



Request for Coverage under the General Air Quality Permit for New or Modified Minor Source Stone Quarrying, Crushing, and Screening Facilities in Indian Country

Technical Support Document

Permittee: Fisher Sand & Gravel - New Mexico, Inc.
30A Frontage Road East
Placitas, New Mexico 87043

Project Name: Grey Mesa Gravel Pit

Location: Grey Mesa Gravel Pit, located approximately 2.5 miles southwest of Newcomb in San Juan County, New Mexico, on the Navajo Nation Indian Reservation (described in Appendices 1-2 of the 2009 Environmental Assessment included in Request for Coverage)

Source Contact: Brian Gambrel, Fisher Sand & Gravel, (505) 867-2600, bgambrel@fisherind.com

Date: November 5, 2015

Facility ID#: 00005

Application #: 2015-001-GP

Background

The Clean Air Act (CAA) provides EPA with broad authority to protect air resources throughout the nation, including air resources in Indian Country. Unlike States, Indian Tribes are not required to develop CAA new source review (NSR) permitting programs. See, e.g., Indian Tribes: Air Quality Planning and Management, 63 Fed. Reg. 7253 (Feb. 12, 1998) (also known as the Tribal Authority Rule). In the absence of an adequately implemented EPA-approved NSR program on the Navajo Nation, EPA has the authority to implement a Federal Implementation Plan (FIP) in order to protect tribal air resources from impacts due to the construction of new or modified stationary sources of air pollutants. In 2011, EPA finalized the Tribal NSR Rule, codified at 40 CFR Part 49, as part of a FIP under the CAA for Indian Country. 76 Fed. Reg. 38748 (July 1, 2011). Among other requirements, the Tribal NSR Rule set forth procedures and terms under which the Agency would administer a minor NSR permitting program in Indian Country.

As part of the Tribal NSR Rule, EPA adopted the option of developing general permits for certain categories of minor sources to which the Tribal NSR Rule would apply. The purpose of a general permit is to provide for the protection of air quality while simplifying the permit issuance process for similar facilities in order to minimize the burden on the reviewing authority and the regulated sources. EPA finalized the General Air Quality Permit for New or Modified Minor Source Stone Quarrying, Crushing, and Screening Facilities in Indian Country (SQCS General Permit) effective June 1, 2015 (80 Fed. Reg.

25068 (May 1, 2015)). New and modified minor sources that are true minor sources may apply for coverage under the SQCS General Permit if their potential to emit for new, modified, and existing units is below major source thresholds and the source can meet the throughput limits and other terms and conditions set forth in the General Permit. Sources seeking coverage under this General Permit must also demonstrate that they meet certain additional eligibility criteria.

Request for Coverage under SQCS General Permit

On June 8, 2015, EPA Region 9 received an initial Request for Coverage under the SQCS General Permit from Fisher Sand & Gravel – Mew Mexico, Inc. (FSG) for the construction and operation of the proposed Grey Mesa Gravel Pit. FSG submitted an updated and revised Request for Coverage under the SQCS General Permit on July 6, 2015 that replaced the June 2015 request in its entirety. The project for which SQCS General Permit coverage is sought is the construction and operation of a stone quarrying, crushing, and screening facility at the abandoned Grey Mesa Gravel Pit, which will entail construction of new equipment, renewal and expansion of operations at the existing gravel pit, and upgrading an existing access road (the Project). On July 6, 2015, EPA sent a letter to FSG indicating that additional information was needed for EPA to determine the Project's eligibility for SQCS General Permit coverage under the listed species and historic properties eligibility criteria. In response, FSG sent a second updated and revised Request for Coverage under the SQCS General Permit on July 14, 2015, which replaced the July 6, 2015 Request for Coverage in its entirety. The July 14, 2015 Request for Coverage requested to change the listed species criterion under which the Project would be considered eligible for SQCS General Permit coverage, as well as providing additional information requested by EPA pertaining to eligibility under the historic properties eligibility criterion.

