



South Coast Air Quality Management District

FORM ST-221AP

21865 E. Copley Drive, Diamond Bar, CA 91765-4182

Monitoring & Analysis Division, Source Test Engineering Branch (909) 396-2281

APPLICATION FOR INITIAL CERTIFICATION, OR MODIFICATION, OF RECLAIM LARGE SOURCE STACK FLOW CONTINUOUS MONITOR

<i>Applicant: Please check all that are applicable regarding your submittal:</i>		
Present Status:	<input type="checkbox"/> Currently <i>or</i> <input type="checkbox"/> Previously Certified (certification no. _____ date _____) ¹	<input type="checkbox"/> New Source
Type Application:	<input type="checkbox"/> Initial Certification	<input type="checkbox"/> <u>Modification / Recertification:</u> <input type="checkbox"/> Process Modification <input type="checkbox"/> Monitor Modification
Source(s) Monitored:	<input type="checkbox"/> One Source (Dedicated)	<input type="checkbox"/> More than one Source: <div style="border: 1px solid black; padding: 2px; display: inline-block;">(specify number of sources)</div>

Please fill out the requested information below, as completely as possible, and return it to the District c/o Monitoring & Source Test Engineering Branch. If additional space is required, attach supplementary pages to the end of this form.

1. APPLICANT, COMPANY, CONTACT INFORMATION

Facility ID No : _____

Facility Permit Holder : _____

Mailing Address : _____

Equipment Location : _____
(Also include Company Name if different from Business License Name listed above)

Company Contact : _____
Name Phone

_____ Title E-mail Address

AQMD Contacts : _____
Permit Engineer's Name Phone Extension

_____ Inspector's Name Phone Extension

¹ Be sure to attach a copy of certification.

2. SOURCE MONITORING DESCRIPTION

EQUIPMENT 1:

AQMD Application/Permit No. or RECLAIM Device I.D.

Description : _____
(from Application or Permit, including control equipment) _____

Operating Rate (incl units) : _____
Design *Normal* *Minimum*

Process Characteristic : Continuous Intermittent² Batch

EQUIPMENT 2:

AQMD Application/Permit No. or RECLAIM Device I.D.

Description : _____
(from Application or Permit, including control equipment) _____

Operating Rate (incl units) : _____
Design *Normal* *Minimum*

Process Characteristic : Continuous Intermittent² Batch

EQUIPMENT 3:

AQMD Application/Permit No. or RECLAIM Device I.D.

Description : _____
(from Application or Permit, including control equipment) _____

Operating Rate (incl units) : _____
Design *Normal* *Minimum*

Process Characteristic : Continuous Intermittent² Batch

² Equipment operates on-demand, is supplemental, or is a back-up to another piece of equipment.

3. PROCESS DESCRIPTION

Briefly describe manufacturing and control processes in the space below, and include a simplified process flow diagram in *Appendix A*.

4. FLUE GAS AND STACK INFORMATION AT THE FLOW SENSOR LOCATION

Please include a simplified stack diagram in *Appendix B*.

a. STACK SAMPLING LOCATION AND DESCRIPTION

	<i>Diameter or Length</i>	<i>Width</i>
Stack dimensions	: _____ ft. in.	_____ ft. in.
Overall stack height	: _____ ft. in.	
CEMS probe tip distance in stack from stack wall	: _____ ft. in.	
CEMS probe distance downstream from disturbance	: _____ ft. in.	
CEMS probe distance upstream from disturbance	: _____ ft. in.	
Reference sample port distance from CEMS probe	: _____ ft. in.	(check) <input type="checkbox"/> Upstream <input type="checkbox"/> Downstream

b. ANTICIPATED RANGE OF STACK EXHAUST GAS PARAMETERS

Contaminant Gas :	NO _x : _____ to _____ ppm	SO _x : _____ to _____ ppm
(Other gas)	CO : _____ to _____ ppm () : _____ to _____ ppm	() : _____ to _____ ppm () : _____ to _____ ppm
Diluent Gas :	CO ₂ : _____ to _____ %	O ₂ : _____ to _____ %
(Other gas)	() : _____ to _____ %	() : _____ to _____ %
Particulate Matter :	_____ to _____	gr/dscf
Static Pressure :	_____ to _____	in H ₂ O
Temperature :	_____ to _____	°F
Moisture :	_____ to _____	%
Flow Rate :	_____ to _____	dscfm

5. FLOW MONITOR DESCRIPTION Please include a simplified flow monitor diagram in *Appendix C* and attach manufacturer's specification sheets.

(Serial numbers shall be submitted when installation is completed)

a. PRINCIPLE FLOW MONITOR EQUIPMENT

Make	Model	Principle (Pitot tube, ultrasonic, annubar, etc.)	Proposed Range(s)	<i>(check)</i> ³ Dry Wet	
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>

SECONDARY FLOW MONITOR EQUIPMENT (temperature, pressure correction, etc.)

Make	Model	Description/Proposed Range

b. DATA ACQUISITION, RECORDKEEPING AND REPORTING EQUIPMENT (Computer, DAS, PLC, Data Logger, Chart Recorder etc.) Also indicate which chart recorder/data logger will be used for certification.

