## WOOL FIBERGLASS MANUFACTURING

## **Monitoring Requirements**

#### A. OPERATION, MAINTENANCE AND MONITORING PLAN (OMMP)

1.	Did the facility prepare a written Operation, Maintenance and Monitoring Plan (OMMP)? <b>[§63.1383(a)]</b>	Yes[] No[]
2.	Was the OMMP submitted to the Administrator for review and approval as part of the application for a part 70 permit? [§63.1383(a)]	Yes[] No[]
3.	Does the OMMP include procedures for	
a.	the proper O&M of process modifications and add-on control devices? 63.1383(a)(1)	Yes[] No[]
b.	proper O&M of monitoring devices? [§63.1383(a)(2)]	Yes [ ] No [ ]
C.	corrective action to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests? [§63.1383(a)(3)]	Yes[] No[]

Comments:

### B. BAG LEAK DETECTION SYSTEM (BLDS)

1.		Is the facility using a baghouse to control PM emissions from its glass melting furnace? <b>[§63.1383(b)(1)]</b>	Yes[] No[]
		<i>Note</i> : If the answer to this question is "No", skip to <u>C</u>	
2.		Did the facility install, calibrate, and is it maintaining and continuously operating a BLDS ? <b>[§63.1383(b)(1)]</b>	Yes[] No[]
3.		Was the BLDS certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less? [§63.1383(b)(1)(i)]	Yes[] No[]
4.		Does the BLDS sensor produce output of relative PM emissions? [§63.1383(b)(1)(ii)	Yes[] No[]
5.	a.	Is the BLDS equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected? [§63.1383(b)(1)(iii)]	Yes[] No[]
	b.	is the alarm located such that it can be heard by the appropriate plant personnel? <b>[§63.1383(b)(1)(iii)</b>	Yes[] No[]
6.		If positive pressure fabric filter systems are used, has a BLDS been installed in each baghouse compartment or cell? [§63.1383(b)(1)(iv)]	Yes [ ] No [ ] N/A [ ]

7.		If a negative pressure or induced air baghouse is used, is the BLDS installed downstream of the baghouse? [§63.1383(b)(1)(iv)]	Yes [ ] No [ ] N/A [ ]
		<i>Note:</i> Where multiple bag leak detection systems are required (for either type of baghouse), the system instrumentation and alarm may be shared among the monitors?	
8.		If a triboelectric BLDS has been installed, is it operated, adjusted, and maintained in a manner consistent with the U.S. Environmental Protection Agency guidance, ``Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997)? [§63.1383(b)(1)(v)]	Yes[] No[] N/A[]
9.		If another type of BLDS has been installed, is it operated, adjusted, and maintained in a manner consistent with the manufacturer's written specifications and recommendations? [§63.1383(b)(1)(v)]	Yes [ ] No [ ] N/A [ ]
10.		Did the initial adjustment of the BLDS, at a minimum, consist of establishing the baseline output by adjusting/establishing the	
	a.	range of the device? [§63.1383(b)(1)(vi)]	Yes[] No[]
	b.	averaging period of the device? [§63.1383(b)(1)(vi)]	Yes[] No[]
	c.	alarm set points ? <b>[§63.1383(b)(1)(vi)]</b>	Yes[] No[]
	d.	alarm delay time? <b>[§63.1383(b)(1)(vi)]</b>	Yes[] No[]
11.		Following the initial adjustment, has the facility adjusted (except as detailed in the approved OMMP) the	
	a.	range? [§63.1383(b)(1)(vii)]	Yes[] No[]
		<i>Note:</i> In no event shall the range be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless a responsible official as defined in Sec. 63.2 of the general provisions in subpart A of this part certifies that the baghouse has been inspected and found to be in good operating condition.	
	b.	averaging period? §63.1383(b)(1)(vii)	Yes[] No[]
	C.	alarm setpoints, or alarm delay time? [§63.1383(b)(1)(vii)]	Yes[] No[]
12.		Does the OMMP specify corrective actions to be followed in the event of a BLDS alarm? [§63.1383(b)(2)]	Yes[] No[]

Comments:

\_\_\_\_\_

#### C. ESP MONITORING

C. ESP MONITORING			
1.		Is the facility using an electrostatic precipitator (ESP) to control PM emissions from its glass melting furnace? <b>[§63.1383(c)(1)]</b>	Yes[] No[]
		<i>Note</i> : If the answer to this question is "No", skip to D	
2.		Is the facility monitoring the ESP according to the procedures in the OMMP? [§63.1383(c)(1)]	Yes[] No[]
3.		Does the OMMP contain	
	a.	the ESP operating parameter(s), such as secondary voltage of each electrical field, to be monitored and the minimum and/or maximum value(s) that will be used to identify any operational problems? [§63.1383(c)(2)(i)]	Yes[] No[]
	b.	a schedule for monitoring the ESP operating parameter(s)? [§63.1383(c)(2)(ii)]	Yes[] No[]
	C.	recordkeeping procedures, consistent with the recordkeeping requirements of Sec. 63.1386, to show that the ESP operating parameter(s) is within the limit(s) established during the performance test? <b>[§63.1383(c)(2)(iii)]</b>	Yes[] No[]
	d.	procedures for the proper operation and maintenance of the ESP? [§63.1383(c)(2)(iv)]	Yes[] No[]

