



# **Air Quality Permitting Statement of Basis**

April 3, 2006

**Tier I Operating Permit No. T1-050020**

**Amalgamated Sugar Company, LLC Nampa Facility  
Nampa, Idaho**

**Facility ID No. 027-00010**

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**FINAL**

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## Acronyms, Units, and Chemical Nomenclature

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
HAPs	Hazardous Air Pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
MACT	Maximum Available Control Technologies
NESHAP	National Emission Standards for Hazardous Air Pollutants
NH <sub>3</sub>	ammonia
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
PM <sub>10</sub>	particulate matter with an aerodynamic diameter of ten micrometers or less
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
Rules	Rules for the control of Air Pollution in Idaho
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
TASCO	The Amalgamated Sugar Co. LLC
VOC	volatile organic compound

## 1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.362, Rules for the Control of Air Pollution in Idaho, for issuing Tier I operating permits.

## 2. FACILITY DESCRIPTION

The Amalgamated Sugar Company LLC (TASCO), Nampa facility is a beet sugar manufacturing plant.

## 3. FACILITY / AREA CLASSIFICATION

This facility is a major facility in accordance with IDAPA 58.01.01.008.10(c) and IDAPA 58.01.01.205 because it emits or has the potential emit a regulated air pollutant or air pollutants in amount greater than or equal to the applicable major source thresholds. The facility is not a major facility for HAP emissions. The steam plant (B&W Boilers No. 1 and No. 2, Riley Boiler, and Union Boiler) is a designated facility in accordance with IDAPA 58.01.01.006.27(v).

The facility is not currently subject to federal NSPS requirements in accordance with 40 CFR 60, NESHAP requirements in accordance with 40 CFR 61, or MACT standards in accordance with 40 CFR 63. The SIC code defining the facility is 2063 and the AIRS/AFS classifications is A.

This facility is located in Nampa, which is in Canyon County, AQCR 64 and UTM zone 11. This area is classified as unclassifiable for all criteria pollutants, although Canyon County is located in the Treasure Valley Air Shed Management Plan area.

The AIRS information provided in Section 9 defines the classification for each regulated air pollutant at TASCO, Nampa Facility. This required information is entered into EPA AIRS database.

## 4. APPLICATION SCOPE

The applicant requested the following changes be made to their Tier I and Tier II operating permits (OP). The Tier II OP was issued on March 8, 2006. The Tier I OP incorporated the Tier II OP.

- To remove the requirement to operate the high volume PM<sub>10</sub> monitoring equipment
- To correct the process weight equations for the pulp dryers

### 4.1 *Application Chronology*

April 22, 2005	DEQ received an application to remove the requirement to operate the high volume PM <sub>10</sub> monitoring equipment from TASCO's initial Tier I operating permit
May 20, 2005	DEQ declared the application complete
July 20, 2005	DEQ received an application requesting that DEQ correct the process weight equations for the pulp dryers
July 22, 2005	DEQ declared the application complete
October 12, 2005	DEQ provides draft permit to the facility and to DEQ's Boise Regional Office for review

October 21, 2005      DEQ received TASCOS comments  
March 3, 2006      Proposed permit was sent to EPA for review

## **5. PERMIT ANALYSIS**

This section of the Statement of Basis describes the regulatory requirements for this permit action.

### **5.1 Emissions Inventory**

This permitting action does not affect the facility's emissions. Therefore, an updated emissions inventory is not required.

### **5.2 Regulatory Review**

This section describes the regulatory analysis of the applicable air quality rules with respect to this Tier I operating permit.

#### **IDAPA 58.01.01.382      *Significant Permit Modifications***

This permitting action is a significant permit modification because it is a relaxation of a monitoring requirement – discontinue operation and data collection from the high volume PM<sub>10</sub> sampler. The data collected from this monitor over a period of five calendar quarters is a close match of the data collected from the PM<sub>10</sub> TEOM continuous monitor. Because the PM<sub>10</sub> data collected by the two monitoring systems is almost identical, DEQ concurs with TASCOS request to discontinue operation and data collection. However, DEQ is requiring that the monitoring equipment be left in place for future monitoring should it be required by DEQ.

#### **IDAPA 58.01.01.383      *Administrative Permit Amendments***

Additionally, TASCOS has requested that DEQ replace the process weight equation in Permit Condition 5.3 to the process weight equation specific to sugar beet processors. This permitting action is an administrative amendment which corrects the typographical error.

### **5.3 Fee Review**

The facility is a major facility as defined in IDAPA 58.01.01.008.10, and is therefore subject to registration and registration fees in accordance with IDAPA 58.01.01.387. The facility is current with its registration fees.

## **6. PERMIT CONDITIONS**

6.1 As requested in the application, Permit Condition 2.16 is modified.

Permit Condition 2.16 in the initial Tier I operating permit:

“2.16 Within 12 months of the Tier II operating permit issuance, the permittee shall install, maintain, and operate two reference PM<sub>10</sub> (one TEOM and one high volume), one reference SO<sub>2</sub> and meteorological monitoring equipment at a location(s) approved by DEQ. Ambient air quality monitoring shall be performed to collect data on meteorological parameters and ambient concentrations of PM<sub>10</sub> and SO<sub>2</sub>, as follows”:

Permit Condition 2.16 in the modified Tier I operating permit:

"2.16 By September 30, 2003, the permittee shall install, maintain, and operate one reference PM<sub>10</sub> Tapered Element Oscillating Microbalance (TEOM), one reference SO<sub>2</sub> and meteorological monitoring equipment at a location(s) approved by DEQ. The permittee shall also maintain the reference high volume PM<sub>10</sub> sampler required by Tier II Operating Permit No. 027-00010, issued September 30, 2002, and shall operate the sampler as directed by DEQ. Ambient air quality monitoring shall be performed to collect data on meteorological parameters and ambient concentrations of PM<sub>10</sub> and SO<sub>2</sub>, as follows":

- 6.2 As requested in the application, Permit Condition 5.3 is corrected to use the process weight rate equations specifically for the beet drying.

