

**ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL GENERAL OPERATING PERMIT**

**CRUSHER GENERAL PERMIT
GENERAL PERMIT 9
STATEMENT OF BASIS**

Qualifying Criteria

This permit is intended for rock crushers (non-metallic mineral processing plants) that are required to have a permit because they are subject to EPA's New Source Performance Standard in 40 C.F.R. 60, Subpart OOO. Rock crushers or associated equipment put into service after August 31, 1983 are subject to 40 C.F.R. 60, Subpart OOO.

The permit includes the requirements from Subpart OOO that apply to crushers known to operate in Alaska. Crushers and associated equipment that capture emissions with mechanically induced draft, and emit them through a stack or vent are subject to additional requirements. But the department has not learned of any such units operating in Alaska. So we have not included the requirements in the permit. Operators of any crushers or associated equipment with mechanically induced draft subject to Subpart OOO would have to get a facility specific permit.

Excluded Facilities

The permit excludes a facility from using the permit if

- The facility has a facility specific limit,
- The facility is subject to certain EPA emission standards,
- The facility is subject to certain state emission standards, or
- Open burning will be done at the facility.

An operating permit, including a general permit, must contain permit conditions to assure compliance with all air quality control requirements [18 AAC 50.350(d) – (f)]. The general permit does not include conditions that would apply to the excluded facilities. However, the facility may operate under more than one general permit as long as all of the requirements that apply to the facility are adequately covered in at least one of the permits.

Standard Permit Conditions

Conditions 1 – 14 are listed in 18 AAC 50.345. That regulation requires the conditions to be in every operating permit, including general operating permits. Conditions 10 – 14 refer to source testing. Crushers are not subject to source testing. These conditions do not apply to crushers.

Crushers

Equipment which is subject to Subpart 000 is equipment at a fixed plant with a cumulative rating of all initial¹ crushers greater than 25 tons per hour; or equipment at a portable plant with greater than 150 tons per hour cumulative ratings. The pieces of equipment affected by the applicable conditions are rock crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations. Only the pieces of equipment installed, reconstructed² or modified after August 31, 1983 are subject to Subpart 000.

Condition 15 contains the applicable limits. It also says to label all NSPS equipment. Some equipment at a single plant typically is subject to the NSPS, while some is not. To assure compliance it is necessary that both operators and department staff be able to tell which is which.

Condition 16 contains the periodic monitoring. Method 9 observations must be done at least every 14 operating days.

Replacement of pieces of equipment that are too old to be subject to Subpart 000 with newer equipment only makes the new equipment subject in certain cases –

- Replacing the entire line, or
- Increasing the capacity of the piece of equipment.

Condition 17 explains when the new equipment would become subject, and what must be done to notify EPA and the department.

Condition 18 includes a requirement that applies to new equipment that becomes subject to Subpart 000. Because there is not an NSPS particulate matter standard that applies to the equipment that will operate under this permit, an initial performance test under 40 C.F.R. 60.8 is not required. However initial opacity observations, as described in 40 C.F.R. 60.11 are required for newly subject equipment. Condition 18 includes that requirement.

18 AAC 50.350(d) requires that conditions to implement the emission standards of 18 AAC 50.050-070 be put into an operating permit if the facility fits in certain classifications. Those classifications are major emitting facilities under the operating permit program, and ambient air facilities or major emitting facilities under the construction permit program. A rock crushing operation that needs an operating permit only because it is subject to 40 C.F.R. 60, Subpart 000 does not fit into any of those classifications. Therefore the permit does not contain the department's general emission standards. Some equipment may be subject to those emission standards. But the permit

¹ Initial crushers are defined as crushers that process some rock that has not been previously crushed.

² Reconstructed is defined in 40 CFR 60.673.

does not list that equipment or require periodic monitoring for compliance with those standards.

Fuel Storage Tanks

If liquid fuel storage tanks at a crushing operation are stationary, were installed after July 1984, and are larger than 10,567 gallons they are subject to an NSPS record keeping requirement. [40CFR60.116b(a) & (b), Subpart Kb] Condition 19 contains that requirement. It does not contain any of the emission control requirements of Subpart Kb because it is unlikely that a crushing operation would burn fuel volatile enough to trigger those requirements. Instead a facility that would burn the more volatile fuel is excluded from using this permit if stationary storage tanks are large enough to be subject to Subpart Kb and no other general permit is obtained that contains the Kb requirements.

Facility Wide Requirements

Fugitive Dust

18 AAC 50.045(d) requires an operator to take reasonable precautions to prevent fugitive dust when handling bulk materials. 18 AAC 50.350(f)(3) says that the permit will contain conditions necessary to implement requirements of 18 AAC 50. Condition 20 applies that regulation crushing operations.

