



Request for Coverage under the General Air Quality Permit for New or Modified Minor Source Hot Mix Asphalt Plants in Indian Country

Technical Support Document

Permittee: Helena Sand & Gravel
CPM Development Corporation
P.O. Box 3366
Spokane, WA 99220-3366

Project Name: Helena Sand & Gravel Asphalt Plant – Wapato Quarry

Location: Wapato Quarry
2131 Lateral 1 Road
Wapato, WA 98951
Yakima County
Yakama Reservation
Latitude: 46.478° N; Longitude: 120.495° W

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Date: February 14, 2022

Permit #: R10TNSR02800

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. In 2011, the EPA finalized the Tribal New Source Review, codified at 40 CFR Part 49, as part of 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 where there is no EPA-approved NSR program. 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. See 40 CFR 49.156. 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 Hot Mix Asphalt Plants (HMA General Permit) in Indian Country effective June 1, 2015 (80 Fed. Reg. 25068 (May 1, 2015)). New and modified minor sources that are true minor sources or major sources seeking to become synthetic minor sources may apply for coverage under the HMA General Permit if the emission increase 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.

This Technical Support Document describes Region 10's analysis of the Applicant's Request for Coverage for the Project and our determinations concerning this request.

Request for Coverage under HMA General Permit

On February 26, 2021, Region 10 received an initial Request for Coverage under the HMA General Permit from Helena Sand & Gravel, Inc. (Helena S&G) to construct and operate a hot mix asphalt plant synthetic minor source on the Yakama Reservation (the Project) at Wapato Quarry in Wapato, Washington. The Request for Coverage was certified and signed as being true and accurate by Michael McBreen, President, on February 16, 2021. Processing of the application was initiated in August 2021 and an additional information request was issued September 9, 2021.

Helena S&G will likely co-locate the HMA plant with a stone quarrying, crushing, and screening plant, owned and operated by another independent entity at the Wapato Pit. Currently, companies that have approval to operate SQCS plants under EPA's General Permit for co-located SQCS facilities at the Wapato Quarry are Columbia Asphalt & Ready Mix (under permit #R10TNSR01300) and Central Washington Concrete (under permit #R10TNSR02201). A co-located SQCS may produce crushed rock prior to or during operation of the HMA. Helena S&G is considered the "Applicant" and the "Permittee" for the Project.

Approval of Request for General Permit Coverage

Based on a review of and reliance on all of the information and representations provided in the Request for Coverage and other relevant information, Region 10 has determined that the Project qualifies for coverage under the HMA General Permit because it meets all of the required criteria. In particular, and as further described below:

The Project is for a synthetic minor (drum) HMA plant that only produces hot mix asphalt and is located within Indian Country.

- The Project is located in an attainment, unclassifiable or attainment/unclassifiable area for all National Ambient Air Quality Standards (NAAQS) pollutants.
- The plant will only use distillate fuel in the dryer/mixer.
- The dryer/mixer is controlled by a baghouse.
- The plant will be portable, not to be located at the site for more than 365 days.
- The stationary generators will be powered by ultra-low sulfur diesel.
- The auxiliary heater will be powered by diesel and has a heat input capacity less than 10 MMBtu/hour
- Each asphalt and fuel storage tank has a capacity less than 39,890 gallons.
- The Project may be co-located with a SQCS plant and will comply with conditions 17.a (drum mix HMA) and 20.b of the HMA General Permit to limit combined emissions of regulated pollutants to less than 100 tons per year.
- The Applicant has met the eligibility criteria related to federally-listed species and has completed the screening process for historic properties.

This Approval and the HMA General Permit authorize the Permittee to operate the Project within the exterior boundaries of the Yakama Reservation at the location described on page 1 of this TSD. Region 10's review with respect to the criteria is discussed in more detail below.

Project Description

The Wapato Quarry Pit is an active quarry located on the Yakama Reservation. Helena S&G proposes to construct (locate) and operate a portable HMA plant as a temporary portable source at the quarry. The HMA plant is a portable parallel-flow drum mix plant with a design capacity of 220 tons per hour of hot mix.

The EPA anticipates a rock crushing operation will be co-located at the quarry, possibly operating at the same time as the HMA plant. A firm independent of Helena S&G may operate an SQCS before or during operation of the HMA.

