



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
John H. Tippetts, Director

January 17, 2017

Aaron Turner, Operations Manager
E. M. Tanner & Sons, Inc.
221 Airport Road
Blackfoot, ID 83221

RE: Facility ID No. 011-00036, E. M. Tanner & Sons, Inc., Blackfoot
Final Permit Letter

Dear Mr. Aaron Turner:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2009.0102 Project 61780 to E. M. Tanner & Sons, Inc., located at Blackfoot, for increasing urethane usage and installing a new paint booth. This PTC is issued in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho) and is based on the certified information provided in your PTC application received September 1, 2016.

This permit is effective immediately and replaces PTC No. 2009.0102, issued on September 30, 2009. This permit does not release E. M. Tanner & Sons, Inc. from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Rick Elkins, Air Quality Analyst, at (208) 236-6160 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends that the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any other staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Tom Burnham at (208) 373-0502 or tom.burnham@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in black ink that reads "Mike Simon". The signature is written in a cursive style.

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS\tb

Permit No. P-2009.0102 PROJ 61780

Enclosures

Air Quality

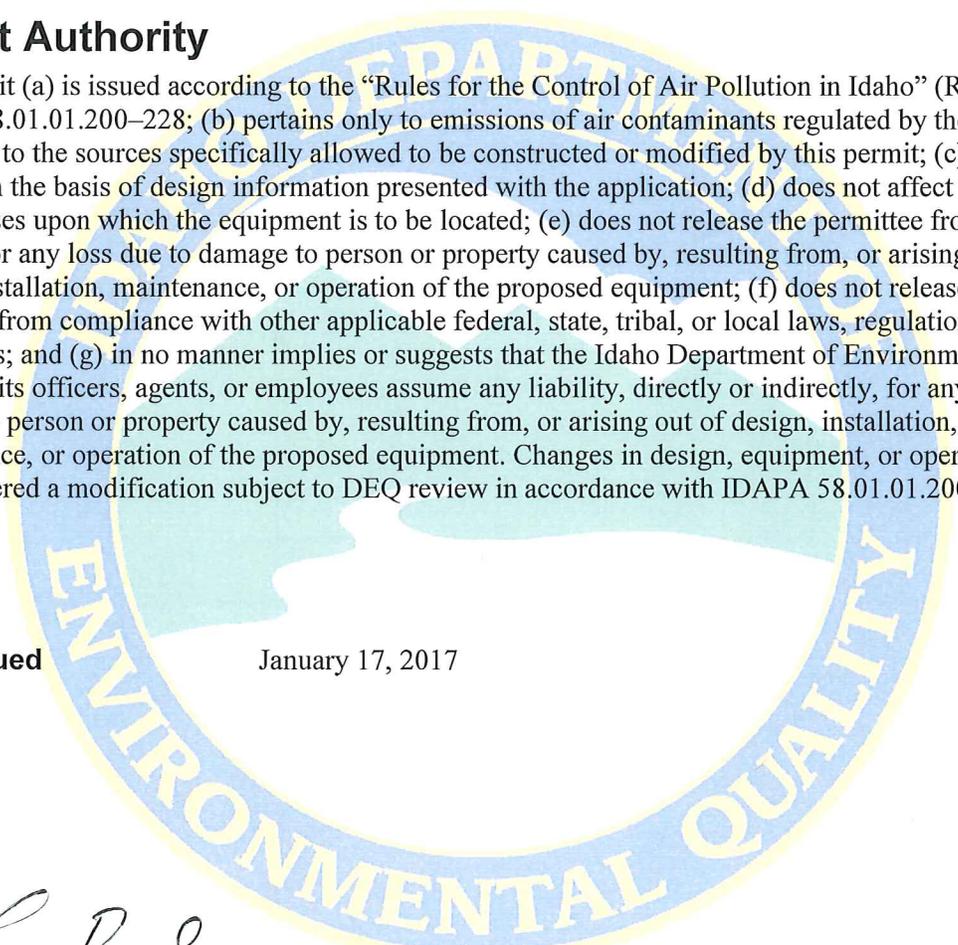
PERMIT TO CONSTRUCT

Permittee EM Tanner and Sons, Inc.
Permit Number P-2009.0102
Project ID 61780
Facility ID 011-00036
Facility Location 221 Airport Road
Blackfoot, Idaho 83221

Permit Authority

This permit (a) is issued according to the “Rules for the Control of Air Pollution in Idaho” (Rules), IDAPA 58.01.01.200–228; (b) pertains only to emissions of air contaminants regulated by the State of Idaho and to the sources specifically allowed to be constructed or modified by this permit; (c) has been granted on the basis of design information presented with the application; (d) does not affect the title of the premises upon which the equipment is to be located; (e) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (f) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; and (g) in no manner implies or suggests that the Idaho Department of Environmental Quality (DEQ) or its officers, agents, or employees assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment. Changes in design, equipment, or operations may be considered a modification subject to DEQ review in accordance with IDAPA 58.01.01.200–228.

