217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Wheatland Tube Company, Chicago Division
Attn: Ron Bennett, Plant Manager
4435 South Western Boulevard
Chicago, Illinois 60609

Application No.: 02050066
I.D. No.: 031600FDI
Applicant's Designation: MILL #4
Date Received: May 22, 2002
Subject: Continuous Galvanizing Mill
Date Issued:
Location: 2300 West 47th Street, Chicago

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a Continuous Production Steel Tube Mill (Mill 4), including interior and exterior coating and galvanizing as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

Findings

1. Wheatland Tube Company ("Wheatland Tube") is seeking to expand its Chicago metal tube manufacturing plant with a new mill (Mill 4) which includes a galvanizing system, paint stations, associated scrubbers, and cyclone dust collector systems and related ancillary equipment. The new mill is similar to Mill 3, which was constructed in 1997.

2. Wheatland Tube is located in an area that is designated as nonattainment for ozone.

3. This new mill is subject to 35 IAC Part 203: Major Stationary Sources Construction and Modification (MSSCAM) because the potential emissions of volatile organic material (VOM) will exceed 25 tons/year. Accordingly the new mill is subject to requirement for Lowest Achievable Emission Rate (LAER) and must be accompanied by emission offsets.

4. The emissions of hazardous air pollutants (HAP) from this project will exceed 25 tons per year. This subjects this project to a requirement to use Maximum Achievable Control Technology (MACT) for emissions of HAP, as determined on a case-by-case basis pursuant to Section 112(g) of the federal Clean Air Act.

5. After reviewing all materials submitted by Wheatland Tube, the Illinois EPA has determined that use of low VOM and HAP content coatings, as proposed, satisfies the requirement for LAER and MACT.

6. The application also addressed the emission offset and other requirements of MSSCAM for a major project.

7. A copy of the application and the Illinois EPA's review of the application and a draft of the revised permit was forwarded to a location in the vicinity of the plant, and the public was given notice and opportunity to examine this material, to submit comments, and if necessary to request a public hearing on this matter.

Conditions

1. Standard conditions for issuance of construction and operating permits attached hereto and incorporated herein by reference shall apply to this project, unless superseded by the following special conditions.

2.0 Unit Specific Conditions

2.1 Units 19-20: Hot Dip Galvanizing Kettle 4 and Paint Station

2.1.1 Description

Wheatland Tube manufactures steel tubing. The process begins with the cleaning of steel strip with a pressurized alkaline cleaning system. The strip is cold formed with a steel-rolling system consisting of progressive dies into the tubular cross-section. The strip is electrically welded into a tube. The tube is then cleaned with an HCl solution and rinsed in a fumeless system. After a final rinse, the tube is induction heated to approximately 800°F to prepare the tube for an application of molten zinc galvanizing to the exterior of the tube. After galvanizing, the tube is cooled with a water-quench. The tube is then finished to specified dimensions and coated with a corrosion resistant chromate solution. After the chromate solution is applied, a coating is typically applied to the tube exterior. The final process involves cutting the finished product to length. To avoid rusting of the ends of the conduit, a separate end spray is applied at another location in the facility, offline from mill production equipment.

The interior surface of the tube is sprayed with a corrosion resistant and friction-reducing coating. This coating is applied with a lance that is inserted into the tube so that coating is applied inside the tube beyond the welding point. The interior coating is sprayed in a nitrogen atmosphere and cures during the manufacturing process.

The continuous production Steel Tube Mill 4 will include one hot dip galvanizing kettle, paint stations and related ancillary equipment. This equipment uses low VOM and HAP content materials for coating the interiors of tubes and UV coating for the exterior tubes.

VOM is emitted during coating operations when the solvents within the coating volatilize into the atmosphere during application onto the tubing.

Additionally, Mill 4 will include a stenciling operation; however, the emissions from stenciling are insignificant.

