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: Interstate Concrete and Asphalt Company, dba
Columbia Asphalt & Ready-Mix
P.O. Box 3366, Spokane, Washington 99220

Project Name: Columbia Portable Hot Mix Asphalt Plant

Location: Wapato Quarry
2131 Lateral 1 Road, Wapato, Washington, 98951
Yakima County
Yakama Reservation

Source Contact: Jana McDonald
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Date: May 25, 2018

Permit #: R10TNSR01200

Background

The Clean Air Act (CAA) provides the U.S. Environmental Protection Agency (EPA) 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 (NSR Rule), 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 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.

This Technical Support Document (TSD) 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 March 30, 2018, Region 10 received an initial Request for Coverage under the HMA General Permit from Columbia Asphalt & Ready-Mix (Columbia) to construct and operate a hot mix asphalt (HMA) plant synthetic minor source on the Yakama Reservation (the Project). This Request for Coverage was certified and signed as being true, accurate and complete by Mike McBreen on March 30, 2018. The request originally included two locations, one in Wapato and one in Toppenish, both within the exterior boundaries of the Yakama Reservation in Washington state. Columbia plans to co-locate the HMA plant with a stone quarrying, crushing and screening plant (SQCS). The SQCS approval will be processed as a separate Region 10 action. On April 2, 2018, Columbia requested Region 10 only process the request for the Wapato location, not the Toppenish location. Columbia 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 natural gas, propane or #2 distillate (a type of diesel) fuels in the dryer/mixer and #2 diesel fuel in the generators, and the auxiliary heater is electric.
- The dryer mixer is controlled by a baghouse.
- Each asphalt and fuel storage tank has a capacity less than 39,890 gallons.
- The Project will be co-located with a SQCS plant and will comply with conditions 17 and 20.b of the HMA General Permit to limit combined emissions of regulated NSR-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 (Wapato Quarry). Region 10's review with respect to the criteria is discussed in more detail below.

Project Description

Columbia proposes to construct (locate) and operate both a portable HMA plant and a SQCS plant at the identified location (Wapato Quarry). The Wapato Quarry is an active quarry, 80 acres in size with high berms on all four sides. Columbia has stated that the HMA plant proposed, while sited at the Wapato Quarry, would be expected to operate normally from March through November. Maximum operation would be six days per week although typical operation would be less. The HMA plant will operate during daytime hours only unless specifically required by a specific contract to perform work during non-daytime hours. Annual maximum production is 250,000 tons of hot mix although actual production is anticipated to be less than one-half of that.

Columbia HMA Plant List of Affected Emission Units Covered by this Approval

ID #	Description of Affected Emission Units	Controls
1	**HMA Drum Dryer/Mixer**: CMI Model PTD 400; manufactured 1996, portable, counter-flow design drum; 400 tons/hour capacity; RAP capability; 88 mmBtu/hr burner, fueled with natural gas, propane, #2 diesel	Roto-Aire Model RA-418PTD Baghouse
2	**Generators** **(1) Primary Generator**: Caterpillar Model 3508TA (compression ignition); manufactured 1999; fueled with #2 diesel; 820 kW output (7.9 mmBtu/hr heat input); 1,000 horsepower **(2) Backup Generator**: Caterpillar Model 3306 (compression ignition); manufactured 1996; fueled with #2 diesel; 205 kW output (2.2 mmBtu/hr heat input); 300 horsepower	None
3	**AC Oil Tank Heater:** 10 MMBtu/hour capacity; electric; manufactured 1996	None
4	**Aggregate and RAP Handling and Screening**: to and from piles and to drum dryer; via trucks, loader, 6 aggregate conveyors; 3 RAP conveyors; 1 virgin aggregate screen; 1 RAP screen; 400 tons/hour capacity	Water sprays and enclosures
5	**Silo Filling**: via conveyor from drum dryer; 400 tons/hour capacity	Reinjection to dryer
6	**Truck Loading and Fumes**: HMA truck load-out from silos and fumes from loaded truck bed while in plant; 400 tons/hour capacity	None
7	**Vehicle Traffic**: HMA trucks, aggregate and RAP trucks, asphalt trucks, loader for aggregate and RAP	Water application
8	**Aggregate Storage Piles**: open areas and aggregate storage piles	None
9-1	**Liquid Asphalt Oil Storage Tank:** 30,000 gallons capacity; electrically heated	None
9-2	**#2 Diesel Storage Tank:** 12,000 gallons to supply drum dryer	None
9-3	**#2 Diesel Storage Tank:** 4,000 gallons portable tank trailer	None
9-4	**Undefined Liquid Fuel Storage Tank:** 1,500 gallons	None
9-5	**Liquid Asphalt Oil Storage Tank:** 15,000 gallons; electrically heated	None

Ambient Air Quality

The geographic area where the Project will be located is designated attainment or attainment/unclassifiable under the CAA for all NAAQS pollutants. The area experiences high ambient

fine particulate matter (PM2.5) levels, approaching the ambient standard of 35 micrograms per cubic meter (ug/m3), caused primarily by wood stove use during wintertime inversions. During the road construction season (March through November), with the exception of wildfire events, daily PM2.5 levels measured in Toppenish and Yakama, the nearest monitoring locations, rarely exceed 20 ug/m3 and are typically around 10 ug/m3 or less. 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. The HMA General Permit contains requirements that limit PM2.5 emissions, as does the SQCS General Permit. Based on the requirements in the HMA General Permit and the SQCS General Permit, that elevated PM2.5 levels in the area are associated with wood stove usage during wintertime inversions, and that the Project and the associated SQCS operations are expected to operate primarily from March to November when wood stove usage and wintertime inversions are generally not a concern, Region 10 does not have reason to be concerned that operation of the Project in compliance with the HMA General Permit and the SQCS operations in compliance with the SCS General Permit would cause or contribute to a NAAQS or PSD increment violation. Region 10 therefore believes that the HMA General Permit, in conjunction with the SQCS General Permit, is appropriately protective of the NAAQS.