Helena S&G HMA Plant: Affected Emission Units Covered by this Approval

ID #	Description of Affected Emission Units ^a	Controls
EU-1	HMA Drum Dryer/Mixer: Asphalt Drum Mixers, Inc., 220 tons per hour, 96.8 MMBtu/hour portable parallel-flow plant, constructed in 1992, max. 27% RAP input.	Baghouse
EU-3	Auxiliary Heater: Wayne Combustion Systems Burner Model EH, diesel-fueled, 0.84 MMBtu/hour	None
EU-4	Cold Aggregate Storage Piles	Water Spray
EU-5	3-bin Cold Feed Unit: 220 ton/hour capacity, constructed in 1992	Water Spray
EU-6	Cold Aggregate Screen: 220 ton/hour capacity, constructed in 1992	Water Spray
EU-7	Silo Mineral Filling: 220 ton/hour capacity, constructed in 1992	Water Spray
EU-8	Self-Erect 50-Ton Silo: constructed in 1992	None
EU-9	Truck Loading: 220 ton/hour capacity	None
EU-10	Vehicle Traffic	water application
EU-11	Asphalt Oil Storage Tank: above-ground 30,000 gallon capacity, installed in 1993	None
EU-12	Diesel Storage Tank: above-ground 10,000 gallon capacity, 0.0056psi liq. Vapor pressure, installed in 1980.	None

^aA 676 hp Caterpillar 3412 diesel generator (ID# EU-2) was included in the application and is considered a portable non-road engine, exempt from the engine requirements in the General Permit.

Ambient Air Quality

The geographic area where the Project will be located is designated attainment or attainment/unclassifiable under the CAA for all criteria pollutants. The HMA General Permit contains limits on emissions and operations sufficient to ensure that the HMA plant is not a major source and to ensure that emissions would not cause or contribute to a violation of any NAAQS (80 Fed. Reg. at 25085, under typical conditions). Generally, the EPA recognizes operations in compliance with the general permits would not cause or contribute to a NAAQS or PSD increment violation. Region 10 therefore believes that the HMA General Permit is appropriately protective of the NAAQS.

Analysis of regionally representative background concentrations was conducted. A survey of current air monitoring records in the vicinity of these projects revealed several active representative monitors in the immediate area of the quarry. A regulatory PM₁₀ monitor is located in Yakima, about 8 miles north of the Project site and a regulatory PM_{2.5} monitor is located in Toppenish about 10 miles southeast of the Project site. However, the particulate matter monitoring records at these sites have been significantly impacted by wildfire smoke events the past few years. Analysis and modification of the record would be required to remove the days of wildfire smoke influence to determine a representative background concentration. As an alternative, the NW-AIRQUEST Regional Background Lookup Tool¹ can be used to determine representative background concentrations of all criteria air pollutants. The tool was used to identify representative background concentrations at the Project site. The tool predicts current background air pollutant concentrations using both monitored and modeled concentrations interpolated to a 4-km horizontal grid across the Pacific Northwest. Modeled concentrations are predicted by the AIRPACT regional air quality forecast model. Use of such a tool is allowed under 40 CFR Part 51, Appendix W, §8.3.2(f) to determine representative background concentrations. The representative concentrations are listed in the following table.

Representative Background Concentrations.

Air Pollutant	Averaging Time	NAAQS (µg/m ³)	Background Concentration (µg/m ³)
PM ₁₀ (AIRPACT)	24-hr	150	74
PM _{2.5} (AIRPACT)	24-hr	35	27
	annual	12	7
CO	1-hr	40,000	1,400
	8-hr	10,000	900
NO ₂	1-hr	188	48
	annual	100	8
SO ₂	1-hr	196	12

^aProject site nearest AIRPACT representative grid cell at: 46.47°N, 120.51°W

The analysis found background concentrations of all criteria pollutants are significantly below the NAAQS thresholds. Region 10 has no concern regarding the ambient impacts of emissions from the project. Also, EPA reached out to air quality staff (Elizabeth Sanchez and Noelle Saluskin) of the Confederated Tribes and Bands of the Yakama Nation and no concerns regarding air quality impacts from the Project were relayed.

Emissions

A source in an attainment area must obtain a major source construction permit if its emissions of regulated NSR pollutants will be greater than 100 tons per year for listed source categories and 250 tons per year for non-listed categories. A source in an attainment area must obtain a major source operating permit if its emissions will be greater than 100 tons per year for regulated pollutants and 250 tons per year for PM. A source must obtain a minor NSR permit if its emissions are less than the major source construction permitting thresholds, but more than the minor NSR permitting thresholds in the table

¹ NW-AIRQUEST regional background concentration lookup tool located at: <http://lar.wsu.edu/nw-airquest/lookup.html>

below. Permit limitations, also called synthetic minor limits, are considered in determining whether a source will be a major source.