Date Issued January 17, 2017




Tom Burnham, Permit Writer


Mike Simon, Stationary Source Manager

Contents

Acronyms, Units, and Chemical Nomenclature	3
1 Permit Scope.....	4
2 Paint/Rubber rooms	5
3 Fabricating Operations.....	9
4 General Provisions.....	10

Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CAA	Clean Air Act
CFR	Code of Federal Regulations
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
Gallons/yr	gallons per year
HAP	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/gal	pounds per gallon
lb/hr	pounds per hour
m	meters
MACT	Maximum Achievable Control Technology
MSDS	Material Safety Data Sheets
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
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
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
scf	standard cubic feet
DSD	Safety Data Sheets
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
T/yr	tons per year
TAP	toxic air pollutants
UTM	Universal Transverse Mercator
VOC	volatile organic compounds

1 Permit Scope

Purpose

- 1.1 This is a revised permit to construct (PTC) to modify urethane usage and install a paint booth.
- 1.2 Those permit conditions that have been modified or revised by this permitting action are identified by the permit issue date citation located directly under the permit condition and on the right-hand margin.
- 1.3 This PTC replaces Permit to Construct No. P-2009.0102, issued on September 30, 2009.

Regulated Sources

Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 Regulated Sources

Permit Section	Source	Control Equipment
2	<u>Paint Room Exhaust Fan</u> Manufacturer: Dayton Model: 1AHB3 Maximum Capacity: 24,000 acfm Construction Date: 1970 Modification Dates: 1985, 2016 Maximum operating hours: 5,840/yr	Filter System
2	<u>Paint Room Spray Gun (Booth)</u> Manufacturer: Graco Type: Assisted airless Capacity Rating: 3.34 gal/hr Transfer Efficiency: 65% Maximum operating hours: 5,840/yr	Filter System
2	<u>Rubber Room Exhaust Fan</u> Manufacturer: Dayton Model: 3CC75 Maximum Capacity: 22,000 acfm Construction Date: 2016 Maximum operating hours: 8,760/yr	None
3	<u>Welding Operations</u> Method: Electric arc welding Process: GMAW (gas metal arc welding) Electrode Type: E70S	None

2 Paint/Rubber rooms

2.1 Process Description

Tanner applies a base coat and top coat paint to each part in the same spray booth. Equal amount of base coat and top coat are applied. The paint comes in five gallons. Generally, thinning of the paint is not done at the facility. However, on occasion and depending on the temperature and/or atmospheric pressure, a small amount of solvent is added to the paint. The paint is dispersed by a spray gun which has a maximum capacity of 3.34 gallons/ hour. Currently, painting the parts is performed at a maximum of 5 hours/day, year around, resulting in a maximum total of 1,825 hours/year. Tanner uses three paint colors - black, white, and burnt orange enamel. Only one type of paint is used at a time and only a small amount of solvent is added to the paint. However, to be conservative, the emissions used in the air dispersion model assume the material being sprayed contains the highest concentration of each constituent.

The paint booth has an exhaust fan of 24,000 acfm. Exhaust from the paint room and other areas of the shop (excluding the rubber room), travels in a zigzag pattern from the bottom inlet of the exhaust fan (located in the northwest corner of the paint room) to the top and passes through approximately 25 hanging expanded metal screens on the way up. Exhaust then travels through the fan itself to the outside plenum and down through a series of furnace filters. The exhaust fan exits the building at ground level. Combined with expanded metal screens, the estimated efficiency of the particulate removal is at least 95%.

On occasion, smaller parts are made using an open mold casting operation. The molds have a thin coat of mold release applied, and then a machine is used to mix the urethane resin and hardener and dispense the mixture into the mold. If the piece being molded has a metal core, the core will be painted with a layer of adhesive and placed in the mold prior to pouring. At the end of resin/hardener mixture pour cycle, the mixing/dispensing portion of the machine is flushed with methylene chloride.

The rubber room is equipped with an exhaust fan, rated for a maximum of 22,000 acfm, directed through a 25 foot stack.