Comments:

### D. COLD TOP ELECTRIC FURNACE (WITHOUT ADD-ON COTROLS)

1.	Is the facility operating a cold top electric furnace that does not use any add-on controls to control PM emissions? [§63.1383(d)]	Yes[]	No [ ]
	Note: If the answer to this question is "No", skip to E		
2.	Is the facility measuring and recording at least once per shift the temperature 46 to 61 centimeters (18 to 24 inches) above the surface of the molten glass? <b>[§63.1383(d)]</b>	Yes[]	No [ ]

#### E. GLASS-MELTING FURNACE, WITH NO ADD-ON CONTROLS

1.	Is the facility operating a glass-melting furnace without an add-on control device to control PM emissions? <b>§63.1383(e)(1)</b>	Yes[]	No [ ]
	<i>Note</i> :The answer to this question should be "Yes" if the answer is "No" to questions 1, for B, C and D above		
2.	Is the facility monitoring the glass-melting furnace according to the procedures in the OMMP? §63.1383(e)(1)	Yes[]	No [ ]
3.	Does the OMMP contain:		
a.	information on the operating parameter(s) to be monitored and the minimum and/ or maximum value(s) that will be used to identify any operational problems? <b>§63.1383(e)(2)(i)</b>	Yes [ ]	No [ ]
b.	a schedule for monitoring the operating parameter(s) of the glass-melting furnace? §63.1383(e)(2)(ii)	Yes [ ]	No [ ]
C.	recordkeeping procedures to show that the glass-melting furnace parameter(s) is within the limit(s) established during the performance test? [§63.1383(e)(2)(iii)/§63.1386]	Yes[]	No [ ]
d.	procedures for the proper operation and maintenance of the glass-melting furnace? [§63.1383(e)(2)(iv)]	Yes[]	No [ ]

#### Comments:

# F. GLASS-MELTING FURNACE EQUIPPED/NOT EQUIPPED WITH CONTINUOUS GLASS PULL RATE MONITORS.

1.		If the facility is operating an existing glass-melting furnace equipped with continuous glass pull rate monitors, is it monitoring and recording the glass pull rate on an hourly basis? [§63.1383(f)(1)]	Yes[] No[] N/A[]
2.		If the facility is operating an EXISTING glass-melting furnace not equipped with continuous glass pull rate monitors, is the glass pull rate monitored and recorded once per day? <b>[§63.1383(f)(1)]</b>	Yes [ ] No [ ] N/A [ ]
3.		If the facility is operating a NEW glass-melting furnace, has it	
	a.	installed a continuous glass pull rate monitor? [§63.1383(f)(2)]	Yes [ ] No [ ] N/A [ ]
	b.	calibrated a continuous glass pull rate monitor? [§63.1383(f)(2)]	Yes [ ] No [ ] N/A [ ]
	C.	Is it maintaining a continuous glass pull rate monitor that monitors and records on an hourly basis the glass pull rate? [§63.1383(f)(2)]	Yes [ ] No [ ] N/A [ ]

#### **G. INCINERATOR MONITORING**

1.		Is the facility using an incinerator to control formaldehyde emissions from forming or curing? [§63.1383(g)(1)]	Yes[] No[]
		Note: If the answer to this question is "No", skip to ${\sf H}$	
2.		Did the facility	
	a.	install a monitoring device that continuously measures and records the operating temperature in the firebox of each incinerator?[§63.1383(g)(1)]	Yes[] No[]
	b.	calibrate this device? [§63.1383(g)(1)]	Yes[] No[]
	c.	Is it maintaining this device? [§63.1383(g)(1)]	Yes[] No[]
	d.	Is it operating this device? [§63.1383(g)(1)]	Yes[] No[]
3.		Did the facility	
	a.	inspect each incinerator at least once per year according to the procedures in the OMMP? [§63.1383(g)(2)]	Yes[] No[]
	b.	inspect all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor, as necessary? [§63.1383(g)(2)(i)]	Yes[] No[]
	C.	inspect each incinerator to ensure proper adjustment of combustion air and did it make adjustments, as necessary? [§63.1383(g)(2)(ii)]	Yes[] No[]
	d.	inspect, when possible, internal structures, for example, baffles, to ensure structural integrity per the design specifications? <b>[§63.1383(g)(2)(iii)]</b>	Yes[] No[]
	e.	<pre>inspect dampers, fans, and blowers for proper operation? [§63.1383(g)(2)(iv)]</pre>	Yes[] No[]
	f.	inspect for proper sealing?[ §63.1383(g)(2)(v)]	Yes[] No[]
	g.	inspect motors for proper operation? [§63.1383(g)(2)(vi)]	Yes[] No[]
	h.	inspect combustion chamber refractory lining and clean and repair/replace lining, as necessary? [§63.1383(g)(2)(vii)]	Yes[] No[]
	i.	inspect incinerator shell for corrosion and/or hot spots? [§63.1383(g)(2)(viii)]	Yes[] No[]
	j.	inspect for the burn cycle that follows the inspection? [§63.1383(g)(2)(ix)]	Yes[] No[]
	k.	document that the incinerator is operating properly? [§63.1383(g)(2)(ix)]	Yes[] No[]
	I.	make any necessary adjustments? [§63.1383(g)(2)(ix)]	Yes[] No[]
	m.	generally observe that the equipment is maintained in good operating condition? [§63.1383(g)(2)(x)]	Yes [ ] No [ ]
	n.	complete all necessary repairs as soon as practicable? [§63.1383(g)(2)(xi)]	Yes[] No[]

