

*How is ozone formed in the Uinta Basin?*

Ozone in the Uinta Basin is created by chemical reactions between oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) in the presence of sunlight. The NO<sub>x</sub> and VOC precursor emissions in the Uinta Basin are primarily emitted from oil and natural gas sources. Under certain winter conditions, with clear skies and when snow cover is present, strong inversions develop and can result in high levels of ozone. Breathing ozone can trigger a variety of health problems, including chest pain, coughing, throat irritation, and airway inflammation. It can also reduce lung function and harm lung tissue. Ozone can worsen bronchitis, emphysema, and asthma, leading to the need for increased medical care.

*Why did the EPA revise their ozone national ambient air quality standards (NAAQS)?*

The Clean Air Act (CAA) directs the EPA to set and review air quality standards for certain pollutants known as “criteria pollutants.” The EPA first established air quality standards for ozone in 1971 and subsequently revised the standards in 1979, 1997, 2008, and 2015 based on the most recently available scientific studies at the time. In October 2015, the EPA revised the level of the ozone NAAQS from 75 parts per billion (ppb) to 70 ppb to ensure the protection of public health and welfare (80 FR 65292). Compliance with this standard is determined based on a three-year average of the 4th highest daily peak 8-hour average ozone concentration measured at a monitor; a statistic known as a “design value.” Ozone nonattainment areas are classified by the severity of their problem based on air quality monitoring data, with classifications ranging from “Marginal” to “Extreme.” The Uinta Basin was designated at the Marginal classification based on a design value at the highest monitor (Ouray) of 80 ppb.

*How was the Uinta Basin nonattainment boundary determined?*

After the EPA establishes or revises an air quality standard, the agency follows a process prescribed by the CAA by which states and tribes recommend area designations (i.e., nonattainment, attainment, or unclassifiable) to the EPA. The EPA then evaluates their recommendations, air quality data, and other factors before making its proposed and final determinations regarding area designations. In the Uinta Basin, the EPA designated as nonattainment all areas within a contiguous external topographical elevation perimeter of 6,250 ft. This boundary includes all violating monitors and contributing sources in the area. The technical support document that contains EPA’s analysis can be found here: [https://www.epa.gov/sites/production/files/2018-05/documents/ut\\_tsd\\_final.pdf](https://www.epa.gov/sites/production/files/2018-05/documents/ut_tsd_final.pdf).

*Who is responsible for implementing the ozone NAAQS?*

Implementation of the NAAQS is a shared responsibility of the EPA, states and tribes. In the Uinta Basin, the EPA will work closely with the State of Utah and the Ute Indian Tribe to ensure that all requirements are met and that progress is made towards attaining the ozone NAAQS.

*What are the requirements for Marginal nonattainment areas?*

The EPA has not finalized its Implementation Rule for the 2015 ozone NAAQS. When it is completed, it will describe the specific requirements for nonattainment areas. However, based on the proposed rule and on the requirements of the CAA, the expected requirements for Marginal ozone nonattainment

areas include: nonattainment New Source Review permitting, transportation conformity, general conformity, emissions inventory, and emission statement.

**Nonattainment New Source Review (NNSR)** refers to the permitting requirements in CAA section 173. For Marginal ozone nonattainment areas, a “major source” is defined as having the “potential to emit” 100 tons per year (tpy) or more of NO<sub>x</sub> or VOC. Under NNSR, a permit to construct is required in a nonattainment area for any new major source with a proposed emission increase of NO<sub>x</sub> or VOC of 100 tpy or more, or for any existing major source with a proposed net emission increase of NO<sub>x</sub> or VOC of 40 tpy or more. In addition, a major NNSR permit to construct is also required at existing minor sources proposing emission increases of NO<sub>x</sub> or VOC of 100 tpy or more. As part of the permit, the source must meet several requirements. The proposed source must comply with the “lowest achievable emissions rate” (LAER), and obtain emissions reduction offsets from elsewhere within the same nonattainment area.

For Marginal ozone nonattainment areas, the offset requirement must be met at a ratio of 1 to 1.1; that is, for every new ton of proposed VOC emissions, the source must reduce 1.1 tons of VOC emissions. Offsets must be real, surplus, permanent, enforceable and quantifiable. If no offset bank has been established, those offsets must be obtained on an individual basis.

