Statement of Basis

Tier I Operating Permit No. T1-2020.0029
Project ID 62761

P4 Production LLC
Soda Springs, Idaho

Facility ID 029-00001

Final

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Permit Writer

The purpose of this Statement of Basis is to set forth the legal and factual basis for the Tier I operating permit terms and conditions, including references to the applicable statutory or regulatory provisions for the terms and conditions, as required by IDAPA 58.01.01.362
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1. **ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE**

acfm  actual cubic feet per minute  
ASTM  American Society for Testing and Materials  
BACT  Best Available Control Technology  
BMP  best management practices  
Btu  British thermal unit  
CAA  Clean Air Act  
CAM  Compliance Assurance Monitoring  
CEMS  continuous emission monitoring systems  
cfm  cubic feet per minute  
CFR  Code of Federal Regulations  
CI  compression ignition  
CMS  continuous monitoring systems  
CO  carbon monoxide  
CO₂  carbon dioxide  
CO₂e  CO₂ equivalent emissions  
COMS  continuous opacity monitoring systems  
DEQ  Department of Environmental Quality  
dscf  dry standard cubic feet  
EPA  U.S. Environmental Protection Agency  
GHG  greenhouse gases  
gph  gallons per hour  
gpm  gallons per minute  
gr  grains (1 lb = 7,000 grains)  
HAP  hazardous air pollutants  
HHV  higher heating value  
hp  horsepower  
hr/yr  hours per consecutive 12 calendar month period  
ICE  internal combustion engines  
IDAPA  a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act  
iwg  inches of water gauge  
km  kilometers  
lb/hr  pounds per hour  
m  meters  
MACT  Maximum Achievable Control Technology  
mg/dscm  milligrams per dry standard cubic meter  
MMBtu  million British thermal units  
MMscf  million standard cubic feet  
MRRR  Monitoring, Recordkeeping and Reporting Requirements  
NESHAP  National Emission Standards for Hazardous Air Pollutants  
NO₂  nitrogen dioxide  
NOₓ  nitrogen oxides  
NSPS  New Source Performance Standards  
O&M  operation and maintenance  
O₂  oxygen  
PC  permit condition  
PM  particulate matter  
PM₂.₅  particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
2. INTRODUCTION AND APPLICABILITY

P4 Production LLC is a manufacturer of elemental phosphorus and is located at 1853 Highway 34 North Soda Springs, Idaho. The facility is classified as a major facility, as defined by IDAPA 58.01.01.008.10.c, because it emits or has the potential to emit sulfur dioxide and carbon monoxide above the major source threshold of 100 tons-per-year.

P4 Production LLC is subject to SO₂ performance tests for the kiln hydro-sonic scrubbers. This requirement was inadvertently left out of the Tier I permit that was issued November 5, 2019, and carried forward into the renewal that was issued April 30, 2021. This permit is being issued in accordance with 58.01.01.381.02.c.

3. APPLICATION SCOPE AND APPLICATION CHRONOLOGY

3.1 Application Scope

P4 Production LLC is subject to SO₂ performance tests for the kiln hydro-sonic scrubbers. This requirement was inadvertently left out of the Tier I permit that was issued November 5, 2019, and carried forward into the renewal that was issued April 30, 2021. This Tier I administrative amendment permitting action reincorporates the SO₂ performance tests for the kiln hydro-sonic scrubbers as well as correct typographical errors.

3.2 Application Chronology

December 7, 2021 DEQ initiated a Tier I Operating Permit Administrative Amendment.
December 15, 2021  DEQ made available the draft permit and statement of basis for peer and regional office review.

December 23, 2021  DEQ issued the final permit and statement of basis.

4.  REGULATORY REVIEW

This permitting action does not change the regulatory review for this facility. Please refer to the statement of basis issued April 30, 2021, for the current regulatory review.

5.  REVISED PERMIT CONDITIONS

This section describes the permit conditions for this administratively amended permit that have been added, revised, modified, or deleted as a result of this permitting action.

Table 4.2, Foot Note a)
Change the permit condition under this foot note from 4.3 to 4.1, as permit condition listed in Table 4.2 is 4.1.

Permit Condition 4.20
This permit condition was revised to replace, “Within 60 days after startup” with, “The permittee shall”, because this timeframe no longer applies to the facility as the facility has meet the original 60 day timeline.

Permit Condition 4.21
The first paragraph was given a bullet point to be consistent with the other two bulleted paragraphs under this permit condition.

Permit Condition 4.25
SO₂ Performance Tests for Kiln Hydro-Sonic Scrubbers, was reincorporated into this permitting action because it was inadvertently left out of the Tier I permit that was issued November 5, 2019, and carried forward into the renewal that was issued April 30, 2021. This permitting action reincorporates the SO₂ performance tests for the kiln hydro-sonic scrubbers. Due to the reincorporation of this permit condition, previous permit conditions 4.25 and 4.26 are now 4.26 and 4.27.

All other permit conditions remain unchanged.

6.  PUBLIC COMMENT

In accordance with IDAPA 58.01.01.381.02.c, a public comment period is not required for an administrative amendment.

7.  EPA REVIEW OF PROPOSED PERMIT

In accordance with IDAPA 58.01.01.381.02.c, EPA review of the proposed permit is not required. EPA will be provided a copy of the revised permit.