Air Quality Permitting
Statement of Basis

February 22, 2006

Tier II Operating Permit
No. T2-050021

The Amalgamated Sugar Company LLC, Nampa Facility, Nampa Idaho
Facility ID No. 027-00010

Prepared by:

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AIR QUALITY DIVISION

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	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 Technology
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NH_3	ammonia
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
Rules	Rules for the Control of Air Pollution in Idaho
SIP	State Implementation Plan
SO_2	sulfur dioxide
TASCO	The Amalgamated Sugar Company LLC
VOC	Volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.400 through 410 *Rules for the Control of Air Pollution in Idaho* (*Rules*) for issuing Tier II 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

- In its initial Tier II operating permit, TASCO was required to operate a high volume PM_{10} sampler concurrently with a continuous monitoring PM_{10} Tapered Element Oscillating Microbalance (TEOM) at TASCO's, Nampa facility. The correlation of the PM_{10} concentration data between these two monitors has been very good for the five quarters that they have been operated. TASCO requested DEQ to remove the requirement to operate the high volume PM_{10} monitoring equipment from the exiting Tier I operating permit. The facility submitted the supporting information and DEQ's Boise Regional Office issued a letter and agreed on their request on March 21, 2005. This permit action is to remove the requirement to operate the high volume PM_{10} monitoring equipment from the initial Tier I operating permit. Please refer to Appendix B for a more detailed explanation.

- TASCO has also requested that DEQ correct the process weight equations for the pulp dryers contained in Permit Condition 5.4. The current permit condition lists IDAPA 58.01.01.702 as the applicable requirement, whereas the correct applicable requirement is IDAPA 58.01.01.703. The permit is being revised to correct the typographical error.

4.1 Application Chronology

April 22, 2005	DEQ received application regarding removing the requirement to operate the high volume PM_{10} monitoring equipment from the original Tier I operating permit

May 20, 2005	DEQ declared the application complete
July 20, 2005	DEQ received application regarding correcting the process weight rate equations in the original Tier I operating permit dated June 24, 2005.
July 22, 2005	DEQ declared the application complete
October 12, 2005	DEQ provides draft permit to the facility and to DEQs Boise Regional Office for review
October 21, 2005	DEQ received TASCO's comments

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this Tier II operating permit.

5.1 *Equipment Listing*

This permit revision doesn't change the equipment list of the original Tier II operating permit issued September 30, 2002.

5.2 *Emissions Inventory*

This permit revision doesn't change the emissions inventory of the original Tier II operating permit issued September 30, 2002.

5.3 *Modeling*

This permit revision doesn't change the modeling analysis of the original Tier II operating permit issued September 30, 2002.

5.4 *Regulatory Review*

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

This permit revision doesn't change the applicability of the regulations of the original Tier II operating permit issued September 30, 2002. This permit revision is, in addition, subject to IDAPA 58.01.01.404.04 Permit Revision or Renewal.

5.5 *Fee Review*

A Tier II operating permit processing fee of $500 is required for this permit revision in accordance with IDAPA 58.01.01.407.

5.6 *Regional Review of Draft Permit*

The draft permit was made available for regional office review on July 5, 2005, and July 20, 2005. The comments were received on July 11, 2005. They were addressed in this facility draft permit.

5.7 *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.

6. PERMIT CONDITIONS

6.1 As requested in the application, Permit Condition 2.5 is modified.

Permit Condition 2.5 in the original Tier II operating permit:

"2.5 Within 12 months of the Tier II operating permit issuance, the permittee shall install, maintain, and operate two reference PM_{10} (one TEOM and one high volume), one reference SO_2 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_{10} and SO_2, as follows":

Permit Condition 2.5 in the revised Tier II operating permit:

"2.5 By September 30, 2003, the permittee shall install, maintain, and operate one reference PM_{10} Tapered Element Oscillating Microbalance (TEOM), one reference SO_2 and meteorological monitoring equipment at a location(s) approved by DEQ. The permittee shall also maintain the reference high volume PM_{10} 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_{10} and SO_2, as follows":

6.2 As requested in the application, Permit Condition 5.4 is corrected to use the process weight rate equations specifically for the beet drying.

Permit Condition 5.4 in the original Tier II operating permit:

".....

- If PW is less than 17,000 lb/hr,

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

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

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

Permit Condition 5.4 in the revised Tier II operating permit:

".....

- If PW is less than 60,000 lb/hr,

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

- 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 original permit are hard dated in this permit modification.

6.4 Permit Conditions 13.3, 13.4, and 13.6 were completed per TASCO October 21, 2005 submittal.

6.5 Regarding Permit Conditions 13.7 and 13.8, the facility has initiated construction of the pulp stam dryer one year ahead of the scheduled construction start date.

6.6 TASCO has been implementing Permit Condition 2.2, per TASCOs October 21, 2005 submittal.

7. PUBLIC COMMENT

In accordance with IDAPA 58.01.01.404.c, DEQ provided the proposed Tier II operating permit for public notice, and public review and comment. No comments were received during the 30-day public comment period from January 4, 2006, to February 2, 2006.

8. RECOMMENDATION

Based on the review of the application materials, and all applicable state and federal regulations, staff recommends that DEQ issue a final Tier II operating permit No. T2-050021 for public review and comment.