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

A new or modified source that is required to obtain a minor NSR permit may qualify for coverage under a minor NSR general permit in lieu of obtaining a site-specific permit. To qualify for the General Permit, the new or modified source must meet the eligibility criteria in the Request for Approval (see the Approval of Request for General Permit Coverage section above) and be able to comply with the limitations in the General Permit. If a new or modified source does not meet the specified criteria or cannot comply with the limitations in the General Permit, the source does not qualify for coverage under the General Permit and must apply for a site-specific minor NSR permit or other applicable NSR permit.

The HMA General Permit includes enforceable physical or operational limitations on the maximum capacity of the source to emit air pollutants, including air pollution control equipment and restrictions on the type or amount of material combusted, stored, or processed. The permit is designed to ensure emissions remain below the major source construction and operating permit thresholds. The HMA General Permit also contains specific requirements for sources located in PM₁₀ nonattainment areas. When an HMA plant is co-located (two operations functioning as one source at the same location) with an SQCS facility, emissions from both sources must be totaled to determine the applicable permitting program. Both general permits include special limitations that apply to co-located sources to ensure that the total emissions from both operations are less than the major source permitting thresholds.

The potential emissions contained in the table below are based on the material throughput limits and fuel consumption limitations for co-located HMA plants and SQCS plants that are specified in the respective general permits and assume compliance with those limitations. For more information about how these emissions were calculated, please see the [Background Document: General Air Quality Permit for New or Modified Minor Source Hot Mix Asphalt Plants in Indian Country \(Final\) \(PDF\)\(25 pp, 857 K, 03/23/15\)](https://www.epa.gov/sites/production/files/2016-05/documents/hotmixasphaltbackgrounddocument.pdf) at <https://www.epa.gov/sites/production/files/2016-05/documents/hotmixasphaltbackgrounddocument.pdf>.

HMA Plant (Controlled) Potential to Emit Summary

Process	Pollutant (tons/year)						
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC
Co-located HMA Plant and SQCS Plant	86	63	30	18	90	78	27

The Helena S&G HMA plant has been source tested for Particulate Matter as recently as July 28, 2020, so may not require an initial performance test of PM, since the most recent test (which showed compliance with the 0.04 gr/dscf PM emission limit in Condition 25 of the General Permit) was conducted within two years of this approval, as specified in Condition 32c. Initial performance tests will be required for the mixer/dryer for Carbon Monoxide and Nitrogen Oxides, to comply with Condition 32 of the permit. No testing of the generator engines is required as long as the engines are non-road engines (the HMA is portable and will not be located at the site more than 365 days).

As specified in Condition 32 of the General Permit, within 60 days after achieving the maximum production rate at which the permitted source will operate but not later than 180 days after the first day of operation after receiving coverage under the General Permit, Helena S&G shall perform an initial performance test of the Mixer/Dryer to verify compliance with the applicable emission limitations in the General Permit.

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 HMA General Permit. Appendix A to the Request for Coverage form for the HMA 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 a 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 Applicant’s Request for Coverage states that the Project meets Criterion B of Appendix A with respect to listed species protection (federally-listed threatened or endangered species or designated critical habitats likely to occur in action area of source, but not likely to adversely affect species). As evidence, the Applicant provided a record of the determination from General Permit approval #R10TNSR01200 from 2018. The prior approval was for coverage of a plant at the same Wapato Quarry under the HMA General Permit. The 2018 approval noted the Project is located in an agricultural area in an active rock quarry surrounded by a berm to prevent stormwater flow offsite. The 2018 approval also noted an inspection found no listed species or critical habitat at the action site and these findings were confirmed by the Central Washington Field Office of the U.S. Fish and Wildlife Service (FWS). To confirm the prior findings in the 2018 approval are still valid, Region 10 reached out to Columbia Basin Branch of NOAA Fisheries and the Washington office of FWS. Justin Yeager of NOAA Fisheries confirmed the action site is outside of critical habitat for ESA listed species and unlikely to have any impacts since the project will not affect the Yakima River. Region 10 contacted Sonja Kokos of FWS who stated a formal consultation is not required and recommended the EPA document the rationale

behind a finding of no effects in our permit decision. Based on our findings and consultations, the EPA has found the project does not pose significant risk to ESA listed species or habitat.

