
***Normally Pressured Lance Natural Gas
Development Project
Final Environmental Impact Statement***

Appendix M

General Conformity Determination

NORMALLY PRESSURED LANCE NATURAL GAS DEVELOPMENT PROJECT

GENERAL CONFORMITY DETERMINATION

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List of Acronyms and Abbreviations

BLM	Bureau of Land Management
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DOI	United States Department of the Interior
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
FR	Federal Register
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
NPL	Normally Pressured Lance
NSR	New Source Review
O ₃	Ozone
PM ₁₀	Particulate matter less than 10 microns in diameter
PM _{2.5}	Particulate matter less than 2.5 microns in diameter
SO ₂	Sulfur Dioxide
SIP	State Implementation Plan
UGRB	Upper Green River Basin
VOC	Volatile Organic Compound
WAQSR	Wyoming Air Quality Standards and Regulations

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APPENDIX M

NPL PROJECT CONFORMITY DETERMINATION

1.0 INTRODUCTION

Section 176(c)(1) of the Clean Air Act (CAA) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses, or permits, or approves any activity, to demonstrate that the action conforms to the applicable State Implementation Plan (SIP) for achieving and maintaining the National Ambient Air Quality Standards (NAAQS) for criteria pollutants before the action is otherwise approved (General Conformity Rule). Section 176(c)(1) also assigns primary oversight responsibility for conformity assurance to the agencies themselves, not to the United States Environmental Protection Agency (U.S. EPA) or the states. Specifically, for there to be conformity, a federal action must not contribute to new violations of standards for ambient air quality, increase the frequency or severity of existing violations, or delay timely attainment of standards in the area of concern. A General Conformity evaluation is required for project-related direct and indirect net emissions of criteria pollutants and their precursors in nonattainment or maintenance areas. The CAA defines nonattainment areas as geographic regions designated as not meeting one or more of the NAAQS.

A SIP is a state's compilation of its air quality control plans and rules that will be implemented to achieve compliance with the NAAQS. Criteria pollutants are six major air pollutants for which the U.S. EPA has established NAAQS. These pollutants are ozone (O₃), particulate matter (particulate matter less than 10 microns in diameter [PM₁₀] and particulate matter less than 2.5 microns in diameter [PM_{2.5}]), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead.

As a result of the 2012 ozone nonattainment designation of Wyoming's Upper Green River Basin, the BLM and other federal agencies within the area must comply with the General Conformity regulations in 40 CFR 93 Subpart B and Chapter 8, Section 3 of the Wyoming Air Quality Standards and Regulations (WAQSR). Per these regulations, federal agencies must demonstrate that new actions occurring within the nonattainment area will conform with the Wyoming State Implementation Plan either through an applicability analysis to demonstrate that the total of direct and indirect emissions from the proposed federal action do not exceed the de minimis emission levels specified in WAQSR Chapter 8, Section 3 or through a conformity determination if approval of the federal action will exceed the de minimis emission levels of 100 tons/year of nitrogen oxides (NO_x) or volatile organic compounds (VOC), the precursor pollutants that form ozone in the atmosphere. Federal actions estimated to have an annual net emissions increase less than the de minimis levels are not required to demonstrate conformity under the General Conformity regulations. In addition, any portion of the project or action that is permitted under the State of Wyoming's New Source Review (NSR) program are excluded from the agency's general conformity analysis per Chapter 8, Section 3 of the WAQSR.

The EPA issued a Final Rule on May 4, 2016, effective June 3, 2016, that included a Determination of Attainment for the UGRB by the attainment date of July 20, 2015 for marginal nonattainment areas. This Determination of Attainment does not constitute a re-designation of attainment. BLM and other federal agencies within the area must continue to comply with General Conformity regulations while the WDEQ meets a number of additional statutory criteria for the UGRB to be re-designated in attainment.

The proposed Normally Pressured Lance (NPL) project is located on BLM-managed land within the Upper Green River Basin ozone nonattainment area. The Project is considered a major federal action that, under the National Environmental Policy Act (NEPA), requires an Environmental Impact Statement (EIS) and a conformity analysis before the project can be authorized by the agency. The BLM has estimated the annual project emissions that would be subject to General Conformity in order to determine if the net emissions of these pollutants are above the General Conformity *de minimis* thresholds, and thus subject to the General Conformity Rule. This draft General Conformity Determination for the NPL project provides the BLM's analysis of the proposed action emissions as well as the BLM's Conformity analysis for the project.

2.0 GENERAL CONFORMITY RULE

The General Conformity regulations establish certain procedural requirements that must be followed when preparing a General Conformity Determination. This section addresses the regulatory background, requirements, and processes of the General Conformity Rule.