Mill 4 is similar to Mill 3 at Wheatland, which began operation in 1998. Because operations on Mill 4 will be similar to those on this existing mill, certain requirements of this permit apply to both Mills 3 and 4 combined as Wheatland has proposed to comply with common requirements for these mills. In fact, lower-VOM content coatings will be used on Mill 3 due to improved reformulation designed for Mill 4.

2.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
22	Hot Dip Galvanizing Kettle #4	Cartridge Dust Collector
23	Paint Stations and Cutoff	Scrubbers
24	Endspray Paint Station	None

2.1.3 Applicability Provisions and Applicable Regulations

a. The “affected mill” for the purpose of these unit-specific conditions, is a continuous line consisting of a hot dip galvanizing kettle, paint stations, and associated control equipment as identified in Conditions 2.1.1 and 2.1.2.

b. i. The affected mill is subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321.

A. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the following equation:

$$E = A(P)^B$$

Where:

P = Process Weight Rate
E = Allowable Emission Rate

1. For process weight rates up to 408 MG/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

2. For process weight rates greater than or equal to 408 MG/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

ii. For this purpose, the galvanizing operation and painting operations, which, being separate points of the mill with their own exhaust points, shall individually comply with this requirement and shall not be aggregated together as similar units.

c. The affected mill is subject to 35 IAC 218.204(j)(2)(A): Miscellaneous Metal Parts and Product - Extreme performance air dried coating (due to drying by exposure to air), which provides that:

No owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the coating as applied to Miscellaneous Metal Parts and Products Coating. The following emission limitation is expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator:

Description	kg/liter	lbs/gallon
Air Dried	0.42	3.5

2.1.4 Non-Applicability of Regulations of Concern

a. The affected mill is not subject to 35 IAC 218.301, use of Organic Material, pursuant to 35 IAC 218.209, Exemption From General Rule on Use of Organic Material. This rule excludes coating lines which use coatings that comply with 35 IAC 218.204 from this requirement.

b. This permit is issued based on the construction of the affected mill not being subject to the rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, for emissions of particulate matter or other pollutants. The increase in emissions due to proposed Mill 4 is unrelated to previous projects (e.g., construction of Mill 3 in 1998).

2.1.5 Operational and Production Limits and Work Practices

a. i. The VOM content of each coating used on the affected mill for the interior of tubes, as applied, shall not exceed the following limits. These limits are expressed in units of weight of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM), as applied.

A. 1.8 lb VOM/gal for electrical metallic tubing (conduit) with outside diameters less than or equal to 2.0 inches.

B. 2.3 lb VOM/gal for other tubing.

ii. The coatings used on the affected mill for the exterior of tubes shall be:

A. UV cure coatings and powder coatings; or

B. Clear water-based coatings that contain less than 1.0 lb VOM/gal (minus water and exempt compounds), provided that the annual emissions from the use of clear water-based exterior coatings shall not exceed 6.7 tons/year for the affected mill or 10.0 tons/year for the combination of the affected mill and existing Mill 3. [See also Condition 2.1.5(c)]

iii. The coating used on the affected mill for end spraying shall not exceed the following limits, as applied. These limits are expressed in units of VOM per volume of

coating (minus water and exempt compounds), as applied:

2.1 lb/gal for end spraying.

b. The Permittee shall not use any cleanup material on the affected mill that contains VOM.

The above limitations represent the Lowest Achievable Emission Rate as applied to the construction of the affected mill, as applicable pursuant to 35 IAC 203.301 and 203.601.

c. Mill 3 shall also comply with Condition 2.1.5(a) and (b). This assures consistency of VOM control requirements for the mills, which shall now comply with identical standards. In particular, when Mill 4 begins to operate, Mill 3 must comply with a general limit of 2.3 lb/gallon for interior coating, rather than 2.6 lb/gallon as currently applicable.

d. i. Until such time as the USEPA adopts a NESHAP that applies to the affected mill, the HAP content of coatings used on the affected mill and existing Mill 3 for all coating operations (i.e., outer diameter, inner diameter and end spray, but does not include UV coating or emissions generated during galvanizing of tubes), shall not exceed 1.94 lb HAP/gal of coating solids. This limit is expressed in units of weight of organic HAP per volume of coating solids, as applied, and are averaged over all materials used in coating-related operations. This requirement becomes effective upon initial startup of Mill 4.