Minor sources on Ute Tribal lands in the Marginal ozone nonattainment area that are not proposing an emissions increase of NO<sub>x</sub> or VOC over 100 tpy must instead obtain a minor NSR permit if they trigger the lower thresholds: 2 tpy for VOC and 5 tpy for NO<sub>x</sub>. For minor NSR permits in tribal areas, the permitting authority must demonstrate that the source will not cause or contribute to a NAAQS violation, and may require the source to reduce or mitigate any identified potential impacts.

**“Conformity”** refers to the requirement under section 176 of the CAA that federal actions – which include not only projects the federal government undertakes, but also those projects by others that it supports, provides financial assistance for, licenses, permits, or approves – cannot:

- Cause or contribute to any new violation of any NAAQS in any area;
- Increase the frequency or severity of any existing violation of any NAAQS in any area; or
- Delay timely attainment of any NAAQS or any required interim emission reductions or other milestones in any area.

Each federal agency is required to determine that its actions within a nonattainment or maintenance<sup>1</sup> area will conform to the SIP, federal implementation plan (FIP), or tribal implementation plan (TIP) (as applicable) before proceeding with the action. In the Uinta Basin, general conformity will apply within the nonattainment boundary beginning on August 3, 2019 (one year after the effective date of designations). The relevant federal agency will have to determine whether any action it takes in the area will result in emissions of ozone precursors that are below de minimis thresholds or otherwise exempt, and if not, the federal agency will be required to have a conformity demonstration completed before it begins the action, which may require emissions offsets for certain activities. Discussions are ongoing between the EPA, BLM, and other federal agencies about how conformity will be demonstrated in the

---

<sup>1</sup> *Maintenance area* means an area that was designated as nonattainment and has been re-designated in 40 CFR part 81 to attainment, meeting the provisions of section 107(d)(3)(E) of the Act, and has a maintenance plan approved under section 175A of the Act.

various jurisdictions and how federal permitting and New Source Review rules will impact general conformity in the Uinta Basin.

**Transportation conformity** only applies in urbanized areas with populations greater than 200,000; so, it will not be a relevant requirement for the Uinta Basin.

**Emissions Inventory & Emissions Statements:** An **emissions inventory** is required that includes information for all emissions sources within the nonattainment area for a specific base year (a year which will be determined when the EPA finalizes the Ozone Implementation Rule). This requirement is supported by the **emissions statement rule** requirement, which authorizes the State to collect emissions inventory information on State land.

*Can the Uinta Basin be redesignated to attainment?*

Yes, the attainment date for Marginal nonattainment areas is August 3, 2021 (three years after effective date of designation). Within six months of that date, the EPA will review available monitoring data from the three most recent years of complete and certified data – CY 2018 through CY 2020. If the design value (average of fourth-highest values) is less than 70 ppb, the area will be considered to be attaining; the EPA may then make a determination of “attainment.” The state or tribe could also request redesignation earlier than that if they can provide three years of monitoring data demonstrating the area is attaining the 2015 ozone standard. In either case, the state would submit a “maintenance plan” SIP to EPA and formally request that the area be redesignated to attainment. In that case, as a “maintenance area” the Uinta Basin would still be subject to some requirements – including general conformity and emissions inventory – for two consecutive ten-year periods.

*What happens if the Uinta Basin is still violating the NAAQS in 2021?*

If the design value in 2021 is above the NAAQS (70 ppb) when the EPA reviews air quality data as explained above, the EPA would determine that the area did not attain the standard by the attainment date and the area would be reclassified as a Moderate nonattainment area as a matter of law under the Clean Air Act. If this happens, requirements applicable at the Moderate classification would apply. These include:

- All Marginal area requirements;
- Moderate area NNSR permitting rules;
  - The threshold for major source remains at 100 tons per year, but the required offsets would increase to 1.15.
- Attainment demonstration;
  - The EPA, State, and Tribe would work together to develop a plan to attain the NAAQS by the new attainment date (August 3, 2024). This would include modeling showing that reductions achieved through required controls will result in attainment.
- Reasonable further progress (RFP) demonstration (15% reduction in VOC emissions; 3% per year);
- Reasonably available control technology (RACT) for major sources of NO<sub>x</sub>;
- RACT for major sources of VOC;
- RACT for VOC sources covered by an EPA control technique guideline (CTG) document;

- The EPA has proposed repealing the oil and natural gas CTG. If this happens, it is likely that the State and the Tribe will still need to promulgate controls on existing sources to meet the RFP requirement, which could be controls equivalent to those in place for existing sources on State-managed land operating under the State's permit by rule.