#### H. WET SCRUBBING DEVICE MONITORING

1.	Is the facility using a wet scubbing device to control formaldehyde emissions? [§63.1383(h)]	Yes[] No[]
	<i>Note</i> : If the answer to this question is "No", skip to I	
2.	Did the facility	
a.	install monitoring devices that continuously monitor and record the gas pressure drop across each scrubber and scrubbing liquid flow rate to each scrubber according to the procedures in the OMMP? [§63.1383(h)]	Yes[] No[]
b.	Is it maintaining the monitoring devices? ]§63.1383(h)]	Yes [ ] No [ ]
c.	Is it operating the monitoring devices? [§63.1383(h)]	Yes [ ] No [ ]
3.	Was the pressure drop monitor certified by its manufacturer to be accurate within <plus-minus>250 pascals (<plus-minus>1 inch water gauge) over its operating range? [§63.1383(h)]</plus-minus></plus-minus>	Yes[] No[]
4.	Was the flow rate monitor certified by its manufacturer to be accurate within <plus-minus>5 percent over its operating range? [§63.1383(h)]</plus-minus>	Yes[] No[]
5.	Is the facility continuously monitoring and recording the feed rate of any chemical(s) added to the scrubbing liquid? <b>[§63.1383(h)]</b>	Yes[] No[]

#### Comments:

#### I. PROCESS MODIFICATIONS

1.		Does the facility use process modifications to control formaldehyde emissions? [§63.1383(i)(1)]	Yes[] No[]
		<i>Note:</i> The answer to this question should be "Yes" if the answer was "No" to questions 1, for both G and H above.	
2.		Did the facility establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored? [§63.1383(i)(1)]	Yes[] No[]
3.		Is the facility monitoring the established parameter(s) according to the procedures in the OMMP? [§63.1383(i)(2)]	Yes[] No[]
4.		Did the facilty include as part of its OMMP	
	a.	procedures for the proper operation and maintenance of the process? [§63.1383(i)(3)(i)]	Yes[] No[]
	b.	process parameter(s) to be monitored? [§63.1383(i)(3)(ii)/§63.1382]	Yes[] No[]
	C.	correlation(s) between process parameter(s) to be monitored and formaldehyde emissions? [§63.1383(i)(3)(iii)]	Yes[] No[]
	d.	a schedule for monitoring the process parameter(s)? [§63.1383(i)(3)(iv)]	Yes[] No[]

<ul> <li>recordkeeping procedures to show that the process parameter value(s) established during the performance test is not exceeded?</li> <li>[§63.1383(i)(3)(v)/§63.1386]</li> </ul>	Yes[] No[]
---	------------

#### Comments:

#### J. FREE-FORMALDEHYDE CONTENT

Is the facility monitoring and recording the free-formaldehyde content of each resin shipment received and used in the formulation of binder?	Yes[] No[]
[§63.1383(j)]	

#### Comments:

#### K. FORMULATION OF EACH BATCH OF BINDER USED

Is the facility monitoring and recording the formulation of each batch of binder used? <b>[§63.1383(k)]</b>	Yes[] No[]
---	------------

Comments:

#### L. PRODUCT LOI (LOSS ON IGNITION) AND PRODUCT DENSITY

1.		Is the facility monitoring and recording at least once every 8 hours	Yes[]	No [ ]
	a.	the product LOI? <b>[§63.1383(I)]</b>		
	b.	the product density of each bonded wool fiberglass product manufactured? [§63.1383(I)]	Yes [ ]	No [ ]

# M. CHANGE OF LIMITS ESTABLISHED DURING THE INITIAL PERFORMANCE TESTS

1.		Did the facility	
	a.	change the limits established during the initial performance tests for any control device and process operating parameters measured during the initial performance tests? [§63.1383(m)]	Yes[] No[]
	b.	conduct additional performance testing to verify that, at the new control device or process parameter levels, comply with the applicable emission limits? [§63.1383(m)/§63.1382]	Yes [ ] No [ ] N/A [ ]
	C.	conduct all additional performance tests? [§63.1383(m)/ §63.1384]	Yes [ ] No [ ] N/A [ ]

## Comments: \_\_\_\_\_