



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: Knife River Corporation
5450 West Gowan Road
Boise, Idaho 83709

Project Name: Gencor 400 Ultradrum Hot Mix Asphalt Plant – Hasselstrom Pit

Location: Hasselstrom Pit
Winchester Pit
Lewis County
Nez Perce Reservation
Latitude: 46.271° N; Longitude: 116.624° W

Source Contact: Joseph Smith, Regional Environmental Manager
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Date: January 21, 2021

Permit #: R10TNSR02400

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 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 (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 November 13, 2020, Region 10 received an initial Request for Coverage under the HMA General Permit from Knife River Corporation to construct and operate a hot mix asphalt (HMA) plant synthetic minor source on the Nez Perce Reservation (the Project). The request included one location, the Hasselstrom Pit, which is within the exterior boundaries of the Nez Perce Reservation in Idaho. Additional information was requested by Region 10 on December 7, 2020, and received on December 10, 2020.

Knife River plans to co-locate the HMA plant with a stone quarrying, crushing and screening (SQCS) plant owned and operated by Camas Gravel Company. Camas Gravel's SQCS approval was processed as a separate Region 10 action in October 2020. Knife River 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 distillate fuel oil (a type of diesel) fuel in the dryer/mixer.
- The dryer mixer is controlled by a baghouse.
- The auxiliary heaters will only use auxiliary heaters: natural gas, propane or distillate fuel and the maximum heat input capacity is less than 10 million BTUs per hour.
- No "stationary" engines or generators will be used.
- 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 Nez Perce Reservation at the location described on page 1 of this TSD (Hasselstrom Pit is about two miles north of Winchester, Idaho).

Project Description

The Hasselstrom Pit is a previously used quarry. Surface and mineral rights are owned by Eric Hasselstrom. Knife River has contracted with the owner to lease the site for the operation of the portable hot mix asphalt plant as a stationary source for "job-specific" work. The asphalt plant is temporary and will not be located on site for more than 12 months. It is possible that the permitted HMA plant could

return to the site at a later date for a separate construction project. The HMA plant has a design capacity of 400 tons per hour of hot mix.

Knife River has subcontracted with Camas Gravel Company to process the aggregate needed for the HMA plant. Camas Gravel has been approved for coverage under EPA’s SQCS general permit (Permit # R10TNSR02300) to operate at Hasselstrom Pit. Knife River has requested to be subject to the co-location requirements in the HMA General Permit.

Knife River HMA Plant: Affected Emission Units Covered by this Approval

ID #	Description of Affected Emission Units¹	Controls
1	HMA Drum Dryer/Mixer: I.D. #30.5531301; Gencor 400 Ultradrum Portable Asphalt Plant; counterflow design drum; 400 tons/hour capacity; RAP capability; 135 mmBtu/hr burner, fueled with natural gas, propane and distillate fuel oil; manufactured 2/26/2014	Gencor/CMI Model APM810 Baghouse
2	Aggregate Handling: aggregate to piles via trucks; from piles to drum dryer via loader, scale feeder I.D. #30.5532856, and 4-bin feeder I.D. #30.5612862; 400 tons/hour capacity; unknown construction date	None listed
3	RAP Handling: recycled asphalt to piles via trucks; to drum dryer via loader, RAP scale conveyor I.D. #30.5332857, and RAP feeder I.D. #30.5622863; 200 tons/hour RAP capacity; unknown construction date	None listed
4	Silo Filling: asphalt to silo from drum dryer via Drag Conveyor	None listed
5	Truck Loading and Fumes: asphalt load-out from silos to trucks and fumes from loaded truck bed while in plant	None listed
6	Vehicle Traffic: asphalt, aggregate and RAP trucks; diesel tanker trucks; loader for aggregate and RAP handling; passenger vehicles	None listed
7	Aggregate Storage Piles and Open Areas	None listed
8	Asphalt Oil Storage Tank: I.D. #30.5732870; 25,000 gallons asphalt oil; unknown installation date	None listed
9	Asphalt Oil Storage Tank: I.D. #30.0917055; 10,000 gallons asphalt oil; unknown installation date	None listed
10	Diesel Storage Tank: I.D. #30.7202223; 12,000 gallons diesel; unknown installation date	None listed
11	Auxiliary Heater: I.D. #30.5672866; GENCOR HYCGO-100; 1 mmBtu/hour; diesel/natural gas/propane fuel; unknown installation date	None listed