Crushing operations have a considerable potential for generating fugitive dust. The department has received complaints about fugitive dust emitted from crushing operations under the first round general permits. So the department has changed the conditions for implementing 50.045(d) in the proposed renewal permit.

Condition 20a states the requirement of 50.045(d).

Condition 20b lists examples of precautions which would be reasonable for this activity, to be used as necessary.

To address site specific differences, the application must have a dust control plan attached if the operation will be within 2000 feet of a residence or other occupied structure. If the operation is relocated to a place within that distance of an occupied structure, the permittee must attach a revised plan with the notification of relocation. The plan must be specific to any location named in the application or notification. The condition also says that the applicant must submit or revise a plan if requested by the department. Condition 20c requires the permittee to comply with a required dust control plan.

To satisfy this condition the plan must say what the operator will do and under what circumstances, rather than just listing actions that can be taken. Otherwise it would not be possible to tell whether the operator is following the plan or not.

Air Pollution Prohibited

Conditions 21 and 22 incorporate the regulation prohibiting air pollution of 18 AAC 50.110, and the corresponding standard condition for monitoring compliance that is adopted in 18 AAC 50.346.

Coastal Zone Management

Condition 23 adds specific fuel storage requirements of the coastal zone program. AS 46.14.120(d) requires permits to include and comply with all state requirements.

Fees

Condition 24 more adequately meets the requirements of 18 AAC 50 for this facility type than the standard condition for fees adopted under 18 AAC 50.346. The cost of a general permit (permit administration fees) is a flat fee of \$300. But permit administration fees are also assessed for department staff time spent on the facility during the life of the permit. This typically includes such work as reviewing reports and inspections.

Annual emission fees are not assessed for rock crushers because quantifiable emissions of any air contaminant are expected to be less than 10 tons per year for any rock crushing operation.

Location

Because of public complaints during the last 5 years, the department did modeling to predict the impacts of rock crushers on ambient air. Emission sources modeled were stationary diesel engines (as horizontal point sources), and crushing, screening, and conveying aggregate and road dust from loaders (as volume sources).

All emission rates were based on EPA's AP-42 emissions factors.

The modeling results were used to establish the proximity to inhabited structures for which a dust control plan is required. They are also used to establish the minimum distances that a crushing operation must keep from residences if they are operating under this permit. [Conditions 25 a and b]

This location requirement is based on the best information available to the department. It does not guarantee that a rock crushing operation will not violate ambient standards or cause violations the prohibition of air pollution. Therefore, the condition also advises the

permittee that if the operation results in complaints, the complaints will be investigated, and lists some of the possible outcomes.

See Attachment 1 to this Statement of Basis for more information on the modeling performed.

Monitoring, Record Keeping, and Reporting

Table 1 lists the monitoring, record keeping, and reporting requirements (MRR) that are included in the permit to satisfy 18 AAC 50.350(d)(4) and (f)(3), which say that the permit must include terms including monitoring, record keeping, and reporting necessary to ensure compliance with the requirements that apply to the facility.

Some of the MRR requirements listed include citations of other permit conditions where the requirements are more completely described. Others do not appear elsewhere and are established in Table 1.

The permittee must also report all excess emissions and permit deviations according to Condition 26

Excess Emissions and Permit Deviations

The permit implements the standard conditions for excess emissions and permit deviation reporting, with the changes noted, as well as for air pollution prohibited.

The adopted standard condition says that the permit may use a different condition if there is a facility specific reason that the alternate condition will more adequately meet the requirements of 18 AAC 50. The standard language says that for permit deviations, the permittee must use the form provided in Attachment 2 of the permit. For excess emissions, the permittee also has the option of using the department's on-line form. The difference is because, at the time of adoption of the standard condition, there was no on line form for other permit deviations. Condition 26 allows the permittee the option of using an on-line form if the department develops one during the life of the permit. This more adequately satisfies 18 AAC 50 because the underlying statute directs the department to issue permits in a way that controls costs. The same information would be provided either way.

The general permit condition also directs the permittee to report within two days if there is a breakdown in an air pollution control device, and not to operate the plant after the breakdown until repairs are made. This source type has a potential to cause violations of ambient standards or the prohibition of air pollution if operated without properly functioning air pollution control equipment.

Semiannual Facility Operating Report

The operating report (Condition 27) must include the following compliance information:

- Whether [and how] there were deviations from a required dust control plan;
- Visible emission observation forms;
- Summary of deviations;
- Summary of complaints and responses.

Each of these will help the department understand the compliance status of the facility. 18 AAC 50.350(i)(5) requires reports on required monitoring at least every six months, and also calls for reporting on deviations from permit conditions.