Note: The NESHAP for the surface coating of miscellaneous metals, as of the date of issuance of this permit, has only been drafted (planned 40 CFR 63, Subpart MMMM), and not proposed. The new mill is being required to meet the standards in this draft NESHAP until such time as the NESHAP is adopted, at which time the new mill must comply with the adopted standard for new sources under the draft NESHAP, coating applied at this mill falls under the “General Use” category, and compliance may be shown by averaging over all coatings used in

the affected mill as provided for above.

ii. The pre-galvanizing cleaning operation shall be “fumeless” with emissions of hydrochloric acid (HCl) negligible.

e. i. The affected mill shall not operate for more than 8,150 hours per year. For this purpose, the mill shall be considered to be operating if galvanizing or internal diameter coating is being performed.

ii. Molten zinc usage for the affected mill shall not exceed the following limits:

(Tons/Month)	(Tons/Year)
900	7,535

f. The Permittee shall follow good operating practices for the affected mill and, in accordance with the manufacturer’s and/or vendor’s recommendations perform periodic inspection and routine maintenance on the pollution control equipment and prompt repair of defects on the affected mill such that the pollution control equipment be kept in proper working condition.

2.1.6 Emission Limitations

a. i. VOM emissions from the affected mill and existing Mill 3 shall not exceed the following limits:

VOM Emissions	
(Tons/Month)	(Tons/Year)
18.0	148.0

These limits reflect the current permitted annual emissions of Mill 3, as established by Construction Permit 96110025 and an additional 72 tons of emissions for Mill 4. These mills are being addressed together because they are similar and subject to identical regulating requirements, except as provided below. These limits become effective upon initial startup of Mill 4.

ii. Compliance with annual limits shall be determined on a monthly basis from the sum of

the data for the current month plus the preceding 11 months (running 12 month total).

b. i. This permit is issued based on negligible emissions of hydrogen chloride (HCl) from the affected mill. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

ii. This permit is issued based on negligible emissions of chromium compounds from the affected mill. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year).

c. i. Emissions of PM from the galvanizing operation (cyclone dust collectors) on the affected mill shall not exceed 2.24 lb/hr and 9.1 ton/yr. These limits are based on maximum emissions from this operation.

ii. Emissions of PM from the coatings operations on the affected mill shall not exceed 1.25 lb/hr and 5.2 ton/yr.

iii. This permit is issued based on negligible emissions of PM from operations on Mill 4 that are addressed above, for example, welding. For this purpose, particulate matter emissions shall not exceed 0.1 lb/hour and 0.44 tons/year.

2.1.7 Testing Requirements

a. The Permittee shall analyze representative samples of coating used in the affected mill for VOM content using the procedures specified by 35 IAC 218.105(a). The presence of exempt organic compounds, e.g., acetone, in a coating material shall be determined by manufacturer’s data unless an analytical method is approved by USEPA for such purpose. Actual analysis may be conducted by the Permittee, supplier of such coating, or an independent third party laboratory. Material information from analyses performed by the supplier may be provided on respective material safety data sheets provided to the Permittee, which should separately account for additions of any solvent, if and as necessary.

b. If the total organic HAP content cannot be determined using manufacturer’s data, the owner or operator shall submit an alternative procedure for determining the total organic HAP weight fraction for approval by

the Administrator and shall sample and analyze for HAP content, if necessary.

c. When in the opinion of the Illinois EPA it is necessary to conduct testing to demonstrate compliance with Condition 2.1.6, the Permittee shall, at its expense, conduct such tests in accordance with the applicable test methods and procedures in 35 IAC 212.110 and 218.105 or other test methods approved by the Illinois EPA.