At EPA's request, FSG submitted Addenda to its July 14, 2015 Request for Coverage submittal. FSG submitted an Addendum to the Request for Coverage dated August 19, 2015 that provided additional information and commitments pertaining to the protection of cultural resources for the Project. In addition, on October 5, 2015 and October 16, 2015, EPA received from FSG additional Addenda to the Request for Coverage, which provided further confirmation and clarification concerning the project descriptions and environmental mitigation commitments included in attachments to the July 14, 2015 Request for Coverage, as well as clarification concerning the duration of FSG's operations of the Project and its use of engines at the Grey Mesa Gravel Pit site. Because the July 14, 2015 Request for Coverage replaced the submittals from June 8, 2015 and July 6, 2015 in their entirety, we consider the July 14, 2015 Request for Coverage and the Addenda thereto dated August 19, 2015, October 15, 2015 and October 19, 2015 (and all attachments to these four submittals) to constitute the applicable Request for Coverage for purposes of our formal review and determination of eligibility for SQCS General Permit coverage for the Project. Accordingly, we refer hereinafter to the July 14, 2015 Request for Coverage submittal and all of the Addenda to that request (and all attachments to these four submittals), collectively, as the "Request for Coverage". FSG is considered the "Applicant" and the "Permittee" for the Project. This Technical Support Document (TSD) describes our analysis of the Applicant's Request for Coverage for the Project and our determinations concerning this request.

The Project will be located on approximately 89 acres of Navajo tribal trust land within the Navajo Nation Indian Reservation, in San Juan County, New Mexico. The parcel to be used as the gravel pit will not exceed 83.73 acres. In addition, a 2-mile long (4.85-acre area) access road from U.S. Route 491, described in the 2009 Environmental Assessment and Appendices thereto that were included in the Request for Coverage, will be upgraded. The Navajo Nation has leased the property on which the Grey Mesa Gravel Pit stone quarrying, crushing, and screening operations will be conducted to Recon Oil Co. (Recon). FSG has a contract with Recon, and will be the entity performing the day-to-day operations for the Project.

The geographic area where the Project will be located is designated attainment/unclassifiable under the CAA for all National Ambient Air Quality Standards (NAAQS) pollutants.

Approval of Request for General Permit Coverage

EPA has carefully reviewed the Request for Coverage, and other relevant information, to determine whether the Project meets all of the criteria to qualify it to apply for coverage under this General Permit. Based on our review of, and in reliance on, all of the information and representations provided in the Request for Coverage, EPA has determined that the Project meets all such criteria and is eligible for coverage under the SQCS General Permit, and is approving the Request for Coverage for the Project. EPA's review with respect to some of these criteria is discussed in more detail below in this TSD.

EPA's Approval of Request for Coverage for the Project is based in part on representations by FSG in the Request for Coverage that the engines powering the equipment at the Project are nonroad (mobile) engines that will operate at the site for a period of less than one year. These engines are the only engines powering the equipment at the site, and the Request for Coverage represents that the Project will have a total duration of less than one year. We note that if such engines and/or replacement engines intended to perform the same or a similar function are intended to be utilized for stone quarrying, crushing, and/or screening operations at the Grey Mesa Gravel Pit for a period of at least one calendar year (or for a shorter time, if operations are conducted on a seasonal basis for consecutive seasons), or are actually utilized for this length of time, the engines would be considered stationary sources and subject to further requirements under the SQCS General Permit, and the Project would not be eligible for coverage based on the current Request for Coverage, which does not indicate that stationary engines will be utilized for the Project. Thus, to conduct stone quarrying, crushing, and screening operations at the Grey Mesa Gravel Pit for a longer period would require an additional request for coverage and approval under the SQCS General Permit and compliance with this General Permit's requirements for stationary engines, or, alternatively, approval under an individual permit issued pursuant to the Tribal NSR program or other applicable NSR program implemented by EPA depending on the magnitude of the source's potential emissions.

