



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: CPM Development Corporation dba Central Washington Concrete
P.O. Box 3366
Spokane, Washington 99220

Project Name: Central Washington Concrete Crushing Plant

Location: Toppenish Quarry, 441 E. McDonald Road, Toppenish, Washington 98948

Source Contact: Ms. Jana McDonald, Environmental Manager
(509) 534-6221
jana.mcdonald@na.crh.com

Date: February 23, 2021

Permit#: R10TNSR00401 (replaces R10TNSR00400)

Background

The Clean Air Act provides the U.S. Environmental Protection Agency 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 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 the EPA-approved NSR program on the Yakama Nation, the EPA has the authority to implement a Federal Implementation Plan in order to protect tribal air resources from impacts due to the construction of new or modified stationary sources of air pollutants. In 2011, the 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, the 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. The 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 March 2, 2016, the EPA Region 10 received an initial Request for Coverage under the SQCS General Permit from Central Washington Concrete for the construction and operation of its existing quarry in Toppenish, Washington. The project for which the SQCS General Permit coverage is sought is the construction and operation of a stone quarrying, crushing, and screening facility, which will entail construction and operation of new equipment at the existing quarry. On March 15, 2016, the EPA sent an email to CWC indicating that additional information was needed for the EPA to determine the Project's eligibility for the SQCS General Permit coverage under the listed species and historic properties eligibility criteria. In response, CWC submitted additional information on April 21, 2016. On April 26, 2016, the EPA reviewed this additional information and then sent a follow-up email informing CWC that the documentation supporting their listed species and historic properties eligibility was not sufficient. On June 14, 2016, CWC provided the documentation requested by the EPA. On June 20, 2016, the EPA confirmed in an email that CWC had provided the necessary documentation to show that their facility meets the listed species and historic properties eligibility criteria to apply for the SQCS General Permit. The original Approval for Coverage under the SQCS General Permit, for operation at the Toppenish Quarry, was issued to Central Washington Concrete on September 28, 2016. On October 8, 2020, Region 10 received a notification, from Central Washington Concrete, a tertiary crusher was to be replaced with a newer unit. Specifically, the Nordberg HP400 tertiary crusher (I.D. #520) manufactured in 2004 with a capacity of 500 tons per hour will be replaced by a KPI-JCI K400+ tertiary crusher (I.D. #540) manufactured in 2018 with the same capacity. The change in equipment did not affect the source's allowable emissions because the replacement crusher will serve the same purpose with the same capacity. Region 10 is administratively revising the Approval to update the affected emission units associated with the source and change the name of the permittee to include the parent corporation's name, CPM Development Corporation. On January 8, 2021, Region 10 sent an electronic copy of the revision request to the Yakama Nation environmental staff. No concerns regarding the revision were raised.

CWC is considered the "Applicant" and the "Permittee" for the Project. This Technical Support Document describes our analysis of the Applicant's Request for Coverage for the Project and our determinations concerning this request.

The Project will be located at 441 E. McDonald Road, Toppenish, Washington, 98948, at an existing quarry within the Yakama Nation Indian Reservation, in Yakima County, Washington.

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

Approval of Request for General Permit Coverage

The 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, the 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. The EPA’s review with respect to some of these criteria is discussed in more detail below in this TSD.

The EPA’s Approval of Request for Coverage for the Project is based in part on representations by CWC 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 Toppenish Gravel Mine (pka Graham and Morris Sand and Gravel) 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 Toppenish Quarry 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 the 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
500	Primary Crusher; Nordberg C110; 500tons/hour	Water Spray	2008
510	Secondary Crusher; Nordberg HP400; 500 tons/hour	Water Spray	1998
530	Tertiary Crusher; Nordberg HP300; 500 tons/hour	Water Spray	1998
540	Tertiary Crusher; KPI-JCI K400+; 500 tons/hour*	Water Spray	2018
400	Regular Screen; JCI 5 x 20; 500 tons/hour	Water Spray	2004
420	Regular Screen; JCI 5 x 20; 500 tons/hour	Water Spray	1997
421	Regular Screen; JCI 5 x 20; 500 tons/hour	Water Spray	1997
430	Jaw Feeder; 500 tons/hour	None	2008
701	Main Bunker Loadout, 500 tons/hour	None	Unknown
702	Chip Bunker Loadout, 500 tons/hour	N/A	Unknown
Multiple	Conveyors	None	Unknown

*Original 2016 approval was for a Nordberg HP400 tertiary crusher (originally unit ID#520) replaced in 2020.

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
20201	Portable Generator Engine; 950 horsepower ¹	Caterpillar, 950 horsepower	1991

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 synthetic 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 of 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 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 synthetic minor 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.

¹ Based on information provided in the Request for Coverage, Equipment Unit # 20201 is exempt from the requirements for stationary engines in the SCQS General Permit because they will remain at the Toppenish quarry 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.

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, CWC 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
500, 510, 530, 540, 400, 420, 421, 430, 701, 702, and Conveyors	23.75	8.78	0.95	0.00	0.00	0.00	0.00
Storage Piles	0.11	0.05	0.01	0.00	0.00	0.00	0.00
Total	23.86	8.83	0.96	0.00	0.00	0.00	0.00

Listed Species-Related Eligibility Criteria

The 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 the EPA that they have done so.

The Request for Coverage states that the Project meets Criterion B of Appendix A with respect to listed species protection. The Request for Coverage attached the relevant documentation pertaining to the Project and supporting the selection of Criterion B of Appendix B. Based on habitat requirements and an analysis of the available habitat within the boundaries of the proposed Project and the action area, the documentation shows that listed species and/or critical habitat could exist in the Project's action area. In an email, dated June 20, 2016, to the Central Washington Field Office of the U.S. Fish and Wildlife Service the applicant's consultant indicated that a visual inspection of the existing quarry did not identify any of the four species that could exist in the Project's area based on the FWS's maps. In response, the FWS in an email, dated June 20, 2016, indicated that based on the information provided the FWS did not expect any listed species or their critical habitat to be exposed to the construction and operation of the Project. The documentation in our record demonstrates that the construction and operation of the Project are not likely to cause any adverse effects to the listed threatened or endangered species or their critical habitat. After review and consideration of this information and documentation, the EPA agrees that the Applicant has completed the species-related screening procedures and has demonstrated, by providing appropriate documentation, that the proposed Project meets Criterion B of the listed species-related eligibility criteria for coverage under the SQCS General Permit.

Historic Properties-Related Eligibility Criteria

The 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 the 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 no historic properties would be affected by the Project. This conclusion was based on the facts that the source is an existing quarry and prior earth disturbances preclude the existence of historic properties in the area, both in the quarry and on the access roads. The Request for Coverage also included a search of the National Register of Historic Places which did not indicate any historic sites in or around the Project. This search indicated that the closest historic place was approximately 1.6 miles from the site. The EPA also consulted the Yakama Nation, which provided no objection of the finding of “no historic properties affected”. On January 8, 2021, Region 10 sent an electronic copy of the revision request (replacement of tertiary crusher unit ID# 520 with a new unit) to the Yakama Nation environmental staff. No concerns regarding the revision were raised.

The 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. The 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 consultation with the Yakama Nation).

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, the 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, the EPA followed the applicable public participation process and received numerous comments. The 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, the 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. The EPA has described its analysis in this TSD, which will be made available, along with the 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: <https://www.epa.gov/caa-permitting/air-permits-issued-epa-region-10>.

The 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).