrease the amount of downtime as only one calibration exercise will be needed.

SORBENT DATA LOGGER RECORDS

The data captured by the Sorbent Data Logger, will be recorded and maintained as follows;

Motor voltages shall be captured every 15 minutes while the plant is in operation.

Data will be downloaded on a weekly basis and printed to hard copy and maintained in the office in a binder titled, Sorbent Data Records.

Real time data will be displayed on the visual read out on the enclosure where the recorder is located.

If Data Records are requested for a non-printed time segment, data will be downloaded and printed upon the request.

The carbon hopper and the lime hopper are fitted with level reading proximity switches.

The carbon hopper has two separate level devices; one will be an indicator that carbon needs to be added, this device will activate an audible and a visual alarm as well as readout on the control panel, alerting the operator that carbon is needed.

If the hopper level goes so low that carbon is not available to the screw, the alarms and readout indicator will actuate in conjunction with a hydraulic system override that will not allow the incinerator to be charged until the carbon level is restored and the alarms cleared.

The lime hopper is fitted with one level sensor that if activated, will active the audible and visual alarms in conjunction with the readout on the control panel alerting the operator to the condition. This device will also override the hydraulic system to prevent further charging of the incinerator until the lime flow is restored and the alarms are cleared.

The Carbon will be stored under cover to reduce the potential of handling difficulties with the product.

Sorbent Daily Log Sheet

SORBENT DAILY LOG

		Lime			Carbon						
Date	Time	DC Volts	Feeder Setting	Vibrator Setting	DC Volts	Feeder Setting	Vibrator Setting	Carbon Added (Yes/No)	Blower Motor AMPS	Supervisor	Comments

[illegible] Waste Services
[illegible], NC

[illegible] Sorbent Daily Log Sheet ([illegible]).xlsx

[illegible]/2010
Sheet 1 of 1

Pressure Data Logger Records

The data captured by the Pressure Data Logger (HOBO U12, four channel, outdoor industrial data logger), will be recorded and maintained as follows;

Differential Pressure across the filter bag house (Dwyer IDSP Intrinsically Safe Differential Pressure Transmitter) and Static Pressure of the Primary Chamber shall be captured every 15 minutes while the plant is in operation.

Data will be downloaded on a weekly basis and printed to hard copy and maintained in the office in a binder titled, Pressure Data Records.

Real time data will be displayed on the visual read out for the Primary Chamber Static Pressure at the control panel location and for the Differential Pressure of the filter bag house adjacent to the bag house transducer location . (Dwyer IDSP Intrinsically Safe Differential Pressure Transmitter)

If Data Records are requested for a non-printed time segment, data will be downloaded and printed upon the request.

The static pressure gauge located at the control panel will be monitored by the Operator on a frequent basis. The Differential Pressure gauge (Dwyer IDSP Intrinsically Safe Differential Pressure Transmitter) will be monitored by the Shift Supervisor and Operations Personnel as they make precursory rounds of inspection through the pollution control equipment area to monitor proper operation.

If the differential pressure across the bag house is determined to be above normal, the observation will be reported to the Shift Supervisor so that cause can be determined and necessary corrective action can be exercised.

The air pulse system is set to automatically pulse the fabric filter bags on a one hour frequency.