

Technical Support Document

Permittee	Yavapai-Apache Sand and Rock P.O Box 249 Camp Verde, Arizona 86322
Facility	Yavapai-Apache Sand and Rock 3750 West Old Highway 279 Camp Verde, Arizona 86322
Location	Yavapai-Apache Sand and Rock, located near Camp Verde, AZ, on Indian Country lands owned by the Yavapai-Apache Nation, along Old Highway 279, approximately 5 miles north of the intersection of I-17 and State Hwy 260. Section 10, Township 14N, Range 4E
Source Contact	Matt Brogdon, Assistant Manager, Yavapai-Apache Sand and Rock
Date	April 27, 2018
Permit Number	2017-008-GP

Background

The Clean Air Act (CAA) provides the Environmental Protection Agency (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* 63 FR 7253 (February 12, 1998). For tribal lands without an EPA-approved NSR program, such as Yavapai-Apache, the EPA has the authority to implement a Federal Implementation Plan (FIP) 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” as part of a FIP under the CAA for Indian country. *See* 76 FR 38748 (July 1, 2011), codified at 40 CFR part 49. Among other requirements, the Tribal NSR Rule established a minor NSR permitting program applicable in Indian country (“Tribal Minor NSR Program”).

The Tribal Minor NSR Program allows the EPA to develop general permits for categories of minor sources as an alternative to site-specific permitting. *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 to minimize the burden on the reviewing authority and the regulated sources. The EPA issued a general permit for hot mix asphalt plants in Indian country (“HMA General Permit”) effective June 1, 2015 (80 FR 25068, May 1, 2015). New and modified minor sources may apply for coverage under the HMA General Permit if their combined potential to emit for new, modified, and existing units is below major source thresholds and they can meet throughput limits and other terms and conditions set forth in the HMA General Permit. Sources seeking coverage under the HMA General Permit must also demonstrate that they meet certain additional eligibility criteria.

The Yavapai-Apache Nation is a federally-recognized tribe that represents an amalgamation of two distinct cultures, the Yavapai and Tonto-Apache, who have occupied the Verde Valley of Arizona for several centuries. The tribe’s territory consists of four separate parcels of land located in Yavapai County, the majority of which are in the town of Camp Verde, AZ. Since the tribe does not have an approved NSR program, the EPA administers the Tribal Minor NSR program as the permitting authority for sources located within the tribe’s territory. Yavapai County has been designated as attainment and/or unclassifiable for all criteria pollutants.

Request for Coverage under HMA General Permit

On October 17, 2017, EPA Region 9 received a Request for Coverage under the HMA General Permit from the applicant for the construction and operation of a hot mix asphalt plant (“Project”). The hot mix asphalt plant will be co-located with an existing concrete batch plant and crushing and screening operation also owned and operated by the applicant. Processed aggregates such as sand, gravel, and rock from the crushing and screening operation will be used as feed to the hot mix asphalt facility for the manufacture of road paving asphalt.

Equipment Description

Yavapai-Apache Sand and Rock is proposing to construct a new parallel flow drum mix asphalt plant that is co-located with an existing concrete batch plant and crushing and screening operation. A list of proposed new equipment associated with the hot mix asphalt plant is included in Table 1 below. The facility operates on line power, and as a result does not operate any generators or internal combustion engines.

Table 1. Hot Mix Asphalt Plant Equipment List

Unit ID	Unit Description	Maximum Capacity	Control Technology	Construction Date
18-5101	Dryer	53 MMBtu/hr	Baghouse	2018
18-5102	Drum Mixer	200 tons/hr	Baghouse	2018
18-5103	Hot Oil Heater	1 MMBtu/hr	None	2018
18-5104	4-Bins	200 tons/hr	Water Spray	2018
18-5105	Collector Belt	200 tons/hr	Water Spray	2018
18-5106	Scalping Screen	200 tons/hr	Water Spray	2018
18-5107	40-foot Conveyor	200 tons/hr	Water Spray	2018
18-5108	Pug Mill	200 tons/hr	Water Spray	2018
18-5109	Scale Conveyor	200 tons/hr	Water Spray	2018
18-5110	Cement Silo	200 tons/hr	Baghouse	2018
18-5111	Drag Conveyor	200 tons/hr	Water Spray	2018
18-5112	Asphalt Silo	75 tons	None	2018
18-5113	Asphalt Oil Storage Tank	20,000 gallons	None	2018

Eligibility Criteria

Based on our review of the Request for Coverage, we have determined the Project qualifies for the HMA General Permit because it meets the following criteria¹:

- The Project is a minor source hot mix asphalt plant located within Indian country.
- The Project produces only hot mix asphalt.
- The Project is not located in a severe or extreme ozone nonattainment area. Yavapai County has been designated as attainment and/or unclassifiable for all criteria pollutants.
- The Project will use only natural gas in the asphalt dryer/drum mixer.
- The asphalt dryer/drum mixer is controlled by a fabric filter baghouse.
- The asphalt production rate of the Project is less than 83,000 tons/month for a drum mix asphalt plant. The applicant shall comply with permit conditions that limit facility production to 73,000 tons/month of asphalt.
- The Project will use only natural gas in auxiliary heaters. The only fuel combustion source is the hot oil heater, which uses natural gas only.
- The total maximum heat input capacity of the auxiliary heaters (including hot oil heaters) is equal to or less than 10 MMBtu/hr. The Project will use only a single auxiliary heater (a hot oil heater) which is rated at 1 MMBtu/hr
- The Project will use only diesel or biodiesel in the stationary engines/generators. The Project meets this criteria because it operates on line power, and does not operate any stationary engines or generators.
- Each asphalt storage tank and fuel storage tank has a max capacity of less than 39,890 gallons. The Project includes only a single 20,000-gallon storage tank.
- Total facility-wide emissions, including the hot mix asphalt plant (the Project), and co-located concrete batch plant and crushing and screening operation, are less than 100 tons per year for each NSR-regulated pollutant. The applicant has elected to comply with the asphalt production limit established in Condition 17 in order to limit combined facility-wide PTE to less than 100 tpy for any NSR-regulated pollutant. As seen in Table 2 and 3 below, the total facility-wide PTE of PM, which is the single largest NSR-regulated pollutant, is 69.85 tpy.
- As discussed further below, the applicant has met the eligibility criteria related to listed species under the Endangered Species Act (ESA) and historic properties related to the National Historic Preservation Act (NHPA).

Potential to Emit

Potential to emit (PTE) means the maximum capacity of a stationary source to emit an air pollutant under its physical and operational design. PTE is meant to be a worst-case emissions calculation and is used in many cases to determine the applicability of federal CAA requirements. The Tribal Minor NSR Program establishes specific PTE thresholds for new or modified stationary sources that trigger the requirement to obtain a preconstruction permit. Sources and projects with PTE above these thresholds may qualify for coverage under a Tribal NSR general permit in lieu of obtaining a site-specific permit. To qualify for the HMA General Permit, the new or modified source must have a PTE below the major NSR source thresholds, and meet certain 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

¹ See "Request for Coverage under the General Air Quality Permit for New or Modified Minor Source Hot Mix Asphalt Plants in Indian Country" (Version 1.0, January 4, 2017), 1-2.

source does not qualify for coverage under the HMA General Permit and must apply for a site-specific Tribal Minor NSR permit or other applicable NSR permit.

In this case, we have determined that the Project triggers the preconstruction permit requirements under the Tribal Minor NSR Program because its PTE exceeds permitting thresholds. As described previously, the applicant is seeking to obtain coverage under the HMA General Permit in lieu of obtaining a site-specific permit, and has indicated that it satisfies the eligibility criteria necessary to qualify for coverage. The HMA 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. Our evaluation of whether the Project qualifies for the HMA General Permit included consideration of the limitations and controls required by the HMA General Permit. A summary of the hot mix asphalt plant PTE is included in Table 2 below.

Table 2. Project (Hot Mix Asphalt plant) Potential to Emit¹

Process	NO_x (tpy)	CO (tpy)	PM (tpy)	PM₁₀ (tpy)	PM_{2.5} (tpy)	SO₂ (tpy)	VOC (tpy)
Dryer/Drum Mixer	11.40	56.94	14.45	10.07	1.27	1.49	14.02
Load-out/Silo Filling	-	1.15	0.73	0.73	0.73	-	7.53
Conveying	-	-	13.14	4.82	4.82	-	-
Screening	-	-	0.96	0.32	0.02	-	-
Storage Piles	-	-	3.17	1.50	0.23	-	-
Lime Silo Loading	-	-	4.82	4.82	4.82	-	-
Auxiliary Heater	0.43	0.36	0.01	0.03	0.03	0.00	0.02
Total	11.82	58.45	37.28	22.29	11.92	1.49	21.57
Minor NSR Permitting Threshold (Attainment Area)	10	10	10	5	3	10	5

¹Reflects controls and limitations from the HMA General permit, including a production throughput of 73,000 tons/month (12-month rolling basis), as required by Condition 17.

A hot mix asphalt plant that is co-located with a stone quarrying, crushing, and screening facility is eligible for coverage under the HMA general permit if the combined PTE of the operations is below applicable major NSR thresholds. As shown in Table 3 below, a major NSR permit is not required because facility-wide PTE for Yavapai-Apache Sand and Rock, including the hot mix asphalt plant, concrete batch plant, crushing and screening operation, and associated vehicle traffic, falls below applicable major source thresholds at 40 CFR 52.21. In addition, a major source Federal Operating Permit is not required because facility-wide PTE of each criteria pollutant is below the 100 tpy threshold at 40 CFR 71.2 for major sources located in attainment areas. Other Facility operations will be required to register as existing sources.