Permit Condition 5.3 in the initial Tier I operating permit:

"5.3.1 If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

5.3.2 If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}"$$

Permit Condition 5.3 in the modified Tier I operating permit:

"5.3.1 If PW is less than 60,000 lb/hr,

$$E = 0.02518(PW)^{0.67}$$

5.3.2 If PW is equal to or greater than 60,000 lb/hr,

$$E = 23.84(PW)^{0.11} - 40"$$

- 6.3 All compliance dates in the initial permit are hard dated in this permit modification.
- 6.4 Permit Conditions 14.3, 14.4, and 14.7 were completed per TASCOS October 21, 2005 submittal.
- 6.5 Regarding Permit Conditions 14.8 and 14.9, the facility has initiated construction of the pulp stam dryer one year ahead of the scheduled construction start date.
- 6.6 TASCOS has been implementing Permit Condition 2.2, per TASCOS's October 21, 2005 submittal.

## **7. PERMIT REVIEW**

### **7.1 Regional Review of Draft Permit**

An electronic copy and a hard copy of this permit revision and statement of basis has been provided to the Boise Regional Office for review concurrently with the facility draft review. No comments were received on the facility draft review.

### **7.2 Facility Review of Draft Permit**

The facility requested a review of the draft permit on July 20, 2005. A draft permit has been made available for facility review on October 12, 2005. The comments were received on October 21, 2005, and addressed in the permit.

### **7.3 Public Comment**

In accordance with IDAPA 58.01.01.364, DEQ provided the draft Tier I operating permit for public notice, public review and comment, and affected states review. The state of Oregon is an affected state, and as such, was provided a copy of the public comment package for review and comment. No comments were received during the 30-day public comment period from January 6, 2006 to February 6, 2006.

### **7.4 EPA Review on the Proposed Permit**

The proposed Tier I operating permit was emailed to EPA for review on March 3, 2006. EPA issued the letter on March 6, 2006. It states "*We are writing to notify you that EPA will not be reviewing the proposed modification to the permit action and will not object to its issuance. The modification to the permit is now eligible for issuance.*"

## **8. RECOMMENDATION**

Based on review of application materials and all applicable state and federal rules and regulations, staff recommend that final Tier I Operating Permit No.T1-050020 be issued to TASC0, Nampa sugar beet processing facility.

## 9. AIRS

**AIRS/AFS<sup>a</sup> FACILITY-WIDE CLASSIFICATION<sup>b</sup> DATA ENTRY FORM**

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION	
								A-Attainment U-Unclassified N- Nonattainment	
SO <sub>2</sub>	A	A					A	U	
NO <sub>x</sub>	A	A					A	U	
CO	A	A					A	U	
PM <sub>10</sub>	A	A					A	U	
PT (Particulate)	A	A					A		
VOC	A	B					A	U	
NH <sub>3</sub>	A	ND					ND		
THAP (Total HAPs)	B	B					B		
			APPLICABLE SUBPART						

<sup>a</sup> Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

<sup>b</sup> AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

SYC/bf                      Permit No. T1-050020

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**APPENDIX**

**TASCO - NAMPA  
T1-050020**

***PM<sub>10</sub> HIGH VOLUME SAMPLER AND PM<sub>10</sub> TEOM ASSESSMENT***

**William Rogers**

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**From:** Bruce Louks  
**Sent:** Tuesday, October 11, 2005 4:12 PM  
**To:** William Rogers; June Ramadell  
**Cc:** Michael Toole  
**Subject:** TASC0 HI-Vol v. TEOM Assessment  
**Attachments:** TAS\_PM10.xls

I compared a full year of data collected by the TASC0 HI-volume PM<sub>10</sub> and TEOM PM<sub>10</sub> samplers. 59 pairs of data yielded a linear regression equation:

$TEOM\ \mu g/m^3 = 0.8712\ HI\text{-}vol\ \mu g/m^3 - 1.477\ \mu g/m^3$ ,  $r^2 = 0.8317$ . These statistics are acceptable for demonstrating a good relationship between the two methods.

The TEOM reports PM<sub>10</sub>, on average, 13% lower than the hi-vol. This is typical in airsheds with significant levels of volatile aerosol because the TEOM heats the sample to 30 or 50 degrees C, depending on the season, and heating results in loss of volatile nitrogen species.

Regarding continued use of the Hi-vol, I don't see a reason to. All TEOMs in the Treasure Valley report low, and thus the TASC0 TEOM data can be compared to the Nampa Fire Station TEOM data for reasonableness. The TEOM is a Federal Equivalent Method (FEM) for PM<sub>10</sub> and the data is reported to EPA without correction.

It may be reasonable to ask TASC0 to keep the Hi-vol on the monitoring stand, in the event during air stagnation occurs and a filter-based sample can be collected for chemical analysis. That is your call.

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10/12/2005