SYC/bf Permit No. T2-050021

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APPENDIX A

AIRS Information

The Amalgamated Sugar Company LLC, Nampa Facility

T2-050021

AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: The Amalgamated Sugar Company LLC, Nampa Facility
Facility Location: Nampa, Idaho
AIRS Number: 027-00010

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_2	A	A					A	U
NO_x	A	A					A	U
CO	A	A					A	U
PM_{10}	A	A					A	U
PT (Particulate)	A	A					A	
VOC	A	B					A	U
NH_3	A	ND					ND	
THAP (Total HAPs)	B	B					B	
			APPLICABLE SUBPART					

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] 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).

APPENDIX B

TASCO - NAMPA
T2-050021

PM_{10} HIGH VOLUME SAMPLER AND PM_{10} TEOM ASSESSMENT

William Rogers

From: Bruce Louks
Sent: Tuesday, October 11, 2005 4:12 PM
To: William Rogers; June Ramsdell
Cc: Michael Toole
Subject: TASCO Hi-Vol v. TEOM Assessment
Attachments: TAS_PM10.xls

I compared a full year of data collected by the TASCO Hi-volume PM_{10} and TEOM PM_{10} samplers.
59 pairs of data yielded a linear regression equation:

TEOM ug/m^3 = 0.8712 Hi-vol ug/m^3 – 1.477 ug/m^3, r^2 = 0.8317. These statistics are acceptable for demonstrating a good relationship between the two methods.

The TEOM reports PM_{10}, 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 TASCO TEOM data can be compared to the Nampa Fire Station TEOM data for reasonableness. The TEOM is a Federal Equivalent Method (FEM) for PM_{10} and the data is reported to EPA without correction.

It may be reasonable to ask TASCO 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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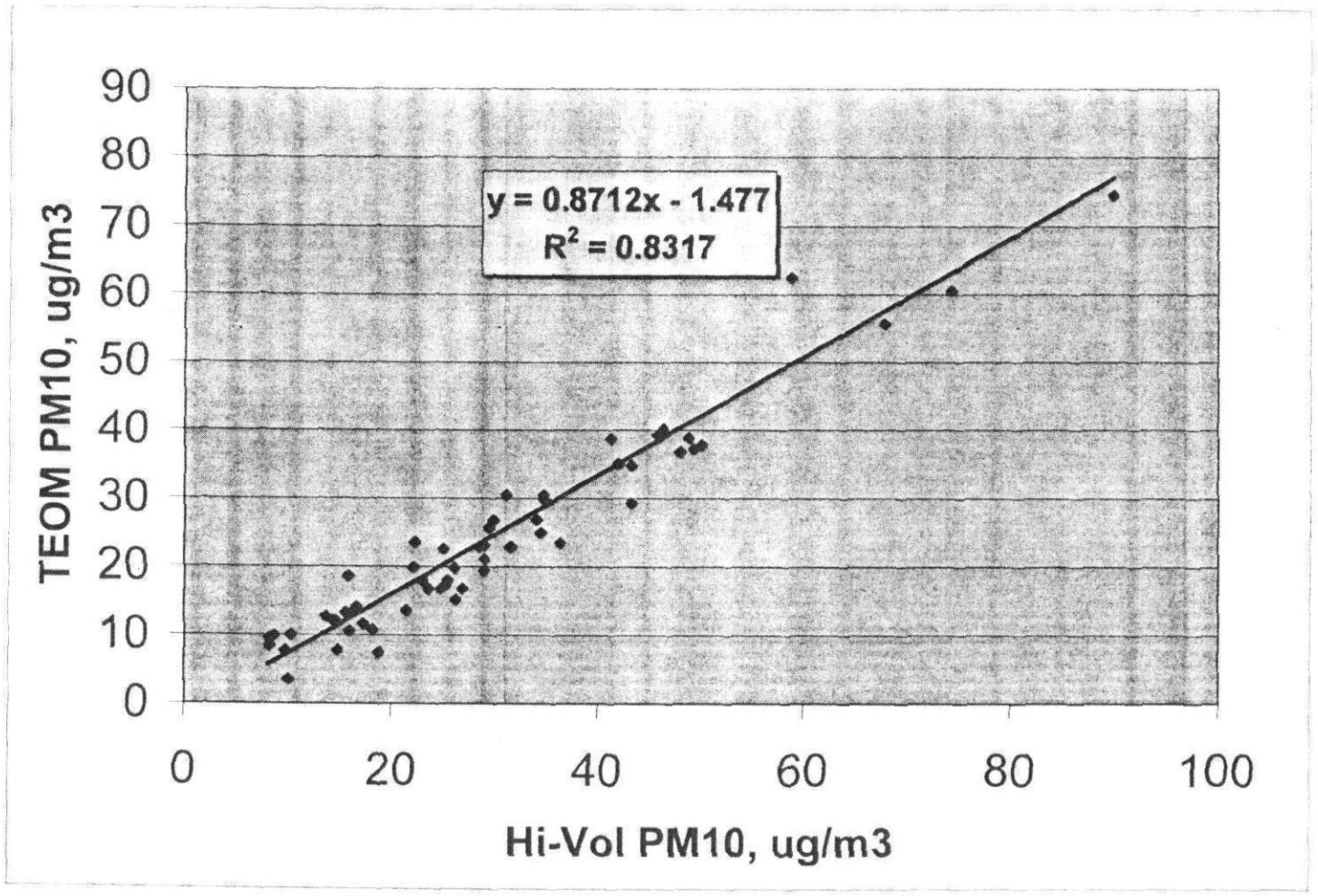
10/12/2005


y = 0.8712x - 1.477
R² = 0.8317
TEOM PM10, ug/m3
Hi-Vol PM10, ug/m3
0
10
20
30
40
50
60
70
80
90
0
20
40
60
80
100