Equipment Description

Table 1. List of Affected Emission Units Covered by this
Approval of Request for General Permit Coverage

ID #	Description of Affected Emission Units	Control Technology	Date of Manufacture
1	Oversize Feeder; Fisher GSS 48X53; 700 tons/hour	Wet Suppression	2006
2	Jaw Crusher; Pioneer 2854; 300 tons/hour	Wet Suppression	1996
3	Cone Crusher; Spokane 82DG; 300 tons/hour	Wet Suppression	1981
4	Deck Screen; AC 500; 500 tons/hour	Wet Suppression	1994
5	Deck Screen; Terex/Cedarapids 3620; 500 tons/hour	Wet Suppression	1999
6	Cone Crusher; Torgerson HIS; 700 tons/hour	Wet Suppression	1994
7	Cone Crusher; JCI 1400RA; 300 tons/hour	Wet Suppression	1999
8	Deck Screen; JCI 3620; 500 tons/hour	Wet Suppression	New
9	Deck Screen; Fisher GSS; 500 tons/hour	Wet Suppression	New
11-19	Conveyors; 175 to 700 tons/hour	Enclosed Chute	Various
20-31	Conveyors; 175 to 700 tons/hour	Enclosed Chute	Various
TK-1	Diesel Tank; 10,000 gallons, 0.022psia @ 100°F	N/A	1992
TK-3	Diesel/gasoline tank; 2,000 gallons, 0.022psia @ 100°F	N/A	1992

The following equipment for the Project was also identified in the Request for Coverage.

Table 2. Other Equipment

ID #	Description of Other Equipment	Make/Model	Date of Manufacture
10	Electric Air Separator; 75 horsepower	Fisher GSS SNO4	1998
32	Portable Generator Engine; 400 horsepower ¹	Caterpillar 3406	1999
33	Portable Generator Engine; 650 horsepower ¹	Volvo/IR TAD1361GE/2160043289	2001
34	Portable Generator Engine; 510 horsepower ¹	Cummins 37173653	1996
TK-2	Water tank; 10,000 gallons	N/A	1992

¹ – Based on information provided in the Request for Coverage, Equipment Units 32, 33, and 34 are exempt from the requirements for stationary engines in the SQCS General Permit because they will remain at the Grey Mesa Gravel Pit for less than 12 consecutive months from the date the source commences operation and will not be replaced by engines performing the same or similar function. Per 40 CFR 49.153(c)(1), the Federal Minor New Source Review Program in Indian Country does not apply to these nonroad (mobile) engines.

Eligibility Criteria

Based upon our review of the Request for Coverage, we have determined the Project qualifies for the SQCS General Permit because it meets the following criteria:

- The Project is for a minor source stone quarrying, crushing, and screening facility, see below.
- The Project only processes non-metallic materials (*i.e.*, sand, gravel, rock, or stone)
- The Project is located in an attainment area for ozone, and diesel fuel use for all affected units will be less than 24,200 gallons per calendar month. Note: The portable engines in Table 2 are not subject to this limit, as discussed elsewhere in this TSD.
- The Project will process less than 1,100,000 tons or raw material throughput per month based on a 12-month rolling average.
- As discussed further below, the Applicant has met the eligibility criteria related to listed species and historic properties.

Potential to Emit (in tons/year)

Potential to emit (PTE) means the maximum capacity of a stationary source to emit an air pollutant under its physical and operational design. The SQCS General Permit includes enforceable physical or operational limitations on the maximum capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation and/or on the type or amount of material combusted, stored, or processed. PTE is meant to be a worst case emissions calculation and is used in many cases to determine the applicability of federal CAA requirements. Actual emissions are typically lower than PTE. Our evaluation of whether the Project qualifies for the SQCS General Permit included consideration of the limitations on PTE in the SQCS General Permit.

The Tribal NSR Rule establishes specific PTE thresholds for new or modified stationary sources that trigger the requirement to obtain a preconstruction permit under the Tribal Minor NSR program. See Table 3.

Table 3. Tribal Minor NSR Permitting Thresholds (tons per year)

Pollutant	Nonattainment Areas	Attainment Areas
CO	5	10
NOx	5	10
SO2	5	10
VOC	2	5
PM	5	10
PM10	1	5
PM2.5	0.6	3
Lead	0.1	0.1
Fluorides	NA	1
Sulfuric acid mist	NA	2
Hydrogen sulfide	NA	2
Total reduced sulfur	NA	2
Reduced sulfur compounds	NA	2

Projects at new or modified sources that must obtain Tribal Minor NSR program preconstruction permits based on PTE at or above these Tribal minor NSR thresholds may qualify for coverage under a Tribal Minor NSR general permit in lieu of obtaining a site-specific permit. In order to qualify for the SQCS General Permit, the new or modified source must have a PTE below the major NSR source thresholds, and meet criteria related to the size of equipment and maximum production rates at the source and other eligibility criteria. If a new or modified source does not meet the specified criteria, the source does not qualify for coverage under the SQCS General Permit and must apply for a site-specific Tribal NSR permit or other applicable NSR permit.