2.1.8 Monitoring Requirements

None

2.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected Mills 3 and 4:

a. Records for sampling and analysis of coatings and cleanup material pursuant to Condition 2.1.7.

b. Daily records of the following items for coating materials that contain VOM and HAP:

i. A list of the name and identification of each coating as applied, dilution solvent, clean-up solvent, and any other material used containing VOM and/or HAP.

ii. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempt from the definition of VOM) as applied, with supporting calculations.

iii. The weight of HAP per volume of coating solids as applied, with supporting calculations.

iv. VOM and HAP content of each coating in lb/gal of material and weight percent.

v. Data on the type of tubing to which a coating was applied, i.e., electrical tubing or other type of tubing, so as to address compliance with the categorical limits in Condition 2.1.5(a).

vi. Other information on the composition of the material, e.g., density (in lb/gal), fraction water, fraction exempt compounds, volume of solids, as necessary to calculate VOM content less water and exempt compounds and HAP

content per gallon of coating solids (lb HAP gal of solids).

c. Monthly records of the following items for coating materials that contain VOM and/or HAP:

i. Actual usage of coatings, solvent, and any other material used containing VOM and/or HAP in ton/mo.

ii. Emissions of VOM, in ton/mo and ton/yr, with supporting calculations.

iii. Emissions of HAP, in tons/mo and tons/yr with supporting calculations.

iv. Any changes in the types of coating applied to the exterior of tubes as related to compliance with Condition 2.1.5(a)(ii).

v. Any changes in the practices for cleanup of the interior coatings as related to compliance with Condition 2.1.5(b).

d. Usage of molten zinc, in tons/mo.

e. Maintenance records of control equipment, pursuant to Condition 2.1.5(d).

f. Records that identify each occurrence when the affected mill is not in compliance with the emission limitations or operating requirements of this permit.

2.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, of noncompliance of the affected steel tube mill with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The Permittee shall provide a written report to the Illinois EPA within 200 days of startup of the affected steel tube mill that provides the results of initial testing required by Condition 2.1.7(b) and addresses compliance with Condition 2.1.5.

b. The Permittee shall provide a written report to the Illinois EPA for the results of annual testing required by Condition 2.1.7(b) if it indicates non-compliance with Condition 2.1.5, in which case the report shall be submitted within 30 days of receiving the analytical results.

c. Any record showing a violation of the conditions of this permit shall be reported by sending a copy of such record to the Illinois EPA Compliance Section within 30 days following the occurrence of the violation.

2.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

2.1.12 Compliance Procedures

a. Compliance with the VOM content limitations in Conditions 2.1.3(c) and 2.1.5(a) shall be determined from the recordkeeping requirements in Condition 2.1.9 and by either testing as required by Condition 2.1.7 or by use of the following formulae:

$$\text{Coating VOM Content} = V \times D/[1 - W \times D],$$

Where:

V = Percent VOM in the coating (wt.%)

D = Overall coating density (lb/gal)

$$W = \sum_i (W_i / d_i) = \text{Percent of exempt compounds in the coating}$$

Where:

w_i = Percent exempt compound i in the coating (wt.%)

d_i = Density of exempt compound i (lb/gal)

and the summation is applied over water and all exempt compounds in the coating.

b. Organic HAP content level determination - averaged coatings. For those uncontrolled emissions that are averaged together in order to comply with the required organic HAP content limits specified in Condition 2.1.5(d)(i), the following procedure shall be used to determine the monthly volume-weighted average mass of organic HAP emitted per volume of coating (solids) as applied.

i. A. Determine the total organic HAP weight fraction as applied of each coating. If any ingredients, including diluent

solvent, are added to a coating prior to its application, the organic HAP weight fraction of the coating shall be determined at a time and location in the process after all ingredients have been added.

B. Determine the total organic HAP weight fraction of each coating as applied each month.

1. If no changes have been made to a coating, either as supplied or as applied, or if a change has been made that has a minimal effect on the organic HAP content of the coating, the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.