¹ Two diesel-fueled generators, claimed to be non-road engines, are listed in the application

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 Nez Perce Reservation is in attainment with the fine particulate (PM2.5) national ambient air quality standard (NAAQS) and “unclassified” for all other criteria pollutants. An area is unclassifiable when there is insufficient monitoring data to determine compliance with the NAAQS. The Nez Perce tribe operated a regulatory PM2.5 monitor in Kamiah from 2005 to 2007. The 24-hour PM2.5 design value for that period was 28 µg/m3, which is below the PM2.5 24-hour NAAQS of 35 µg/m3. Also, the annual average PM2.5 concentration for 2005 to 2007 was 9.6 µg/m3, which was in attainment with the annual PM2.5 NAAQS of 15 µg/m3. In a December 22, 2008 letter to the Nez Perce tribe, EPA declared that the Nez Perce reservation attained the PM2.5 NAAQS. Currently, measurements taken by a non-regulatory ambient air

monitor operating by the Nez Perce at the Kamiah site indicate that the area continues to attain the PM2.5 NAAQS.

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 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
NO _x	5	10
SO ₂	5	10
VOC	2	5
PM	5	10
PM ₁₀	1	5
PM _{2.5}	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.

When an HMA plant is co-located (two operations functioning as one source at the same location) with a SQCS facility, emissions from both sources must be totaled to determine the applicable permitting program. The HMA and SQCS 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

Our evaluation of whether the Project qualifies for coverage under the HMA General Permit included consideration of past compliance records and available emission testing results. In 2015, the emissions from the drum mixer (PM and opacity) were tested while using natural gas as fuel. The measured emissions were below the PM (0.0273 gr/dscf vs 0.04 gr/dscf limit) and opacity (0% vs 20% limit) limits in the HMA General Permit (there are no VOC or SO₂ emission limits in the General Permit). The permit requires sources testing the PM, CO and NO_x emissions from the drum dryer burner to confirm that the unit meets the permit limits.

Because the source testing in 2015 demonstrates that the Project’s emissions should meet the PM and opacity emission limits in the HMA General Permit and no other compliance records indicate that the source cannot comply with the limitations in the HMA General Permit, the source is eligible for coverage under the HMA 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 EPA that they have done so.

The Applicant’s Request for Coverage states that the Project meets Criterion B of Appendix A and included information previously submitted in support of the Camas Gravel SQCS general permit approval described earlier. That included (a) a letter describing the applicant’s analysis; (b) a map of the area and site; (c) the U.S. Fish and Wildlife Services (USFWS) website-produced list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by this proposed project; (d) an email from Idaho Fish and Game; (e) communications from the National Marine Fisheries Service (NMFS) within the National Oceanic and Atmospheric Administration and the Department of Commerce; and (f) a 2020 field assessment of the potential to impact Spaulding’s catchfly.

The USFWS website identified one threatened, endangered, or candidate species (Spalding's Catchfly - threatened) and listed the Golden Eagle as a bird of concern. Idaho Fish and Game noted that there were "no concerns from Idaho Fish and Game on this action." Related to the Camas Gravel SQCS project, Tribal wildlife department staff informed Region 10 that Spalding's Catchfly could be in the area, suggesting an assessment be done to confirm that. Working with the Applicant, a field assessment was performed on October 15, 2020. The assessment concluded the following: "No Spalding's catchfly plants were observed at the site. This entire project area has been plowed and used for annual grain production (probably for decades). No remnant native vegetation was observed within the footprint of the project area. Given this high level of intense disturbance, no Spalding's catchfly could be expected to persist under these conditions. This project will have No effect on Spalding's catchfly (*Silene spaldingii*)."

