COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Division or Section of APCD/Stationary Sources Program

INTER-OFFICE COMMUNICATION

PS Memo 99-1

TO: CP Permit Engineers

FROM: Dennis M. Myers and Aaron Frame

DATE: February 24, 1999

SUBJECT: Operating parameters for common control devices

In order to standardize final approval permits for true minor sources with control devices, standard permit condition #12 (WP6.1) requires further examination. In certain situations it is necessary to include this condition in the permit when the control efficiency is questionable. Please continue to check with your unit supervisor before including this condition in a permit. The condition currently states:

> This source shall be equipped with _____ capable of reducing uncontrolled emissions of _____ by at least _____%. Operating parameters of the control equipment shall be identified prior to final approval of this permit. The identified operating parameters will replace the control efficiency requirement on the final permit. (Reference: Regulation 3B.IV.E.)

As more and more final approval permits are processed, the Construction Permit Unit should adopt common operating parameter requirements for simple, common control devices. If common requirements are not implemented, similar sources could end up with different operating parameters for the same type of control device. By using common parameters, final approval processing can be expedited and provide equitable treatment for sources.

Several points should be made about the operating parameters listed below. First, for true minor sources both the initial approval version and the final approval version of standard condition #12 will normally be used. For synthetic minor sources normally only the initial approval version will be used, since the final approval permit should contain a separate permit condition stating that the operating and maintenance plan approved by the Division shall be followed. It would be redundant to specify control device operating parameters in a synthetic minor permit condition when the same information will be included in the operating and maintenance (compliance) plan. Second, the intent here is to provide common operating parameters for common control devices only. Engineers should work with enforcement staff to develop appropriate operating parameters for control devices which are not referenced here. Third, these operating parameters should also be applied to sources requiring one of the following control devices to satisfy RACT. RACT sources using control devices do not necessarily require special treatment by adding operating parameters beyond those proposed here, but parameters can be added as deemed necessary.

A list of common control devices and their proposed corresponding operating parameters are listed below. This data was compiled by Scott Mason and Aaron Frame.

CONTROL DEVICE	OPERATING PARAMETERS	FREQUENCY
All cyclones	Manufacturer's recommended pressure drop across the cyclone	Weekly record keeping

Operating parameters for common control devices

Shaker baghouses	Manufacturer's recommended pressure drop across the baghouse	Weekly record keeping
Jetpulse baghouses	1. Manufacturer's recommended pressure drop across the baghouse 2. Manufacturer's recommended jetpulse header pressure	Weekly record keeping for both parameters
Wet scrubbers for particulate	1. Manufacturer's recommended pressure drop across the scrubber 2. Manufacturer's recommended spray nozzle header pressure	Weekly record keeping for both parameters
Wet scrubbers for acids/bases	1. Manufacturer's recommended pressure drop across the scrubber 2. Manufacturer's recommended spray nozzle header pressure 3. Scrubbing liquor pH shall be: $7.0 < pH < 9.0$ (for acids) $5.0 < pH < 7.0$ (for bases)	Weekly record keeping for all parameters
Engines with any catalytic controls (selective or non-selective)	1. Manufacturer's recommended replacement schedule for the O_2 sensor, based on cumulative hours of operation 2. Manufacturer's recommended cleaning and regeneration schedule(s) for the catalyst, based on cumulative hours of operation	Record keeping of hours of operation (A frequency is not specified here since many engines are unmanned.)

An example of the same standard condition in an initial approval and a final approval permit are as follows:

Initial approval version:

> This source shall be equipped with a jetpulse baghouse capable of reducing uncontrolled emissions of particulate matter by at least 99.0%. Operating parameters of the control equipment shall be identified prior to final approval of this permit. The identified operating parameters will replace the control efficiency requirement on the final permit. (Reference: Regulation 3B.IV.E.)

Final approval version:

> This source shall be equipped with a jetpulse baghouse. The pressure drop across the baghouse shall read 3-5 inches water column. The jetpulse header pressure shall read 90-100 psig. Records of the pressure drop across the baghouse and jetpulse header pressure shall be maintained weekly by the applicant and made available to the Division for inspection upon request. (Reference: Regulation 3B.IV.E.)