In this case, FSG determined that the Project triggered the preconstruction permit requirements under the Tribal Minor NSR Rule and is seeking to obtain coverage under the SQCS General Permit in lieu of obtaining a site-specific permit. As such, we have taken into account the enforceable limitations under the SQCS General Permit in determining the PTE for the Project, whether it is a major source, and whether it is eligible for the SQCS General Permit.

The Project's PTE does not exceed the applicable CAA NSR major source thresholds in attainment areas (250 tons per year for each pollutant). See Table 4. Accordingly, the Project's potential emissions are at a level that potentially qualifies it for coverage under the SQCS General Permit.

Table 4. Facility-wide Potential to Emit (PTE) Summary (includes controls)

Unit	Pollutant (tons/year)						
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC
1 – 31	25.94	14.11	0.39	-	-	-	
32 – 34 ¹	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Storage Piles	0.25	0.12	0.02	-	-	-	-
Total	26.19	14.23	0.41	0.00	0.00	0.00	0.00

¹ – Equipment Units 32, 33, and 34 are exempt from the requirements for stationary engines in the SQCS General Permit because they will remain at the Grey Mesa Gravel Pit for less than 12 consecutive months from the date the source commences operation and will not be replaced by engines performing the same or similar function. Per 40 CFR 49.153(c)(1), the Federal Minor New Source Review Program in Indian Country does not apply to these nonroad (mobile) sources.

Listed Species-Related Eligibility Criteria

EPA developed eligibility criteria related to species that are listed as endangered or threatened under the federal Endangered Species Act that applicants must satisfy to qualify for coverage under the SQCS General Permit. Appendix A to the Request for Coverage form for the SQCS General Permit provides detailed screening procedures for applicants to follow to assess the potential impacts of their sources on federally-listed species and their critical habitat. To be eligible for coverage under the General Permit, sources must demonstrate that they have satisfactorily completed the screening procedures and that they meet one of the species-related eligibility criteria, provide sufficient documentation supporting the criterion selected, and obtain confirmation from EPA that they have done so.

The Request for Coverage states that the Project meets Criterion A of Appendix A with respect to listed species protection. The Request for Coverage indicates that potential impacts from the Project to listed species and their habitat were first assessed in 2009, with an updated biological evaluation prepared in May 2015. The Request for Coverage attached the assessments and related documentation pertaining to the Project, which were prepared for the Bureau of Indian Affairs and/or Recon. Based on habitat requirements and an analysis of the available habitat within the boundaries of the proposed Project and the action area, the 2015 biological evaluation concludes that no listed species are expected to occur in the area or to be impacted by the proposed Project. Additional information provided by the New Mexico Ecological Services Field Office of the U.S. Fish and Wildlife Service to EPA further demonstrates that no critical habitat for any federally-listed species occurs in the Project area. The documentation in our record demonstrates that no federally-listed threatened or endangered or designated critical habitat of such species are likely to occur within or adjacent to the action area of the Project. After review and consideration of this information and documentation, EPA agrees that the Applicant has completed the species-related screening procedures and has demonstrated, providing appropriate documentation, that the proposed Project meets Criterion A of the listed species-related eligibility criteria for coverage under the SQCS General Permit.

Historic Properties-Related Eligibility Criteria

EPA developed the screening process in Appendix B of the Request for Coverage form to enable source owners/operators to appropriately consider the potential impacts, if any, resulting from the construction, modification, and/or operation of a new or modified emission source on historic properties and, if applicable, determine whether actions can be taken to mitigate any such impacts. To be eligible for coverage under the SQCS General Permit, sources must demonstrate that they have satisfactorily completed the screening procedures and that they meet one of the historic property-related eligibility criteria, provide sufficient documentation supporting the criterion selected, and obtain confirmation from EPA that they have done so.

