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OFFICE OF
AIR, NOISE AND RADIATION

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MEMORANDUM

SUBJECT: Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions

FROM: Kathleen M. Bennett
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TO: Regional Administrators, Regions I-X

This memorandum is in response to a request for a clarification of EPA's policy relating to excess emissions during startup, shutdown, maintenance, and malfunctions.

Excess emission provisions for startup, shutdown, maintenance, and malfunctions were often included as part of the original SIPs approved in 1971 and 1972. Because the Agency was inundated with proposed SIPs and had limited experience in processing them, not enough attention was given to the adequacy, enforceability, and consistency of these provisions. Consequently, many SIPs were approved with broad and loosely-defined provisions to control excess emissions.

In 1978, EPA adopted an excess emissions policy after many, less effective attempts to rectify problems that existed with these provisions. This policy disallowed automatic exemptions by defining all periods of excess emissions as violations of the applicable standard. States can, of course, consider any demonstration by the source that the excess emissions were due to an unavoidable occurrence in determining whether any enforcement action is required.

The rationale for establishing these emissions as violations, as opposed to granting automatic exemptions, is that SIPs are ambient-based standards and any emissions above the allowable may cause or contribute to violations of the national ambient air quality standards. Without clear definition and limitations, these automatic exemption provisions could effectively shield excess emissions arising from poor operation and maintenance or design, thus precluding attainment. Additionally, by establishing an enforcement discretion approach and by requiring the source to demonstrate the existence of an unavoidable malfunction on the source, good maintenance procedures are indirectly encouraged.

Attached is a document stating EPA's present policy on excess emissions. This document basically reiterates the earlier policy, with some refinement of the policy regarding excess emissions during periods of scheduled maintenance.

A question has also been raised as to what extent operating permits can be used to address excess emissions in cases where the SIP is silent on this issue or where the SIP is deficient. Where the SIP is silent on excess emissions, the operating permit may contain excess emission provisions which should be consistent with the attached policy. Where the SIP is deficient, the SIP should be made to conform to the present policy. Approval of the operating permit as part of the SIP would accomplish that result.

If you have any questions concerning this policy, please contact Ed Reich at (382-2807).

Attachment

Attachment

POLICY ON EXCESS EMISSIONS DURING START-UP, SHUTDOWN, MAINTENANCE, AND MALFUNCTIONS.

Several of the existing State implementation plans (SIPs) provide for an automatic emission limitation exemption during periods of excess emission due to start-up, shutdown, maintenance, or malfunction.* Generally, EPA agrees that the imposition of a penalty for sudden and unavoidable malfunctions caused by circumstances entirely beyond the control of the owner and/or operator is not appropriate. However, any activity which can be foreseen and avoided, or planned is not within the definition of a sudden and unavoidable breakdown. Since the SIPs must provide for attainment and maintenance of the national ambient air quality standards, SIP provisions on malfunctions must be narrowly drawn. SIPs may, of course, omit any provision on malfunctions. [For more specific guidance on malfunction provisions for RACT SIPs, see the April 1978 workshop manual for preparing nonattainment plans.]

I. AUTOMATIC EXEMPTION APPROACH

If a SIP contains a malfunction provision, it cannot be the type that provides for automatic exemption where a malfunction is alleged by a source. Automatic exemptions might aggravate air quality so as not to provide for attainment of the ambient air quality standards. Additional grounds for disapproving a SIP that includes the automatic exemption approach are discussed in more detail at 42 FR 58171 (November 8, 1977) and 42 FR 21372 (April 27, 1977). As a result, EPA cannot approve any SIP revision that provides automatic exemptions for malfunctions.

II. ENFORCEMENT DISCRETION APPROACH--SIP EMISSION LIMITATION ADEQUATE TO ATTAIN AMBIENT STANDARDS

EPA can approve SIP revisions which incorporate the "enforcement discretion approach". Such an approach can require the source to demonstrate to the appropriate State agency that the excess emissions, though constituting a violation, were due to an unavoidable malfunction. Any malfunction provision must provide for the commencement of a proceeding to notify the source of its violation and to determine whether enforcement action should be undertaken for any period of excess emissions. In determining whether an enforcement action is appropriate, satisfaction of the following criteria should be considered:

* The term "excess emission" means an air emission rate which exceeds any applicable emission limitation, and "malfunction" means a sudden and unavoidable breakdown of process or control equipment.

1. To the maximum extent practicable the air pollution control equipment, process equipment, or processes were maintained and operated in a manner consistent with good practice for minimizing emissions;

2. Repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;

3. The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

4. All possible steps were taken to minimize the impact of the excess emissions on ambient air quality; and

5. The excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

III. EXCESS EMISSIONS DURING START-UP, SHUTDOWN, AND MAINTENANCE

Any activity or event which can be foreseen and avoided, or planned, falls outside of the definition of sudden and unavoidable breakdown of equipment. For example, a sudden breakdown which could have been avoided by better operation and maintenance practices is not a malfunction. In such cases, the control agency must enforce for violations of the emission limitation. Other such common events are start-up and shutdown of equipment, and scheduled maintenance.

Start-up and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the design and implementation of the operating procedure for the process and control equipment. Accordingly, it is reasonable to expect that careful planning will eliminate violations of emission limitations during such periods.

If excess emissions occur during routine start-up and shutdown of such equipment, they will be considered as having resulted from a malfunction only if the source can demonstrate that such emissions were actually caused by a sudden and unforeseeable breakdown in the equipment.

Similarly, scheduled maintenance is a predictable event which can be scheduled at the discretion of the operator, and which can therefore be made to coincide with maintenance on

production equipment, or other source shutdowns. Consequently, excess emissions during periods of scheduled maintenance should be treated as a violation unless a source can demonstrate that such emissions could not have been avoided through better scheduling for maintenance or through better operation and maintenance practices.