In their communications, NMFS concluded that the upstream extent of critical habitat for Snake River Basin steelhead is approximately 2.5 miles downstream from the gravel pit, noting that ephemeral first order streams in the vicinity of the gravel pit generally do not support fish. NMFS added that gravel operations at this location could potentially affect steelhead and critical habitat if the activities increase runoff/sediment delivery to Rock Creek or if fuel stored on site were to spill into Rock Creek. These potential effects might be avoided by ensuring that surface runoff and fuels are contained in a manner where they cannot enter Rock Creek. Dust and other air pollutants that might be created from operation of a HMA plant could potentially enter water in amounts that could affect fish or critical habitat. However, dust and other air pollutants may be too widely dispersed in the air to cause high concentrations of pollutants in water. An analysis of air pollutant dispersal might be used to determine if a risk to fish or critical habitat exists.

In response to the potential impacts, the permittee offered to take the following measures to ensure that critical habitat is protected from any potential impacts.

- The site will be included in a Stormwater Pollution Prevention Plan (SWPPP) created for the construction project. Coverage under the approved EPA discharge permit includes coverage for the site since the gravel source is specific to the construction project. Best Management Practices will be installed in accordance with the SWPPP to ensure compliance with the permit and to protect water quality.
- Although the ephemeral 1st order streams in the vicinity of the gravel pit generally do not support fish, Best Management Practices will be utilized on site to ensure that sediment laden runoff will remain on site and not impact receiving waters.
- Any fuels stored on site will be stored in accordance with the SWPPP, will be kept in secondary containment to contain pollutions in the event of a spill, and be stored away from areas where a spill may impact water quality.
- Hot mix asphalt operations will be temporary and air quality emissions will be minimal. Water controls will be used when the plant is in operation and the (Camas Gravel) crusher will be operated in accordance with NSPS, OOO and the air quality permit.
- Water and/or chemical controls will be used to control fugitive emissions of dust on the pit floor and stockpiles.

The project meets Criterion B if federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur within the action area of the Project, but the construction and operation of the Project is not likely to adversely affect listed threatened or endangered species or critical habitat. The selection of Criterion B may include consideration of any air pollution controls or

other changes to the construction and/or operation of the Project that the permittee will adopt to ensure that the Project is not likely to adversely affect listed species or critical 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 B 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 B because the listed species and/or critical habitats are likely to exist in the area, but the Project is not likely to adversely affect listed species or habitat.

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 a January 2020 Cultural Resource Inventory Report about the site produced by the Nez Perce Tribe Cultural Resource Program. On July 24, 2020, the Director of the Nez Perce Tribe Cultural Resource Program determined that, based on the previous survey information, no historic properties will be adversely impacted. On the Nez Perce Reservation, the Tribal Historic Preservation Officer (THPO) is the lead for the historical preservation program. In the January report recommendations was the statement that if cultural resources or human remains are inadvertently discovered during project implementation, work in the find location should halt immediately, the find protected until consultation with the Idaho Transportation Department and Nez Perce Tribe THPO is completed, and any appropriate avoidance, protection, or mitigation measures completed.

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 Camas Gravel's 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

The applicant sent an electronic copy of the HMA application and supporting information to the Nez Perce Tribe environmental staff on November 12, 2020. Region 10 forwarded the application to the Nez Perce Tribe's THPO on November 16, 2020. On December 10, 2020, the applicant sent to Tribal staff an electronic copy of the additional information submitted in response to Region 10's request. Tribal staff have not raised any concerns about the eligibility of the project to Region 10. A letter was sent by Region 10 to the Chairman of the Nez Perce Tribe on November 23, 2020, offering consultation on this Region 10 permitting action. Region 10 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 about November 16, 2020, 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).