2.1 GENERAL CONFORMITY REGULATORY BACKGROUND

The U.S. EPA promulgated the General Conformity Rule on November 30, 1993 to implement the conformity provision of Title I, Section 176(c) of the federal CAA (42 U.S.C. § 7506(c)). Section 176(c)(1) requires that the federal government not engage, support, or provide financial assistance for permit or license, or approve any activity that fails to conform to an approved SIP.

The General Conformity Rule is codified in 40 Code of Federal Regulations (CFR) Part 93 (40 CFR 93), Subpart B, "*Determining Conformity of General Federal Actions to State or Federal Implementation Plans*". The General Conformity Rule applies to all federal actions, except programs and projects that require funds or approval from the U.S. Department of Transportation (U.S. DOT), the Federal Highway Administration (FHWA), or the Federal Transit Administration (FTA). In lieu of a General Conformity analysis, these latter types of programs and projects must comply with the Transportation Conformity Rule promulgated by U.S. DOT on November 24, 1993 (58 FR 62197). The federal General Conformity Rule is often incorporated into the state regulations. The State of Wyoming has incorporated the federal regulation into the Wyoming Air Quality Standards and Regulations (WAQSR) Chapter 8, Section 3: *Conformity of general federal actions to state implementation plans*, and therefore, the state has primacy and authority to enforce the General Conformity regulations.

2.2 GENERAL CONFORMITY REQUIREMENTS

As defined in the CAA, conformity means to uphold air quality goals through reduction or elimination of NAAQS violations. Accordingly, the Federal agency must demonstrate that the proposed action or activity achieves conformity by demonstrating that the associated emissions will not:

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

The General Conformity Rule allows for conformity analysis in coordination with and as part of the NEPA environmental review process. The General Conformity Rule affects air pollutant emissions associated with actions that are federally funded, licensed, permitted, or approved; and ensures the net emissions do not contribute to air quality degradation, or prevent the achievement of state and federal air quality goals. In short, General Conformity, if applicable, refers to the process to evaluate plans, programs, and projects to determine and demonstrate that they satisfy the requirements of the CAA and the SIP.

2.3 GENERAL CONFORMITY PROCESSES

The process to evaluate General Conformity for a proposed federal action involves the General Conformity applicability review and analysis, the General Conformity evaluation and determination process, and the General Conformity Determination draft review process. The applicability review process and analysis is required for any federal action (if it is not exempt) that would contribute pollutant emissions within the nonattainment area. A Conformity Determination is required for each criteria pollutant and its precursors where the total of direct and indirect net annual emissions in a nonattainment or maintenance area would equal or exceed the General Conformity *de minimis* thresholds. The *de minimis* thresholds are based on the severity of the nonattainment status. The Upper Green River Basin, was designated as marginal nonattainment for ozone (2008 standard) by the U.S. EPA, thus the applicable *de minimis* thresholds for the ozone precursors of NO_x and VOC are 100 tons per year for any Federal action. The Federal agency must prepare a draft Conformity determination which must be made publicly available for review and comment before the agency issues the final determination and decision for the Federal action.

Based on the regulatory definitions, direct emissions are caused by the action itself, such as the emissions from the construction of a facility. Indirect emissions are also caused by the action, but are removed from the action in either time or space. For example, emissions from employees commuting to a facility are indirect emissions. The General Conformity analysis for the NPL project is based on the total direct and indirect net emissions from the proposed action excluding emission sources that are permitted through WDEQ's NSR Permit Program. Since the NPL project spans many years, the year during which the emissions for the proposed action are projected to be the greatest on an annual basis was calculated and evaluated for the General Conformity analysis.

3.0 NPL PROJECT EMISSIONS

Ozone precursor emissions of NO_x and VOC were calculated for each year of the project development and the year of maximum emissions for the NPL project was evaluated for General Conformity. Emissions from construction, drilling, and the operational phase of the project are included in the BLM's Conformity analysis excluding emission sources that are permitted through WDEQ's NSR Permit Program. Since Jonah Energy has a federally-enforceable drill rig permit (Air Quality Permit CT-8122A2) issued by the WDEQ through the New Source Review program, drill rig emissions from the proposed action are presumed to conform and were also excluded from the BLM's Conformity analysis.

The original proposed drilling schedule of up to 350 wells per year resulted in estimated NO_x emissions that exceeded the 100 tpy *de minimis* emission threshold even after the exclusion of permitted sources. The primary emission source causing the exceedance of the *de minimis* threshold are the completion rigs (based on drilling 350 wells per year).