Make	Model	Description

³ Raw meter reading will be to *dry* or *wet* conditions, excluding external corrections (If any readings are “wet”, be sure to detail how they will be corrected to dry standard conditions in *Appendix D*)

5. FLOW MONITOR COST INFORMATION

	<i>Equipment & Materials</i>	<i>Total System as Installed</i>
Estimated Cost of Equipment :	\$ _____	\$ _____
CEMS Contractor :	_____	
Address :	_____	

Phone :	_____	

6. DETERMINATION OF REQUIRED MONITORING PARAMETERS

Detail, step by step in *Appendix D*, how the flow information will be acquired. Include discussion of how secondary parameters such as temperature, pressure, moisture or acceptable correction factors will be treated to obtain a flue or stack flowrate to standard conditions. If constants or correction factors are to be used to standardize flow, the information must be fully documented and justified according to AQMD standards (include historical data, etc.).

7. COMPUTER PROGRAMMING LOGIC FOR THE PARAMETERS IN SEC. 7

Briefly describe in *Appendix E* how these parameters will be programmed into the data reduction and recording units. Use block diagrams, or a copy of recorded data if needed, to show the location in the program where constants, variables and other parameters are entered. Indicate DAS polling frequency.

8. APPLICABLE PERMITS AND PERMIT CONDITIONS

Please include as attachments, applicable permits and permit conditions (and AQMD correspondence which you feel is helpful) related to all basic and control equipment which will be monitored by this flow monitor.

9. MANUFACTURER'S OR VENDOR'S FLOW MONITOR SPECIFICATIONS

Please attach manufacturer's or vendor's specification sheets for all equipment or devices which relate to this flow monitor.

10. QA/QC PROCEDURES

A complete Quality Assurance Plan (QAP) concerning this flow monitor must be submitted as a condition of Final Certification, or an existing QAP must be updated as a condition of Re-certification. In this Plan, you must address the on-going maintenance and contingencies necessary to assure the continued reliability of emission information. Discuss scheduled and unscheduled maintenance, contingencies for equipment/CEMS

outages and modifications, recordkeeping and reporting, periodic testing, personnel responsible for assuring implementation of this Plan, etc.

13. FLOW MONITOR ENCLOSURE (Please indicate below):

- Flow monitor will be enclosed in an environmentally-controlled shelter with:
 - Temperature alarm or record of exceedances of manufacturer's specified operating range.
 - No provisions for temperature alarm or record (Additional QA certification testing required).
- Flow monitor shelter will not be environmentally-controlled (Additional QA certification testing shall be required).

14. STATEMENT OF CONFIDENTIALITY

Do you regard any of the information included in this application as confidential?

(check)

- YES NO - If yes, please explain below, or use additional pages:

(APPLICATION MUST BE SIGNED AND DATED BY RESPONSIBLE COMPANY REPRESENTATIVE)

SIGNATURE OF COMPANY REPRESENTATIVE			
SIGNATURE: _____	DATE: _____		
_____ (NAME)	_____ (TITLE)	_____ (PHONE)	_____ (DATE)

Please mail or deliver your completed CEMS Application(s) to:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 East Copley Drive
Diamond Bar, CA 91765-4182

C/O: Mr. Rudy Eden, Manager,
Source Test Engineering Branch,
Monitoring & Analysis Division

A basic or initial application fee is due with each CEMS Application (Reference: District Rule 301(i)(5), please complete attached Form ST-400 "RECLAIM & Non-RECLAIM CEMS Plan, Application Fee Processing Form"). A copy of this application is also available on disk, formatted for MS WORD 97. For more information, please contact us at (909) 396-2281 (e-mail: knelsen@aqmd.gov).

APPENDIX A

SIMPLIFIED PROCESS FLOW DIAGRAM (*Reference Section 3*)

Show simple flow/block diagram with basic and control equipment including the exhaust stack where the Flow Monitor will be mounted. Be sure to include by-pass ducts, emergency venting stacks, blanked-off stacks, recirculated flows and influent or effluent flow to or from related processes.

APPENDIX B

SIMPLIFIED STACK DIAGRAM (*Reference Section 4*)

Show the Flow Monitor sampling probe and reference sample port locations (top/cross-section and side views) in the exhaust stack with respect to the upstream and downstream flow disturbances (fans, dampers, transitions, change in stack cross-sectional areas, etc.). Indicate distances and dimensions for the above information.

APPENDIX C

SIMPLIFIED FLOW MONITOR DIAGRAM (*Reference Section 5*)

In the following, please provide a diagram of the Flow Monitor, and how it is configured with respect to secondary monitoring equipment, and data acquisition, recordkeeping, and reporting equipment.

APPENDIX D

DETERMINATION OF REQUIRED MONITORING PARAMETERS

(Reference Section 6)

Detail, step by step, how the parameters checked in *Section 6* will be applied to the final monitoring requirement by use of equations, assumptions, and calculations. (Be sure to detail how corrections will be made to dry, standard conditions, or conditions imposed by rules or permits).

APPENDIX E

BRIEF DESCRIPTION OF COMPUTER PROGRAMMING LOGIC

(Reference Section 7)

Briefly describe how the parameters you described in *Section 6* will be programmed into the data reduction and recording units. Use block diagrams, or a copy of recorded data if needed, to show the location in the program where constants, variables and other parameters are entered. Also include the frequency that each monitoring parameter is polled by the DAS/PLC.