2. If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a more than minimal effect on the organic HAP content of the coating, the total organic HAP weight fraction of the coating shall be redetermined.

C. Manufacturer's formulation data may be used to determine the total organic HAP content of each coating and any ingredients added to the coating prior to its application.

ii. A. Determine the volume both in total gallons as applied and in total gallons (solids) as applied of each coating. If any ingredients, including diluent solvents, are added prior to its application, the volume of each coating shall be determined at a time and location in the process after all ingredients (including any diluent solvent) have been added.

B. Determine the volume of each coating (solids) as applied each month.

C. The volume applied may be determined from company records.

iii. A. Determine the density of each coating as applied. If any ingredients, including diluent solvent, are added to a coating prior to its application, the density of the coating shall be determined at a time and location in the process after all ingredients have been added.

B. Determine the density of each coating as applied each month.

1. If no changes have been made to a coating, either as supplied or as applied, or if a change has been made that has a minimal effect on the density of the coating, then the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.

2. If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a more than minimal effect on the density of the coating, then the density of the coating shall be redetermined.

C. The density may be determined from company records, including manufacturer's data sheets. If the density of the coating cannot be determined using the company's records, including the manufacturer's data, then the owner or operator shall submit an alternative procedure for determining the density for approval by the Administrator.

iv. Compliance with the HAP content limitations in Condition 2.1.6(d) shall be determined from the recordkeeping requirements in Condition 2.1.9 and by either testing as required by Condition 2.1.7 or by use of the following formulae:

$$\text{Coating HAP Content} = \frac{\sum (H_i \times D_i)}{\sum S_i / 100}$$

Where:

H_i = Percent organic HAP in coating i (wt.%)

D_i = Overall coating density of coating i (lb/gal)

S_i = Percent solids content of coating i, by volume

and the summation is over all coatings used per month.

Note: This is the compliance methodology established by USEPA in the National Emission Standards for Hazardous Air Pollutants for similar coating operations requiring averaging.

c. Compliance with the VOM emission limitations in Condition 2.1.6(a) shall be determined from the recordkeeping and testing required by this section and the following equation:

VOM Emissions (lb) = Coating Usage (gal) * Coating Density (lb/gal) * VOM Content of Coating (wt.%) + Cleanup Material Usage (gal) * VOM Content of Cleanup Material (wt.%) * Cleanup Material Density (lb/gal).

d. Recordkeeping, monitoring, and testing requirements of this section shall be used to determine compliance with the particulate matter emissions limits.

3a. The Permittee shall maintain 93.6 tons of VOM emission offsets for the affected steel tube mill (i.e., Mill 4), which shall be provided from the complete shutdown of ASF Keystone, Inc., unless this Permit is revised to allow offsets to be provided from other sources in the Chicago non-attainment area or the amount of offset emissions is reduced. As a result, the total amount of offsets is 1.3 times the VOM emissions allowed from the construction of the affected steel tube mill or 72 tons/year.

b. These VOM emission reduction credits are provided by permanent emission reductions that occurred at the following source, as listed below. These emission reductions have been relied upon by the Illinois EPA to issue this permit and cannot be used as emission reduction credits for other purposes.

ASF-Keystone, Inc., East Chicago, IN, I.D. 089-13946-00302
Shutdown of Steel Foundry by "ASF" facility: 93.6 tons/year

The reductions for ASF have been made enforceable by the withdrawal of the air pollution control permits for these sites.

c. This permit does not become effective upon the date issued as stated on its first page but instead becomes effective upon timely receipt by the Illinois EPA of documentation as follows demonstrating that the Permittee has obtained the requisite amount of VOM emission offsets as specified above:

i. ASF must submit a letter or other document signed by a responsible official or other authorized agent certifying that a transfer of emission reduction credits from shutting down its East Chicago plant has been made to the Permittee in the requisite amount to provide offsets for this proposed facility. In this letter, ASF must also acknowledge that operations at its East Chicago plant have permanently ceased and emissions have not been generated elsewhere in the Chicago ozone nonattainment area.

