State of Alaska
Department of Environmental Conservation

Policy and Procedure

Policy

SUBJECT
Construction Phase Air Emissions at Oil Fields

SECTION
Air Quality Division

CHAPTER
Permit Processing

POLICY AND PROCEDURE NUMBER
04.02.104

EFFECTIVE DATE
November 20, 2006

SUPERSEDES
All Previous Editions

APPROVED BY

PURPOSE
Clarify policy direction for air quality management for North Slope oil field related emissions that occur during project construction phase. This policy establishes a procedure by which small construction equipment can be managed through fuel sulfur levels, rather than ambient air quality assessments.

The guidance is presented as an overall policy direction followed by specific questions and direction to clarify the issues and policy decision.

In 2004, the department undertook significant reforms for the new source review program to more closely mimic the federal new source review regulations. The department also decided to manage the air impacts from construction activities through fuel sulfur restrictions rather than explicit pre-permit modeling demonstrations. The department will rely more upon in-field inspections, observation and compliance verification and less upon pre-permit technical reviews, where those reviews are not clearly mandated by federal law or rules and where practices employed by EPA and other states have generally not gone to the level of detail that Alaska has done in recent years.

POLICY

Action: Construction activities are considered “temporary construction activities” if they are completed within 24 months from the date construction begins – see 18 AAC 50.990(107). Temporary construction activities are not required to demonstrate compliance with the air quality increment standards.

Air permits staff should recognize that certain activities do not trigger the onset of the construction phase. Such an example would be an ice road construction that would support further stationary source construction. The ice road does not itself trigger an air permitting requirement nor is it part of the permanent stationary source. Therefore, it would not be considered the onset of the construction phase. While some project specific analysis may be required, construction is generally believed to commence once construction of the permanent facility begins – the facility, or its permanent appurtenances, that contains or relies upon the permitted stationary source(s).

Development drilling is considered part of the stationary source construction. In some situations, early transition to high-line power for tasks like development phase drilling can provide a way to enable drilling to proceed beyond the 24 month construction window since the construction source is replaced by a permitted permanent source. Yet, this particular approach should be examined with respect to
the potential changes in the emission characteristics of the permitted source (electrical generator).

**Applicability:** Do construction phase emission units/activities need to be specifically listed in the permit?

**Action:** The department can provide for air quality management of construction phase units/activities without having the units/activities listed in the permit.

In such cases, the applicant must provide the department an adequate listing of units/activities and their projected operations and associated emissions prior to permit issuance in order for a) the department to concur with any modeling required in order to assure demonstrated compliance with NAAQS, b) enable an on-site department inspector to assess likely compliance with ambient standards via comparison with actual operating units to modeling analyses, and c) enable the company and the department to adequately correlate emissions from operating units during construction phase with any concurrent ambient monitoring that is ongoing at the time of construction. It is appropriate to require the permittee to make updates to the listing for any significant changes for construction phase related operations and to require periodic reports of actual construction phase units. Any such reporting regarding insignificant sized units and units less than 400 bhp equivalent should be lumped in some fashion to avoid individual unit reporting.

**Applicability:** What modeling demonstration is necessary for construction phase emission units?

**Action:** At the discretion of the supervisor for construction permitting, it is appropriate to require a modeling demonstration for construction phase emissions.

The purpose of the modeling would be to assure compliance with NAAQS. An increment demonstration may only be required if there is a regulatory basis for the demonstration (e.g., PSD requirement), and if the construction activities are expected to last more than 24-months per 18 AAC 50.990(107). The modeling request should be designed to examine the potential worst case phase for construction emissions, not all construction phase operations. Furthermore, it is recognized that characterizing small close to the ground emission units/activities, such as those common to earth moving, small electrical generators and heat plants, can be difficult and the modeling results can be questionable. Therefore, applicants who agree to the fuel sulfur limits listed below do not need to include construction-related internal combustion units rated at less than 400 bhp, and construction-related boilers/heaters with a heat input rating of less than 2.8 MMBtu/hr, in their construction phase modeling analysis.

Applicants who wish to rely on fuel sulfur restrictions must agree to use only fuel that meets the following fuel sulfur limits in all diesel-fired construction equipment:

- \( \leq 1000 \text{ parts per million by weight (ppmw)} \) through January 31, 2009; and
- \( \leq 15 \text{ ppmw} \) after January 31, 2009.

Air permits staff may include the above fuel sulfur limits as permit conditions applicable to the entire stationary source. For purposes of this policy, the department will assume that all construction equipment will be refueled from the fuel storage tanks used by the stationary source or brought on-site with a portable oil and gas operation (as defined in 18 AAC 50.990), and that any fuel that comes on-site in the construction equipment fuel tanks is
inconsequential. Permittees can demonstrate compliance with this policy by retaining records related to sulfur content of the fuel delivered to the stationary source. Department staff may request these records in supporting their compliance reviews.

Nothing in this policy prevents the department from conducting its own ambient monitoring adjacent to a construction phase operation.

AUTHORITY

IMPLEMENTATION RESPONSIBILITY
The Division Director and Air Permits Program Manager.