2.2 Paint/Rubber Room Control Device Descriptions

Table 2.1 Paint/Rubber Room Description

Emissions Units / Processes	Control Devices	Emission Points
Painting Operations	Paint Booth with filters	PAINTEX1 and PAITEX2
Molding Operations	Rubber Room with filters	RUBBEREX

Emission Limits

2.3 Emission Limits

The PM, PM₁₀, and VOC emissions from the paint room and rubber room stacks shall not exceed any corresponding emissions rate limits listed in Table 2.2.

Table 2.2 Paint/Rubber Room Emission Limits¹

Source Description	PM ₁₀		VOC
	lb/hr	T/yr ²	T/yr ²
Painting/Molding Operations	--	--	11.61
PM associated with Enamel Paints	0.26	0.17	--
PM associated with Rubber Room molds	1.15e ⁻⁴	5.04e ⁻⁴	--

¹ In absence of any other credible evidence, compliance is assured by complying with this permit's operating, monitoring and record keeping requirements.

² Tons per consecutive 12-calendar month period.

2.4 Opacity Limit

Emissions from the paint and rubber room stacks, or any other stack, vent, or functionally equivalent opening associated with the paint and rubber room stacks, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

2.5 Odors

No person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids into the atmosphere in such quantities as to cause air pollution in accordance with IDAPA 58.01.01.776.01.

Operating Requirements

2.6 Painting, Coating and Solvents Limits in Paint Room

Coating operations are limited to 16 hours in any calendar day. The solvents and coating use in the painting process shall not exceed the following limits in any consecutive 12-calendar months:

- 64 gallon/yr of Xylene Solvent or equivalent
- 272 gallon/yr of Solvent 100 (Aromatic Solvent) or equivalent
- 224 gallons/yr of Silicone Alkyd DTM Enamel Black or equivalent
- 224 gallons/yr of Silicone Alkyd DTM Enamel White or equivalent
- 4,480 gallons/yr of Silicone Alkyd DTM Enamel Orange of equivalent

For the purposes of this permit condition, “ or equivalent” is defined as a paint having a HAP, TAP, VOC content in pounds per gallon (lb/gal) which is equal to or less than the HAP, TAP, and VOC content of the coatings listed in this permit.

2.7 Molding, Resin and Hardener Limits in Rubber Room

All material usage of molding, resin and hardener shall not exceed the following limits in any consecutive 12-calendar months:

- 149 gallons/yr of Methylene Chloride or equivalent
- 5,000 gallons/yr of Vibrathane B601 or equivalent
- 9,727 gallons/yr of Vibrathane B809 or equivalent
- 3,168 gallons/yr of Ethacure 300 or equivalent
- 144 gallons/yr of Thioxin 423 Clear or equivalent
- 240 gallons/yr of M800 Urethane or equivalent

For the purposes of this permit condition, “ or equivalent” is defined as a paint having a HAP, TAP, VOC content in pounds per gallon (lb/gal) which is equal to or less than the HAP, TAP, and VOC content of the coatings listed in this permit.

[January 17, 2017]

2.8 Paint Booth Exhaust Filter System

All priming, painting, or coating at this facility shall be conducted in the paint booth. The permittee shall not conduct priming, painting, or coating in the paint booth unless the paint booth exhaust filter system is installed and operating.

The permittee shall monitor and record visible emissions from the spray booth filter system once per day when operating (for any day that a coating operation is performed in the paint spray booth) to demonstrate compliance with the opacity permit condition. The inspection shall consist of a see/no see evaluation for the paint spray booth exhaust system. If any visible emissions are present from the paint spray booth exhaust system, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136.

The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and opacity test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

Monitoring and Recordkeeping Requirements

2.9 Hours of Operation Monitoring

To demonstrate compliance with the hourly operations limits of the paint room, the permittee shall monitor and record the hours of operation of the facility each day.

2.10 Material Purchase Records and Safety Data Sheets

For each material used in the welding, metal parts and products coating processes, including but not limited to welding, resin, coating, and molding use, the permittee shall record and maintain the following records:

- Quantity of material purchase records
- Safety Data Sheets (DSD), formerly called Material Safety Data Sheets (MSDS)

2.11 Coating, Resin, Molds and Solvent Usage Records

To demonstrate compliance with coating and solvent usage permit conditions, the permittee shall monitor and record monthly, in gallons, the usage of each solvent, resin, mold, and coating used in the metal parts and products coating process. Purchase records must be maintained.

2.12 VOC Emissions Monitoring Requirements

Using the usage rates and MSDS required by the purchasing records permit condition and the material usage permit condition, the permittee shall monitor and record the monthly and annual VOC emissions, in tons, from the metal parts and products coating in order to demonstrate compliance with the emissions limit permit condition.