After review and consideration of this information, Region 10 agrees that the Applicant has completed the species-related screening procedures and has demonstrated by providing the appropriate information and documentation that the proposed Project meets Criterion A of the listed species-related eligibility criteria for coverage under the HMA General Permit (instead of Criterion B). Per Appendix A of the Request for Coverage, this HMA plant would meet Criterion A because there are no federally-listed threatened or endangered species or designated critical habitat of such species within the action area of the project.

Historic Properties-Related Eligibility Criteria

The EPA engaged in the National Historic Preservation Act Section 106 process when the General Permit was issued. Requests for approval under the General Permit are not subject to NHPA Section 106 but are subject to the NHPA screening requirements in Appendix B of the Request for Coverage. The EPA developed the screening process in Appendix B of the Request for Coverage 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 that are either listed on or eligible for listing on the National Register of Historic Places and, if applicable, determine whether actions can be taken to mitigate any such impacts. To be eligible for coverage under the HMA 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. As evidence, the Applicant provided a record of the determination from General Permit approval #R10TNSR01200 from 2018. In the prior approval, the EPA determined the Project was unlikely to cause any impacts to cultural resources or historic sites. The approval was based on the fact the project will be located in an existing quarry and no historic properties or resources have been found to exist on the site. The approval also referenced a 2005 approval from Yakima County and Yakama Nation which determined there were no indications the site of the quarry was a cultural site. The 2005 approval from the Yakama Nation for mining/excavation at the site determined “there are no indications the land is a cultural site” and that “the development of the site will not be detrimental to the cultural practices of the Yakama Nation or surrounding area.”

On the Yakama Reservation, the THPO is the lead for the historical preservation program. Region 10 contacted Kate Valdez, the THPO of the Yakama Nation, to verify if the prior determinations were still valid and if the Project was unlikely to cause any concern for impacts to cultural resources. Region 10 also reached out to Cultural Resources contact Johnson Meninick. Region 10 did not receive any feedback from the THPO or Cultural Resources department after multiple queries. Region 10 notes that in the 2018 approval for the operation of an HMA at the site under the GP, the THPO concurred with the 2005 decision of “no historic properties affected.”

Region 10 has concluded that the Project meets the historic property-related eligibility criteria “no historic properties affected” based on prior findings and on the fact the project will not involve disturbance of additional land. Region 10 concludes the project is consistent with the historic property-related eligibility criterion for coverage under the HMA General Permit.

Environmental Justice

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high, and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations in the United States.

The EPA believes the human health or environmental risk associated with this action will not have disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. The EPA’s primary goal in developing the HMA General Permit was to ensure that air resources in Indian Country will be protected in the manner intended by the CAA. The HMA General Permit will limit adverse impacts by restricting operations and emissions. In addition, the HMA General Permit is part of a flexible preconstruction permitting program for minor sources in Indian Country that is comparable to similar programs in neighboring states in order to create a more level regulatory playing field for owners and operators within and outside of Indian Country. The HMA General Permit reduces an existing disparity by filling the regulatory gap.

As explained above, the general permit was designed to be protective of the NAAQS, and Region 10 therefore believes that the HMA General Permit is appropriately protective of the NAAQS with respect to the Project. Compliance with the NAAQS is emblematic of achieving a level of public health protection that demonstrates that a proposed facility will not have a disproportionately high and adverse human health or environmental effects on minorities or low-income populations. See, e.g., *In re Shell Offshore Inc.*, 13 E.A.D. 357, 404-5 (EAB 2007).

Tribal Consultation

Region 10 initially sent an electronic copy of the HMA application and supporting information to the Yakama Nation environmental staff and THPO on August 17, 2021. Region 10 sent a letter to the Chairman of the Yakama Nation Tribal Council on August 30, 2021, offering an opportunity for consultation on this EPA permitting action. EPA did not receive a request for formal consultation associated with this Project.

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 HMA 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 HMA General Permit (See 80 Fed. Reg. 25068 (May 1, 2015)).

In contrast, a 30-day public comment period under 40 CFR 49.157 is not required for an approval of a request for coverage of a particular source under a General Permit. Region 10 posted the request for coverage on its website on August 9, 2021, prior to the issuance of any decision to approve or deny the request for coverage and requested the public to submit any concerns about the applicant's eligibility to construct under the General Permit. Region 10's air permits website can be found at: <https://www.epa.gov/caa-permitting/caa-permitting-epas-pacific-northwest-region>.

Region 10's Approval of the Request for Coverage for the Project is a final agency action for purposes of judicial review only for the issue of whether the Project is eligible for coverage under the HMA General Permit (see 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).