With respect to the Project, the Applicant indicated in the Request for Coverage that the screening process in Appendix B of the Request for Coverage form had been completed to determine if the construction, modification or operation of the Project has the potential to cause effects to historic properties. The Request for Coverage indicated that an assessment performed in 2009 as part of the environmental assessment for the Project concluded that, with certain stipulations being met, no historic properties would be affected by the Project. The Request for Coverage included an archeological inventory report completed on June 15, 2009. There are three historic properties located adjacent to the Project area near the existing haul road. The report indicates that with the stipulation that no widening of the existing haul road be undertaken in the vicinity of the sites, no historic properties will be affected by the Project. EPA also coordinated with the Navajo Nation Historic Preservation Department (NNHPD), which provided confirmation in August 2015 of the finding of “no historic properties affected,” provided the stipulated conditions are met for the Project.

EPA has concluded that the Applicant has demonstrated that it has satisfactorily completed the historic property-related screening procedures and that the Project meets one of the historic property-related eligibility criteria -- in this case, “no historic properties affected” -- and that the Applicant has provided sufficient documentation supporting the criterion selected. EPA has concluded that the Project is consistent with the historic property-related eligibility criterion for coverage under the SQCS General Permit, based on the documentation provided in the Request for Coverage (and the confirmation obtained from the NNHPD), specifically including but not limited to representations in the Addenda to the Request for Coverage that the following measures will be implemented for the Project by the Applicant:

- (1) No widening of the existing haul road will be conducted in the vicinity of the three historic sites indicated in the June 2009 Archaeological Inventory Report;
- (2) All construction within 50 feet of the boundaries of two specific historic sites will be flagged and monitored by a qualified archaeologist prior to any activity.
- (3) New construction activity in the expanded Grey Mesa Gravel Pit shall only extend to the boundaries specified in the application, totaling approximately 83.73 acres.
- (4) In the event of a discovery (“discovery” means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices), all operations in the immediate vicinity of the discovery will cease, and the NNHPD

will be notified at (928) 871-7198. All operations in the immediate area of the discovery will be suspended in the immediate area until approval to proceed is issued by NNHPD.

Public Participation

As described in 40 CFR 49.157, issuance of general permits pursuant to the Tribal NSR Rule must meet public participation requirements. Before issuing a permit under the Tribal NSR program, EPA must prepare a draft permit and must provide adequate public notice to ensure that the affected community and the general public have access to the draft permit information. The public notice must provide an opportunity for a 30-day public comment period and notice of a public hearing, if any, on the draft permit. Consistent with these requirements, during the development of the proposed SQCS General Permit, EPA followed the applicable public participation process and received numerous comments. EPA considered and addressed these comments in its issuance of the final SQCS General Permit (See 80 FR 25068).

For coverage of a particular source under the SQCS General Permit, EPA's analysis of whether the source is within the category of emissions sources to which this General Permit applies, including whether the source meets the criteria to be eligible for coverage under the general permit, must be made available to the public. EPA has described its analysis in this TSD, which will be made available, along with EPA's Approval of Request for General Permit Coverage for the Project under the SQCS General Permit and certain supporting documentation, on the EPA website at:

<http://www.epa.gov/caa-permitting/tribal-nsr-permits-region-9>

These documents, and the entire administrative record for this Approval of Request for Coverage, can also be obtained by contacting Larry Maurin at the EPA address or phone number listed below. All documents will be available for review at the EPA Region IX office indicated below, during regular business hours. Due to building security procedures, please call Larry Maurin at (415) 972-3943 at least 24 hours in advance to arrange a visit.

Larry Maurin (AIR-3)
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Hard copies of these documents can be mailed to individuals upon request in accordance with Freedom of Information Act requirements as described on the EPA Region 9 website at <http://www2.epa.gov/foia>.

EPA is also making this TSD and our Approval of Request for Coverage for the Project, and certain other supporting documentation, available for review at:

Navajo Nation Environmental Protection Agency
Air Quality Control Program
Route 112, North Bldg. #2837
P.O. Box 529
Fort Defiance, AZ 86504
(928) 871-6790

EPA's Approval of Request for Coverage for the Project is a final agency action for purposes of judicial review, only for the issue of whether the Project qualifies for coverage under the SQCS General Permit. 40 CFR 49.156(e)(6). Any petition for review of this approval action must be filed in the United States Court of Appeals for the appropriate circuit pursuant to CAA section 307(b).