This engineering guide describes the process district offices and local air agencies should use when a company requests to temporarily operate without controls.

Question

How should district offices and local air authorities evaluate requests from companies to temporarily operate without controls due to disabled air pollution control equipment?

Answer

Situation

An accident occurs at an industrial facility and the air pollution source remains operational; however, the air pollution control equipment becomes disabled and is not able to function. The air pollution control device is required for the source to operate in compliance with the applicable emission requirements. The facility has provided the notification of the accident in accordance OAC 3745-15-06 (malfunction of equipment). In most cases, it is expected that the facility would cease operations of the source.

The company reports that without continued operation, there will be significant damage to the remaining equipment at the plant or that continued operation is needed for the health and welfare of a certain community (i.e. hospital boilers). What are steps that should be followed to determine if the plant should be allowed to operate?

Note: If the facility continues to operate due to “contractual obligations”, the same procedure can be followed except that the DAPC Enforcement Coordinator should be contacted to determine the enforcement steps to be taken in response to the continued violation.

Step 1 – Elevation Policy Review/Notification to DAPC

The first action of the district office or local air agency is to review the incident with respect to the Ohio EPA Elevation Policy.” Is there a need to contact someone in the Director’s Office as a result of this accident and request? At a minimum, the DAPC Enforcement Coordinator and DAPC Chief should be notified of incident.

Step 2 – Why the company must operate without controls?

The facility must provide a detailed explanation of the need to continue production while the air pollution equipment is repaired or replaced. The explanation should include specific information on equipment damage or adverse effect to the welfare of individuals or details of the economic impact directly or indirectly if the source does not continue production.

1 This Engineering Guide is a repeat of the language found in the February 13, 2019 “Process for Evaluation of Operation of Source Without Controls Guidance” Hodanbosi memo. The memo has been repeated as an Engineering Guide so that it can be posted on the DAPC web site and so it can be easier to find when needed.
Step 3 – What are emissions?
The company needs to provide an estimate of the emissions from the sources. Emission estimates should break out any chemicals of concern. The MSDS should be requested, if that may contain helpful information. The district office or LAA should verify/confirm emission calculations.

Step 4 – What is the company doing to minimize emissions from the sources?
Although the facility is providing documentation on the need to operate, the source(s) without controls should be operating at the lowest level possible to minimize emissions.

Step 5 - What are impact of the emissions?
At this stage, there needs to be a quantitative assessment of whether air quality modeling should be conducted. What are the pounds per hour above allowable? What is the toxicity of the material being emitted? A release of an excess of four or five pounds per hour of toluene, for example, would not need modeling or monitoring.
The modeling should be U.S. EPA AERMOD or other approved screening model. The modeling should include receptors at the fence line and nearby sensitive areas such as residents, schools and hospitals.

Step 6 – Is the impact at an acceptable level?
Once the ambient impact of the source has been determined, the DAPC toxicologist should be consulted to determine if the short-term impact exceeds any health-related standards including from ATSDR, Ohio EPA MAGLC, U.S. EPA IRIS and other state standards. Based on the review by the DAPC toxicologist, any continued emissions should be set at a level to be protective of public health.

Step 6A – Excessive Ambient Impact
If the answer in Step 6 is that there is an ambient impact above acceptable levels, the Legal Office should be contacted to be consulted on next steps. The Legal Office will work with appropriate members of the Director's Office and the district office or local air agency to determine the appropriate next steps.

Step 7– Portable Control Equipment
The company should attempt to find portable control equipment that can accommodate the sources emissions or a natural gas portable boiler to produce steam for the education facility, for example. In some cases, control equipment may not be available in the region. The practicality of being able to transport and install the control equipment within the time the permanent control equipment is down should be a consideration.

Step 8 – Air Quality Monitoring
If the modeling conducted in Step 4 indicates an acceptable concentration, yet high enough concentration to be of concern, the need for ambient air quality monitoring should be evaluated. What are the main chemical compounds in the emissions? Can these emissions be accurately measured? Should Ohio EPA or the company complete the monitoring? A determination should be made on the feasibility of monitoring, frequency of monitoring and locations of monitors. The decision should error on the side of protection of public health, if monitoring is feasible.

The air quality monitoring needs to evaluate emission levels, toxicity, and nearby sources. If there is only one source of the compound, then downwind sampling only may be adequate. If there are other nearby sources of the chemicals of concern, then upwind and downwind monitoring should be considered. The typical sampling would be TO-15 SUMMA canisters with a rush turnaround time of 3 days.
Process for Evaluation of Operation of Source Without Controls Guidance

In the event of criteria pollutant monitoring, the challenges become greater in the siting and operation of a monitor. In most cases, it will not be practical to quickly site a criteria pollutant monitor for short-term operation.

**Step 9 – Agency Approval Letter**

If the agency concurs with the continued operation of the source, an approval letter from the Ohio EPA Director, DAPC Division Chief, or Local Air Agency Director should be developed. The contents of the letter should contain at a minimum:

- The duration of the approval;
- The operating conditions for approval;
- A description of the ambient air quality monitoring including frequency and placement of monitors or canisters;
- A requirement that the company attempt to obtain temporary controls;
- A requirement of a daily report on operations; and
- Any other conditions of approval.

**Step 10 – Visit the Plant**

If possible, make a trip to the facility. Witnessing firsthand the extent of the damage, the progress of the repair, the impact of the emissions (either visible emissions or odors) can provide valuable insight on the impact of the emissions. DAPC district office and local air agency personnel should not visit the site during an emergency response situation unless specifically requested to do so.

**Step 11 – Reports from company**

The facility should be reporting on a daily basis the progress being made to bring the unit back into compliance. The reporting should continue during weekends/holidays as long as the source is operating without the required controls.

**Step 12 – Evaluation of Air Toxics Data**

The analysis of any air quality monitoring that is completed should be expedited and the results should be evaluated promptly by the Ohio EPA toxicologist to determine if public health is being protected.

**Step 13 – Final Malfunction Report**

Once the control equipment has been repaired, there should be a final close out report from the entity that provides all of the information required by the malfunction rule.

**Step 14 – Issuance of Notice of Violation**

The district office or local air agency should evaluate whether the issuance of a Notice of Violation is appropriate. This would be particularly the case where the company is operating to meet production demands.
Step 15 – Review of Final Submitted Material
The district office or local air agency should review the final report against OAC 3745-15-06 to ensure compliance with the malfunction rule requirements.

Step 16 – Deviation Report
Although Ohio EPA may have allowed the source to continue to operate without controls, the facility is still required to report the excess emissions as part of the quarterly deviation report, if the facility is covered by a Title V permit.

Revisions

Contact
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