Regarding high PM2.5 ambient pollution levels caused by wildfires during the road construction season, NAAQS violations attributed to wildfires may qualify as exceptional events and be excluded in determining attainment of the NAAQS under EPA's Exceptional Event Rule (40 CFR 50.14). Nonetheless, the EPA has the authority to address emissions detrimental to public health and welfare under the Federal Air Rules for Reservations (FARR) and under the CAA. Under 40 CFR 49.137, if the EPA determines that air pollutants are approaching, or have reached, levels that could lead to a threat to human health, the agency is authorized to declare air pollution alerts, warnings or emergencies. During an air pollution warning or air pollution emergency, the EPA may issue an order to any air pollution source requiring such source to curtail or eliminate the emissions. The agency also has the authority to issue an order pursuant to Section 303 of the CAA to require an owner or operator to immediately reduce or cease the emission of air pollutants that are presenting an imminent and substantial endangerment to public health or welfare or to the environment.

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 HMA General Permit includes enforceable physical or operational limitations on the maximum capacity of a source to emit air pollutants, including air pollution control equipment and restrictions 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 HMA General Permit included consideration of the limitations on PTE in the HMA 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.

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 HMA 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 HMA General Permit and must apply for a site-specific Tribal NSR permit or other applicable NSR permit.

In this case, Columbia determined that the Project triggered the preconstruction permit requirements under the Tribal Minor NSR Rule and is seeking to obtain coverage under the HMA General Permit in lieu of obtaining a site-specific permit. As such, Region 10 has taken into account the enforceable limitations under the HMA General Permit in determining the PTE for the Project, whether it is a major source, and whether it is eligible for the HMA General Permit.

The Project's PTE will be limited to below 100 tons per year for the NAAQS pollutants and 250 tons per year for PM (which is not a NAAQS pollutant) making the Project a synthetic minor source for the Title V and NSR major source thresholds in attainment areas. The potential emissions contained in the Table below are based on the material throughput limits and fuel consumption limits for co-located HMA plants and SQCS plants that are specified in the respective general permits. 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) at https://www.epa.gov/sites/production/files/2016-05/documents/hotmixasphaltbackgrounddocument.pdf. Accordingly, the Project's potential emissions are at a level that qualifies it for coverage under the HMA General Permit co-located with an SQCS plant.

HMA and SQCS Co-located Plant (Controlled) Potential to Emit Summary

	Pollutant (tons/year)						
Process	**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

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. The Request for Coverage attached a narrative description of the Project location as well as related documentation showing the property boundaries associated with the Project. This information indicates that the Project is located in an agricultural area and is an active rock quarry. In addition, the information indicates that there is a berm around the perimeter of the Project such that no off-site stormwater flow is possible and there is no surface water adjacent to the Project. The Applicant also indicated that based on a visual inspection in March 2018 no listed species or their critical habitats were observed. Region 10 requested review of the documentation in our record by the Central Washington Field office of U.S. Fish and Wildlife Service (FWS). The FWS reviewer indicated that listed species or critical habitat are unlikely to exist within the boundaries of the Project location.

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 (instead of Criterion B as asserted by the Applicant) of the listed species-related eligibility criteria for coverage under the HMA General Permit. Per Appendix A of the Request for Coverage, this HMA plant would meet Criterion A because no federally-listed threatened or endangered species or designated critical habitat(s) of such species are likely to occur within the action area for the Project.

Historic Properties-Related Eligibility Criteria

EPA engaged in the National Historic Preservation Act (NHPA) 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. The Request for Coverage indicated that no historic properties would be affected by the Project. This conclusion was based on the fact that the source is an existing quarry and prior earth disturbances on part of the site have diminished the likelihood that historic properties exist on the Wapato Quarry site. The site received approval in 2005 from Yakima County and the Yakama Nation Water Code Administration for mining/excavation to a depth of 50 feet. The 2005 approval from the Yakama Nation stated that "currently there are no indications that 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 Tribal Historic Preservation Officer (THPO) is the lead for the historical preservation program. Region 10 contacted the THPO for input on the proposed site location regarding historic properties and cultural issues. After reviewing the information available and the proposed site location, 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" and that 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, in conjunction with the SQCS 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 sent an electronic copy of the HMA application and supporting information to the Yakama Nation environmental staff on April 1, 2018. Additional information was shared with the tribal staff as it was received. Region 10 sent a letter to the Chairman of the Yakama Nation on April 9, 2018, offering consultation on this EPA permitting action.

Formal government-to-government consultation was held in Toppenish on May 9, 2018. The Yakama Nation Council provided Region 10 valuable insight into the interests and concerns of the Yakama Nation with thoughtful comments and clarifying questions. The Council's concerns focused on the air quality impacts of the operation with respect to PM2.5, given the impacts of woodstoves and wildfires on air quality in the area. In response to these concerns, Region 10 performed additional research and analysis regarding the potential impacts of the Project on PM2.5 levels in the area. Details are documented in the Ambient Air Quality section above. Region 10 staff also reached out to tribal staff to address any unanswered questions or concerns and provided additional information regarding the State Environmental Protection Act, the National Environmental Protection Act and EPA's authority to address severe air quality events.

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 posts the request for coverage on its website prior to the issuance of any decision to approve or deny the request for coverage and requests 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).