Statement of Basis

Tier I Operating Permit No. T1-2016.0017
Project ID 62770

Amalgamated Sugar Company - Twin Falls
Twin Falls, Idaho

Facility ID 083-00001

Final

January 21, 2022

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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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APPENDIX A - FACILITY COMMENTS ON DRAFT PERMIT
1. **ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE**

acfm  actual cubic feet per minute
ASC  Amalgamated Sugar Company
ASTM  American Society for Testing and Materials
Btu  British thermal unit
CAA  Clean Air Act
cfm  cubic feet per minute
CFR  Code of Federal Regulations
CO  carbon monoxide
CO₂  carbon dioxide
CO₂e  CO₂ equivalent emissions
DEQ  Department of Environmental Quality
dscf  dry standard cubic feet
EPA  U.S. Environmental Protection Agency
FW  Foster Wheeler Boiler
GHG  greenhouse gases
gph  gallons per hour
gpm  gallons per minute
gr  grains (1 lb = 7,000 grains)
HAP  hazardous air pollutants
hp  horsepower
hr/yr  hours per consecutive 12 calendar month period
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
PM₅.₅  particulate matter with an aerodynamic diameter less than or equal to a nominal 2.₅ micrometers
PM₁₀  particulate matter with an aerodynamic diameter less than or equal to a nominal 1₀ micrometers
ppm  parts per million
ppmw  parts per million by weight
PSD  Prevention of Significant Deterioration
psig  pounds per square inch gauge
PTC  permit to construct
PTE  potential to emit
2. INTRODUCTION AND APPLICABILITY

Amalgamated Sugar Company – Twin Falls Facility (ASC) is a manufacturer of beet sugar, and is located at 2320 Orchard Drive East in Twin Falls. 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 PM, PM$_{10}$, SO$_2$, NO$_x$, and CO above the major source threshold of 100 tons-per-year and has the potential to emit over 100,000 tons-per-year CO$_{2e}$ of greenhouse gas pollutants. The facility is also classified as a major facility, as defined by Subsection 008.10.a, because it emits or has the potential to emit methanol and hydrochloric acid above the major source thresholds of 10 tons-per-year for any single HAP and/or 25 tons-per-year for any combination of HAP.

IDAPA 58.01.01.362 requires that as part of its review of the Tier I application, DEQ shall prepare a technical memorandum (i.e. statement of basis) that sets forth the legal and factual basis for the draft Tier I operating permit terms and conditions including reference to the applicable statutory provisions or the draft denial. This document provides the basis for the draft Tier I operating permit for ASC.

The facility currently operates three boilers. ASC has requested that coal be removed as an allowable fuel source for the Foster Wheeler (FW) boiler by December 31, 2022.

3. APPLICATION SCOPE AND APPLICATION CHRONOLOGY

3.1 Application Scope

This permit is an administrative amendment of the facility's currently effective Tier I operating permit to remove coal as an allowable fuel for the FW boiler by December 31, 2022. ASC will convert the stoker coal-fired FW boiler to natural gas-firing only. The stoker grate system will be removed and replaced with four wall-fired natural gas low NOx burners. The existing FW boiler baghouse (A-B1) will also be removed. The exhaust will continue to pass through the existing stack.

3.2 Application Chronology

- December 16, 2021: DEQ received an application.
- December 20, 2021: DEQ made available the draft permit and statement of basis for applicant review.
- January 13, 2022: DEQ made available the draft permit and statement of basis for a second applicant review.
- January 21, 2022: DEQ issued the final permit and statement of basis.
4. EMISSIONS INVENTORY

Upon completion of the boiler conversion project to permanently disable the coal feed system for the FW boiler, no apparent increase in federally-regulated air pollutants is expected, with the exception of a small increase in volatile organic compounds (VOC). The emission inventory for the facility will be updated in the Tier I operating permit at the time of renewal (September of 2022). For a PSD analysis of the project please see Project 62732.

5. REGULATORY REVIEW

5.1 NSPS / MACT Applicability (40 CFR 63)

The facility is subject to the requirements of 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The Foster Wheeler Boiler (FW), Babcock & Wilcox Boiler (B&W), and Keeler Boiler are affected facilities subject to MACT requirements. The FW boiler is also subject to 40 CFR 60 Subpart D – New Source Performance Standards for Fossil Fuel Fired Steam Generators constructed after August 17, 1971.

The MACT requirements will be revised for the FW boiler once the boiler has been converted from coal-fired to natural gas fired. With the removal of coal as an allowable fuel, the FW boiler will be classified as only a boiler that is designed to burn gas 1 fuels and the requirements for the FW boiler will change. These changes will be reflected in the Tier I operating permit at the time of renewal (September of 2022). The NSPS requirements will also be re-evaluated at the time of renewal.

6. REVISED PERMIT CONDITIONS

Revised Table 2.1

Table 2.1 has been revised to include notes that on January 1, 2023 the fuel source for the FW boiler will be natural gas only and that Baghouse (A-B1) will no longer be needed as a control device.

Revised Table 4.2

Table 4.2 has been revised to add that on and after January 1, 2023 the fuel source for the FW boiler is natural gas only.

Revised Permit Condition 4.9

Permit condition 4.9 has been revised to add that on and after January 1, 2023 the FW boiler shall be fueled exclusively by natural gas and Baghouse (A-B1) will no longer be needed as a control device.

7. PUBLIC COMMENT

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

8. 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 final revised permit.
Appendix A - Facility Comments on Draft Permit
The following comments were received from the facility on January 12, 2022:

**Facility Comment:** Table 2.1 Foster Wheeler Boiler Baghouse (A-B1) - This year, the facility is **not** planning on removing this baghouse (A-B1). The baghouse is not needed as an emissions control device when firing natural gas so it can be deleted from the permit. Furthermore, the coal firing stoker system will be removed as part of the natural gas conversion project preventing any coal firing within this boiler.

**DEQ Response:** DEQ has revised Table 2.1 to note the following for the Foster Wheeler Boiler Baghouse (A-B1): (Note that after December 31, 2022 the baghouse will not be needed as a control device). Permit condition 4.9 was also revised to state that Baghouse A-B1 is no longer needed as a control device when fired on natural gas.

**Facility Comment:** Table 3.1/Condition 3.15 – Typo. The coal only PM grain loading limit is incorrect and needs to be changed to 0.100 gr/dscf corrected to 8% O₂ per IDAPA 58.01.01.677.

**DEQ Response:** Table 3.1 and permit condition 3.15 were revised to align with permit condition 4.8.