The following emission sources are permitted by the WDEQ under the authority of Chapter 6, Section 2 of the WAQSR, and were excluded from the BLM's Conformity analysis per Chapter 8, Section 3: *Conformity of general federal actions to state implementation plans*

- Storage tanks
- Dehydration units
- Pneumatic equipment
- Separation vessels
- Truck loading
- Fugitives
- Process heaters
- Green completions
- Blowdowns

4.0 GENERAL CONFORMITY ANALYSIS

The General Conformity regulation provides options available for a Federal agency to demonstrate conformity for a Federal action, such as fully offsetting new emissions resulting in a no-net increase or the State regulatory authority for air quality can develop an emissions budget for a nonattainment area and/or incorporate Federal agency actions into the SIP. However, the requirements for Marginal nonattainment areas do not require preparation of an emissions budget or nonattainment SIP. The BLM and WDEQ have worked cooperatively to address General Conformity requirements in the UGRB for several years utilizing the annual *de minimis* emissions thresholds for NO_x and VOCs. The only option available at this time to demonstrate conformity for the NPL project is for the BLM to reduce and limit the pace of development in order to not exceed the annual *de-minimis* emissions thresholds for NO_x and VOCs.

In order to accomplish this and determine what level of development can be authorized in the Record of Decision, the BLM conducted an analysis to determine the allowable number of wells

that could be drilled in the NPL project area while still meeting the NO_x and VOC emission threshold of 100 tons per year (tpy) for each pollutant. For the purposes of the BLM's General Conformity analysis, the following emission sources were quantified since these sources are not permitted through WDEQ's NSR Permit Program:

- Construction Mobile Equipment
- Drill Rig Mobile Equipment
- Completion Rigs
- Completion Mobile Equipment
- Workovers
- Production Mobile Equipment
- Employee and Workforce Commuting Traffic for all Phases of Development

For the Conformity emission inventory (see Attachment A), proposed well and pad counts were reduced in the proposed action inventory until the de minimis emission threshold was reached. The reduced schedule includes drilling up to 160 wells per year and construction of 10 well pads per year. This reduces the estimated NO_x emissions to 97.7 tons/year in the maximum year. Annual emission totals for the Conformity emission inventory are provided in Table 1. The complete emissions inventory developed for the Conformity determination is included as Attachment A. In modifying the original proposed action emission inventory to estimate the annual number of wells for the conformity threshold comparison, the following assumptions and modifications were made:

- The original proposed action inventory was modified to allow for the computation of the number of pads needed per year to accommodate the proposed number of wells. Based on the configuration of 16 wells per pad, 10 pads per year would be allowed.
- The ramp-up period for well drilling was changed from the original proposed values of 60, 180, and 240 wells per year for the first 3 years and 350 wells per year for all remaining years, to 60 wells per year in Year 1 and 160 wells per year in Years 2-10.
- The number of facilities and the construction schedule for facilities and other infrastructure (roads, pipelines, etc.) were analyzed at the same emissions levels as the original proposed action. However, emissions for these activities are likely to decrease as well due to the reduction in well pads and wells drilled annually.
- Although production rates and throughput would be expected to decrease with the decreased schedule of well development, production rates, traffic, and other indirect emission sources were also held at the same emission levels as the proposed action for the purposes of this analysis to ensure a conservative estimate.

Table 1. ANNUAL EMISSION TOTALS FOR GENERAL CONFORMITY DEVELOPMENT SCENARIO

Year	CO	NOx	PM10	PM2.5	SO2	VOC
1	42.8	49.5	234.2	33.9	1.7	58.9
2	51.0	97.7	461.2	66.3	3.9	58.5
3	49.0	96.7	444.8	64.4	3.9	55.7
4	48.1	97.5	461.1	66.2	3.9	58.5
5	45.8	95.5	428.4	62.6	3.8	52.6
6	45.2	96.4	444.7	64.4	3.9	55.5
7	44.3	96.3	444.7	64.4	3.9	55.4
8	43.0	95.4	428.3	62.6	3.8	52.6
9	42.6	96.2	444.7	64.4	3.9	55.3
10	41.5	95.3	428.3	62.6	3.8	52.6

Source: Refer to NPL EIS Appendix L (Air Quality TSD)

5.0 GENERAL CONFORMITY DETERMINATION

Based on the BLM’s General Conformity Development Scenario of 160 wells/years, the NPL project can be authorized at a reduced pace of development and demonstrate Conformity with the Wyoming SIP. This Conformity Determination can be revised in the future if the operator can demonstrate additional reductions in NOx emissions from the project or the State of Wyoming develops an emissions budget for the nonattainment area that is inclusive of the NPL project emissions. Either case will require the BLM to prepare a new Draft Conformity Determination for the project and require a public notice and comment period.

6.0 REFERENCES

URS Corporation. (October 2012). *CALNEV PIPELINE EXPANSION PROJECT: DRAFT CONFORMITY DETERMINATION*. La Jolla, CA.

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**ATTACHMENT A. NPL PROJECT GENERAL CONFORMITY EMISSIONS
CALCULATIONS**

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