ii. The Permittee must submit a letter or other document signed by a corporate officer or other authorized agent certifying that a transfer of emission reduction credits has been received from ASF in the requisite amount to provide offsets for this proposed facility. In this letter, the Permittee must also acknowledge that it may subsequently transfer these offsets to another party or return them to ASF only if the preparation for or actual construction of the proposed facility is terminated and this permit expires or is withdrawn, as the Permittee is otherwise under a legal obligation to maintain these offsets pursuant to 35 IAC 203.602.

iii. The above material must be received by the Illinois EPA by _____ ___, 2002 (within six months of the date this permit is issued, as stated on its first page).

iv. If the following additional requirements are met and use of emission reduction credits from the alternate source is approved by the Illinois EPA, a source other than ASF may supply emission reduction credits for the proposed facility, serving in place of ASF for the above provisions:

A. The alternate source of emission reduction credits must be located in Illinois in the Chicago ozone nonattainment area,

B. Any proposal for an alternate source of emission reduction credits must be received by the Illinois EPA for review not later than _____ ___, 2002 (within three months of the date this permit is issued, as stated on its first page) and be accompanied by detailed documentation to support the amount and creditability of the emission reduction credit,

C. This permit must be amended by the Illinois EPA to identify the alternate source of emission reduction credits pursuant to a request from the Permittee for such a permit amendment if the Illinois EPA approves the use of emission reduction credits from an alternate source, and

D. The alternate source of emission reduction credits must be subject to appropriate measures given the nature of the underlying emission reduction to make the emission reduction permanent and federally enforceable.

d. This permit shall become effective 7 calendar days after the receipt of material as specified by Condition 3(c)(i), (ii) and (iii) or receipt of material and amendment of this permit by the Illinois EPA in accordance with Condition 3(c)(ii), (iii) and (iv). For the purpose of Standard Condition 1, this “effective date” shall substitute for the “date of issuance” when calculating the one-year period within which a continuous program of construction of the facility must start if this permit is not to expire. Construction of the proposed facility shall not commence until the permit is effective.

Condition 3 represents the actions identified in conjunction with this project to ensure that the project is accompanied by emission offsets and does not interfere with reasonable further progress for VOM.

Note: Emission offsets are being required in conjunction with the issuance of the permit because USEPA has not approved provisions of the ERMS that would allow compliance with the ERMS to satisfy the offset requirements for a major modification in 35 IAC Part 203.

4. This permit is issued based on negligible emissions of volatile organic material from the stenciling operation. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

5. The Permittee is allowed to operate under this permit until the Title V permit is renewed.

If you have any questions on this permit, please call Bob Smet at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RPS:psj

cc: Region 1

Project Summary

I. INTRODUCTION

Wheatland Tube Co., Chicago Division (Wheatland) has applied for a Construction Permit for a new continuous steel tube mill (Mill 4). The project is being undertaken in order to increase the production capability of its Chicago facility. The potential increase in emissions of volatile organic material (VOM) from Mill 4 is significant.

II. SOURCE DESCRIPTION

General Process Description:

Wheatland Tube Company, Chicago Division manufactures steel tubing. The process begins with the cleaning of steel strip with a pressurized alkaline (No volatile organic material) cleaning system. The strip is cold formed with a steel-rolling system consisting of progressive dies into the tubular cross-section. The strip is electrically welded into a tube. The tube is then cleaned with a hydrochloric acid solution and rinsed in a fumeless system. After a final rinse, the tube is induction heated to approximately 800°F (427°C). Induction heating prepares the tube for an application of molten zinc galvanizing to the exterior of the tube. After galvanizing, the tube is cooled with a water-quench. The tube is then “final” formed to specified dimensions and coated with a corrosion resistant chromate solution. After the chromate solution is applied, a coating (no VOCs) is applied to the exterior products. The final process involves cutting the finished product continuously coming off the end of the line to length. Additionally, Mill 4 will include a stenciling operation; however, the emissions from stenciling are insignificant.