Monthly VOC emissions shall be calculated as follows:

Total monthly VOC emissions = [VOC weight percent (material #1) x Density in pounds per gallon (material #1) x monthly usage in gallons (material #1)] ÷ 2,000 pounds per ton + ...

+ [VOC weight percent(material #n) x Density in pounds per gallon (material #n) x monthly usage in gallons (material #n)] ÷ 2,000 pounds per ton.

Annual VOC emissions shall be determined by summing total monthly VOC emissions over each previous consecutive 12-month period.

2.9 PM₁₀ Emissions Monitoring Requirements

Using the purchase records and MSDS required by the purchasing records permit condition and the material usage permit condition, the permittee shall monitor and record the monthly and annual PM₁₀ emissions, in tons, from the metal parts and products coating in order to demonstrate compliance with the emissions limit permit condition.

Monthly PM₁₀ emissions shall be calculated as follows:

Total monthly PM₁₀ emissions = [Solids weight percent (material #1) x Density in pounds per gallon (material #1) x monthly usage in gallons (material #1)] x (1-TE) x (1-FE) ÷ 2,000 pounds per ton + ... + [Solids weight percent (material #n) x Density in pounds per gallon (material #n) x monthly usage in gallons (material #n)] x (1-TE) x (1-FE) ÷ 2,000 pounds per ton.

Where TE equates to transfer efficiency (65% or greater) for the Paint Room and (95% or greater) for brush transfer efficiency in the Rubber Room for Urethane and Thioxin and FE equates filter efficiency (95% or greater) for both the Paint and Rubber Rooms.

Annual PM₁₀ emissions shall be determined by summing total monthly PM₁₀ emissions over each previous consecutive 12-month period.

2.10 Recordkeeping

The permittee shall comply with the recordkeeping requirements of General Compliance provisions of this permit.

3 Fabricating Operations

3.1 Process Description

Steel (primarily A36 grade) is purchased from regional steel vendors. The steel is sawed or sheared to length. The cut pieces are welded together into frames to which electric motors and drive components, belts, rollers, axles, and etc. are added to complete the machines. The fabricating is conducted in the manufacturing shop and the new shop attached to the manufacturing shop.

3.2 Welding Electrode Annual Limit

The welding process shall not exceed 38,371 pounds of electrode used per year.

3.3 Welding Electrode Type

All welding operations conducted at this facility shall exclusively use an E70S Electrode.

Monitoring and Recordkeeping Requirements

3.4 Welding Electrode Usage Recordkeeping

Each time Electrode welding is conducted at this facility, the amount of electrode used shall be recorded in pounds and totaled over any consecutive 12-calendar month period to demonstrate compliance with the electrode usage annual limit.

4 General Provisions

- 4.1 The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the “Rules for the Control of Air Pollution in Idaho.” The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit, the “Rules for the Control of Air Pollution in Idaho,” and the Environmental Protection and Health Act (Idaho Code §39-101, et seq.)

[Idaho Code §39-101, et seq.]

- 4.2 The permittee shall at all times (except as provided in the “Rules for the Control of Air Pollution in Idaho”) maintain in good working order and operate as efficiently as practicable all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

[IDAPA 58.01.01.211, 5/1/94]

- 4.3 Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules, and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

- 4.4 Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:
- Enter upon the permittee’s premises where an emissions source is located, emissions-related activity is conducted, or where records are kept under conditions of this permit;
 - Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
 - Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

Construction and Operation Notification

- 4.5 This permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year.

[IDAPA 58.01.01.211.02, 5/1/94]

- 4.6 The permittee shall furnish DEQ written notifications as follows:
- A notification of the date of initiation of construction, within five working days after occurrence; except in the case where pre-permit construction approval has been granted then notification shall be made within five working days after occurrence or within five working days after permit issuance whichever is later;
 - A notification of the date of any suspension of construction, if such suspension lasts for one year or more;
 - A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date; and

- A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211.03, 5/1/94]

Performance Testing

- 4.7 If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.
- 4.8 All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.
- 4.9 Within 60 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00 and 4/11/15]

Monitoring and Recordkeeping

- 4.10 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Monitoring records shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

Excess Emissions

- 4.11 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions due to start-up, shut-down, scheduled maintenance, safety measures, upsets, and breakdowns.

[IDAPA 58.01.01.130–136, 4/5/00]

Certification

- 4.12 All documents submitted to DEQ—including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification—shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

- 4.13 No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

- 4.14 No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

- 4.15 This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

- 4.16 The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[IDAPA 58.01.01.211, 5/1/94]