Table 3. Facility-wide PTE

Process	NO_x (tpy)	CO (tpy)	PM (tpy)	PM₁₀ (tpy)	PM_{2.5} (tpy)	SO₂ (tpy)	VOC (tpy)
Hot Mix Asphalt Plant	11.82	58.45	37.28	22.29	11.92	1.49	21.57
Concrete Batch Plant ¹	-	-	4.20	4.20	-	-	-
Crushing and Screening Operation	-	-	5.98	5.98	-	-	-
Vehicle Traffic	-	-	22.39	10.05	-	-	-
Total	11.82	58.45	69.85	42.52	11.92	1.49	21.57

¹ Includes wet plant operations and Redi-mix plant operations

Based upon the facility-wide PTE described above, as well as our review as described previously in the “Eligibility Criteria” section, we have determined that the Project qualifies for coverage under the HMA General Permit.

Listed Species-Related Eligibility Criteria

The EPA has 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 the HMA 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.

In its Request for Coverage, the applicant stated that 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 (Criterion A of Appendix A). In a biological assessment dated January 23, 2018, the applicant examined a list of Endangered and Threatened species developed from the U.S. Fish and Wildlife Services’ Information Planning and Conservation System (IPaC) online program, as well as the Arizona Game and Fish On-Line Environmental Tool. The information contained in the biological assessment indicates that no federally-listed threatened or endangered species, or designated critical habitat of such species, occur in the project area. After consideration of this information, the EPA agrees that the applicant has completed screening procedures to assess potential impacts of the Project, and that the proposed Project meets Criterion A of the listed species-related eligibility criteria for coverage under the HMA General Permit.

Historic Properties-Related Eligibility Criteria

Appendix B of the Request for Coverage form includes a screening process 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, to 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.

In its Request for Coverage, the applicant indicated that it had completed the screening process outlined in Appendix B to determine if the construction of the Project has the potential to cause effects to historic properties. The applicant included a cultural archaeological survey previously performed for the project area as part of the construction of the concrete batch plant, which identifies multiple potential sites of cultural significance. Correspondence with Tribal historic preservation staff during that action confirmed that two of the potential sites were of significant cultural importance, and that the remaining potential sites were determined to be not significant. Tribal historic preservation staff, in discussion with state historic preservation staff, developed mitigation measures that were implemented by the facility during construction of the concrete batch plant. Construction and ground disturbing activities for the proposed hot mix asphalt plant will be confined to within the property line of the existing concrete batch plant. Construction will not involve any expansion of the existing property line, and no additional ground beyond that previously studied in the cultural archaeological survey will be disturbed. Based on this information, the EPA concludes that the applicant has satisfactorily completed the historic property-related screening procedures, and that the Project will not have an adverse effect on historic properties.

Public Participation

Issuance of general permits, such as the HMA General Permit, under the Tribal Minor NSR Program must meet the public participation requirements described in 40 CFR 49.157. Before issuing a permit, including general permits, under the Tribal NSR program, the EPA must prepare a draft permit and must provide adequate public notice to ensure that the public has access to the draft permit information. For the HMA General Permit, the EPA provided public notice on January 14, 2014 that it intends to apply the requirements of the draft permit to any eligible source that seeks coverage under the HMA General Permit. See 79 Fed. Reg. 2546 (January 14, 2014). The EPA received multiple public comments on the draft permit. Following the close of the public comment period for the HMA General Permit, these comments were considered and addressed in the issuance of the final HMA General Permit, and can be found at the website link below. See 80 Fed. Reg. 25068 (May 1, 2015).

<http://www.epa.gov/tribal-air/general-permits-and-permits-rule-final-action-5-source-categories-april-17-2015>

Today's action represents the EPA's Approval of Yavapai-Apache Sand and Rock's Request for Coverage under the final HMA General Permit. This approval for coverage represents a final agency action and is not subject to public comment, but is subject to judicial review for the issue of whether the Project qualifies for coverage under the HMA General Permit. Any petition for review of this approval action must be filed in the United States Court of Appeals for the Ninth Circuit pursuant to CAA Section 307(b). The EPA's analysis of the applicant's request for coverage is publicly available as described in the following section.

Public Availability of Information

For coverage of a particular source under the HMA 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 Technical Support Document (TSD),

which will be made available, along with the EPA's Approval of Request for General Permit Coverage for the Project under the HMA 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 the EPA at the address or email listed below. All documents will be available for review at the EPA Region 9 office indicated below, during regular business hours. Due to building security procedures, please call least 24 hours in advance to arrange a visit.

Eugene Chen
U.S. Environmental Protection Agency, Region 9
Air Division, Permits Office
75 Hawthorne St. (AIR-3)
San Francisco, CA 94105
chen.eugene@epa.gov

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

Yavapai-Apache Nation
2400 West Datsi Street
Camp Verde, AZ 86322

Correspondence

All notifications and reports under this permit shall be sent to:

U.S. Environmental Protection Agency, Region 9
Enforcement Division, Air Enforcement Office
75 Hawthorne Street (ENF 2-1)
San Francisco, California, 94105
Email: AEO_R9@epa.gov