Interior Coating Process:

The interior surface of the tube is sprayed with a corrosion-resistant and friction-reducing coating. This coating is applied with a paint lance that is inserted into the tube approximately 13’ beyond the welding point. The interior coating is sprayed in a nitrogen atmosphere and cures during the manufacturing process, thus eliminating the need for a drying oven.

III. REVIEW OF EMISSIONS

The potential VOM emissions from the proposed new Mill 4 are 72 tons/year. These emissions are minimized by use of very low VOM content coating. A further explanation of the required level of VOM control can be found in Section VI.

This project is a significant modification for VOM emissions with respect to Non-Attainment Area New Source Review regulations (35 IAC Part 203) because the new Mill 4 will have the potential to emit

more than 25 tons of VOM/year. The increase in VOM emissions as a result of this project is projected at 72 tons/year.

In addition, to simplify recordkeeping requirements at the source and facilitate the Illinois EPA's inspection and compliance verification, there will be a permit condition requiring existing Mill 3 to comply with the same requirements as Mill 4.

IV. APPLICABLE EMISSION STANDARDS

State Emission Standards

All emission sources in Illinois must comply with Illinois Pollution Control Board emission standards. The Board's emission standards represent the basic requirements for sources in Illinois. This site readily complies with applicable Board standards.

The proposed new Mill 4 is subject to VOM limitations found at 35 IAC 218.204(j). This regulation requires that the facility either utilize low VOM coatings or conventional VOM coatings with an add-on control device on Mill 4.

V. ADDITIONAL REQUIREMENTS FOR MAJOR PROJECTS

Construction and operation of a new major source or a modification that results in a significant increase in emissions is subject to two new source review requirements.

The particular regulations that apply depend on the air classification of the area in which the project is located. If an area is classified as nonattainment for the pollutant (meaning air pollution levels exceed the established air quality standard), the regulations for Major Stationary Sources Construction and Modification (MSSCAM) apply. If an area is classified as attainment (i.e., meeting the standards), the rules for Prevention of Significant Deterioration (PSD) apply.

This project is in an area classified as nonattainment for ozone and VOM emissions must be controlled because they are ozone precursors.

Summary of Emissions (Tons/Year)

Pollutant	Significant Emissions Level	Project Emissions
Volatile Organic Material	25	72

This project is subject to MSSCAM for VOM as its emissions are greater than 25 ton/yr, requiring that Lowest Achievable Emission Rate (LAER) be utilized. In addition, emissions offsets in the amount of 1.3 times the projected increase in emissions from this project must be obtained prior to construction.

Furthermore, pursuant to 35 IAC 205.310(a)(3), Wheatland must certify that it will obtain 5/12th of the annual limit of 72 tons/year (i.e., 30 tons) in allotment trading units, or 300 ATU.

Lastly, as a consequence of an increase in hazardous air pollutants (HAP) in excess of 25 tons per year, the requirement of utilizing Maximum Achievable Control Technology (MACT) must be met, pursuant to Section 112(g) of the federal Clean Air Act. The source will be required to meet the compliance requirements drafted for 40 CFR 63, Subpart MMMM, which would allow averaging HAP emissions from the coatings used on the mills. Because USEPA has not yet drafted specific averaging provisions, the permit incorporates relevant averaging provisions from another NESHAP.

VI. MAJOR STATIONARY SOURCE CONSTRUCTION AND MODIFICATION (MSSCAM)

For a major project, the rules for Major Stationary Sources Construction and Modification (MSSCAM), 35 IAC Part 203) require: 1) an "emission limit" which represents the Lowest Achievable Emission Rate (LAER), 2) compensating emission reductions from other sources commonly called offsets, 3) an analysis of alternatives to the project, and 4) proof that other existing major sources owned by the source within Illinois are in compliance with applicable air pollution regulations. A discussion of these requirements for VOM emissions follows.

