EPA APPROVES STARTUP, SHUTDOWN, MALFUNCTION RULES

The United States Environmental Protection Agency (EPA) has approved new Michigan Department of Environmental Quality (MDEQ) regulations concerning air emissions during start-ups, shutdowns and malfunctions (SSM). The new rules replace prior regulations that were rescinded in 2002 in response to objections by EPA.

Under the Clean Air Act (CAA), Each state is required to develop a State Implementation Plan (SIP) to ensure that all areas of that state comply with National Ambient Air Quality Standards (NAAQS) and related requirements established by EPA. EPA had objected to MDEQ’s SSM regulations as being inconsistent with EPA regulations and policies under the CCA. In 1998, over objections from MDEQ and industry groups, including the Michigan Manufacturers Association (MMA), EPA rejected the SSM rules for the SIP. EPA determined that any emissions that exceed any emission limit is a violation, regardless of mitigating circumstances, such as an SSM event that occurred despite preventative maintenance. EPA relied on several EPA guidance memoranda from 1982 and 1983 that indicated that SSM emissions should be evaluated on a case-by-case basis and EPA and state agencies should reserve the power to impose fines and penalties on sources that cause excess emissions during SSM events.

MDEQ and MMA filed separate petitions challenging EPA’s decision in the United States Court of Appeals for the Sixth Circuit, arguing that the CAA does not require all excess emissions during SSM events to be treated as violations and that the CAA provides states with discretion to adopt regulations such as the SSM Rules as part each state’s strategy to achieve the air quality goals of the CAA.
The United States Court of Appeals for the Sixth Circuit, which has jurisdiction in Michigan, rejected MDEQ’s and MMA’s challenges and upheld EPA’s decision to reject the SSM rules for Michigan’s SIP. As a result, MDEQ was forced to rescind its SSM rules and to develop new SSM rules, which were adopted in 2002 and submitted to EPA on September 23, 2002.

New Rule 915 states that, when determining whether MDEQ will pursue enforcement action for emission violations, MDEQ will consider evidence that the violations resulted from a malfunction, start-up or shutdown. If MDEQ determines that the emission violations did result from a malfunction, start-up or shutdown, MDEQ may use enforcement discretion when resolving the violation.

Rule 915 also identifies various categories of evidence that may be submitted to demonstrate that an emission violation resulted from a malfunction, including evidence to demonstrate that:

- The excess emissions resulted from a sudden and unavoidable breakdown of equipment.
- The equipment had been maintained and operated in a manner consistent with good practice for minimizing emissions.
- The excess emissions, if caused by a bypass of control equipment, were unavoidable.
- Repairs were made in an expeditious manner.
- The amount and duration of excess emissions were minimized to the maximum extent practicable.
- All reasonably possible steps were taken to minimize the impact of the excess emission on ambient air quality.
- The excess emissions resulting from a malfunction were not part of a recurring pattern indicative of inadequate design, operation or maintenance.
- The malfunction was an infrequent event and not reasonably preventable.
• All emission monitoring systems were kept in operation, if possible.

• The facility has a malfunction abatement plan consistent with MDEQ Air Quality Division Rule 911(2).

• If the excess emission presented an imminent threat to human health, safety or the environment, the facility reported the emissions to MDEQ as soon as possible. All other excess emission must be reported as provided in MDEQ Air Quality Division Rule 912 or as specified in a permit.

• The actions during the period of excess emissions were documented by contemporaneous operating logs or other relevant evidence.

• An information submitted to MDEQ under this regulation is properly certified.

For start-ups and shutdowns, facilities may submit the same type of information as discussed above for malfunctions, as applicable, and may also submit evidence demonstrating that:

• The periods of excess emissions during start-up or shutdown were short and infrequent and could not have been prevented through careful planning and design.

• The periods of excess emissions during start-up or shutdown were not part of a recurring pattern indicative of inadequate design, operation or maintenance.

• The facility has a preventive maintenance plan consistent with MDEQ Air Quality Division Rule 911(2)(a).

For emission units subject to regulations issued by EPA, the start-up, shutdown or malfunction provisions of the applicable EPA requirements shall apply.

Rule 915 does not restrict MDEQ from seeking a court order to stop excess emissions or otherwise enforcing the Air Quality Division regulations.

In addition, Rule 916 provides an “affirmative defense” for emission violations that occur during start-up or shutdown only. This “affirmative defense” may be used to defeat an MDEQ enforcement actions for fines and penalties (but not one seeking only a court order to stop excess emissions) provided that all of the following conditions are satisfied:

• The periods of excess emissions were short and infrequent and could not have been prevented through careful planning and design.
• The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance.

• If excess emissions are caused by a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury or severe property damage.

• The facility was operated at all times in a manner consistent with good practice for minimizing emissions.

• The frequency and duration of operating in start-up or shutdown mode were minimized to the maximum extent practicable.

• All reasonably possible steps were taken to minimize the impact of excess emissions on ambient air quality.

• All emission monitoring systems were kept in operation, if possible.

• The actions during the period of excess emissions were documented by contemporaneous operating logs or other relevant evidence.

• Any excess emissions presenting an imminent and substantial endangerment to human health, safety or the environment were reported to MDEQ as soon as possible and all other excess emissions were reported as provided in Rule 912 or a permit. Upon the request of MDEQ, a full written report stating the causes (if known), the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence of the excess emissions shall be provided.

• Any information submitted to MDEQ under this rule must be properly certified.

This affirmative defense does not apply if the emissions from a single stationary source cause an exceedance of a NAAQS or a Prevention of Significant Deterioration increment.

If excess emissions during a routine start-up or shutdown were primarily caused by a malfunction, that event shall be treated as a malfunction under Air Quality Division Rule 915. Air Quality Division Rule 916 does not limit the authority of MDEQ to seek a court order to stop excess emissions or to otherwise enforce the Air Quality Division regulations.

EPA has determined that the new SSM rules are consistent with CAA requirements and, therefore, EPA has proposed to approve these rules for Michigan’s SIP. EPA’s decision was
announced as a “direct final” rulemaking, which means that the approval of the SSM rules will automatically take effect on April 26, 2003 unless adverse written comments were received by EPA by March 26, 2003. If adverse comments were received, EPA will review and consider them before making a final decision. 60 Fed. Reg. 8550 (Feb. 24, 2003).

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