A. Lowest Achievable Emission Rate (LAER)

LAER is defined at 35 IAC 203.301 as:

The more stringent rate of emissions based on the following:

1. The most stringent emission limitation, which is contained in the implementation plan of any state for such class or category of stationary source, unless it is demonstrated that such limitation is not achievable;

2. The most stringent emission limitation which is achieved in practice or is achievable by such a class or category of stationary source; or

3. The applicable new source performance standard.

The Mill #4 will be required to implement LAER. Wheatland prepared a LAER demonstration identifying the control techniques and emission limits required of other similar operations to control VOM. This demonstration included information from the USEPA BACT/LAER Clearinghouse, which showed, for this operation, that there were no approaches for VOM control.

The Illinois EPA determined that LAER for this new Mill #4 is the use of very low VOM content coating material for the interior coating and "VOM free" coating for the exterior. Wheatland evaluated the possibility of water based coating material and further control of VOM emission by an afterburner. The following VOM content coating material is considered as LAER for Mill 4.

- 2.3 lb VOM/gal for other tubing.

- 1.8 lb VOM/gal for conduit electrical tubing.

BACT/LAER Clearinghouse has also been reviewed for similar operation to determine required control technologies across the United States. There is no BACT/LAER determination for similar operation in BACT/LAER clearinghouse.

B. Emission Offsets

Wheatland obtains creditable emission decreases or offsets from the shutdown of ASF-Keystone, Inc.

The emissions associated with a major project in a nonattainment area must not interfere with the state plan to achieve attainment of the national air quality standards.

This plan consists of new programs and regulations designed to achieve the national standards and are based on a detailed analysis of current and projected emission and air quality levels. In order to account for the emissions increase from a major project proposed in a nonattainment area, the applicant must provide compensating emission reductions from other sources that have not been relied on in the attainment plan. These emission reductions are commonly referred to as "emission offsets".

Because the Chicago Area is a severe ozone nonattainment area, emission offsets at a ratio of 1.3:1.0, i.e., for each ton of VOM emissions from a project, 1.3 ton of offsets must be provided. At this ratio, the applicant is required to provide an emission offset of 72 tons/year for this project.

Since Mill 4 alone has emission increase of 72 tons VOM/year, an offset of 93.6 tons VOM/year has been secured prior to construction of this Mill 4.

C. Certification of Existing Source Compliance

Wheatland has only this major plant located in Illinois: the Chicago facility at which the proposed expansion will take place. The Illinois EPA has verified the applicant's

statement that this plant has been in compliance with all Illinois air pollution regulations.

D. Analysis of Alternatives to the Proposed Project

Wheatland has provided an analysis of alternatives that concludes that from an economic, environmental, and energy conservation viewpoint, the proposed project presents a better choice than other alternatives, (i.e., building the plant elsewhere).

VII. EMISSOIN REDUCTION MARKET SYSTEM (ERMS)

The Illinois EPA has determined that Wheatland will be in compliance with applicable ERMS rules. Wheatland will satisfy the ERMS allotment trading unit (ATU) requirements by utilizing its existing ATU allotment.

VIII. MAXIMUM ACHIEVALBE CONTROL TECHNOLOGY (MACT)

The Illinois EPA determined that MACT for purposes of 112(g)/NESHAP for this new Mill 4 is the use of very low HAP content coating material for the inner diameter, outer diameter and end sprays. The following HAP content coating material is considered as MACT for Mill #4:

1.94 lb HAP/gallon of coating solids

averaged over all coatings used on the mill.

IX. REQUEST FOR COMMENTS AND PROPOSED HEARING

It is the Illinois EPA’s determination that the proposed project meets all applicable state and federal air pollution control equipment, subject to the conditions proposed in the draft permit. The Illinois EPA therefore is proposing to issue a permit for this project.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public concern is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.

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