State of Utah

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Department of
Environmental Quality

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DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-IN161020001-22

November 14, 2022

Austin Payne
Steves and Sons, Incorporated
203 Humble Avenue
San Antonio, TX 78225
apayne@stevesdoors.com

Dear Mr. Payne:

Re: Intent to Approve:
New Door Manufacturing Facility
Project Number: N161020001

The attached document is the Intent to Approve (ITA) for the above-referenced project. The ITA is subject to public review. Any comments received shall be considered before an Approval Order (AO) is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Future correspondence on this ITA should include the engineer's name, **Mr. Enqiang He,** as well as the DAQE number as shown on the upper right-hand corner of this letter. Mr. Enqiang He, can be reached at (801) 556-1580 or ehe@utah.gov, if you have any questions.

Sincerely,

Alan D. Humpherys, Manager
New Source Review Section

BCB:EH:jg

cc: Bear River Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

INTENT TO APPROVE
DAQE-IN161020001-22
New Door Manufacturing Facility

Prepared By
Mr. Enqiang He, Engineer
(801) 556-1580
ehe@utah.gov

Issued to
Steves and Sons, Incorporated - Door Manufacturing Plant

Issued On
November 14, 2022

New Source Review Section Manager
Alan D. Humpherys

TABLE OF CONTENTS

GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name
Steves and Sons, Incorporated

Source Name
Steves and Sons, Incorporated - Door Manufacturing Plant

Mailing Address
203 Humble Avenue
San Antonio, TX 78225

Physical Address
1080 North Main Street
Brigham City, UT 84302

Source Contact
Name Austin Payne
Phone (210) 924-5111 Ext 1394
Email apayne@stevesdoors.com

UTM Coordinates
415,500 m Easting
4,598,250 m Northing
Datum NAD83
UTM Zone 12

SIC code 2431 (Millwork)

SOURCE INFORMATION

General Description
Steves and Sons, Incorporated (Steves) has proposed to construct a wood door manufacturing facility in Brigham City in Box Elder County. The door manufacturing processes include woodworking, adhesive applications, and painting operations. Particulate emissions generated from woodworking operations are controlled with baghouses and cyclones. Particulate emissions from paint booths are controlled with filters. Natural gas consumption is limited to 70.4 million scf per year.

NSR Classification
New Minor Source

Source Classification
Located in Salt Lake City UT $PM_{2.5}$ NAA
Box Elder County
Airs Source Size: B

Applicable Federal Standards
None

Project Description
Steves has proposed to construct a wood door manufacturing facility in Brigham City. The door manufacturing processes include woodworking, adhesive applications, and painting operations. The following is a list of processes and associated equipment:

1. Woodworking operations. This process involves door sizing, routing, sawing, and grinding. Particulate emissions are controlled by two sets of baghouses and cyclones. Each set include a baghouse and a cyclone in series.

2. Adhesive applications. Adhesives are used to assemble the door parts.
3. Primer applications. After the doors are sized, they are primed in the two (2) paint booths, then dried in electric heaters, and then stacked for customers to pick up.

In addition to the processes above, the owner/operator shall also consume natural gas in the boiler and heaters. Natural gas consumption is limited to 70.4 million scf per year.

SUMMARY OF EMISSIONS

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

Criteria Pollutant	Change (TPY)	Total (TPY)
CO_2 Equivalent	4230.00	4230.00
Carbon Monoxide	2.96	2.96
Nitrogen Oxides	3.52	3.52
Particulate Matter - PM_{10}	9.26	9.26
Particulate Matter - $PM_{2.5}$	9.26	9.26
Sulfur Dioxide	0.02	0.02
Volatile Organic Compounds	27.57	27.57

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Formaldehyde (CAS #50000)	180	180
Glycol Ethers (CAS #EDF109)	8080	8080
Hexane (CAS #110543)	127	127
Methanol (CAS #67561)	2360	2360
Vinyl Acetate (CAS #108054)	420	420
	Change (TPY)	**Total (TPY)**
Total HAPs	5.58	5.58

PUBLIC NOTICE STATEMENT

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Director.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in the Box Elder News & Journal on November 16, 2022. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing within 15 days of publication, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

SECTION I: GENERAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]
I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]
I.8	The owner/operator shall submit documentation of the status of construction or modification to the Director within 18 months from the date of this AO. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]

SECTION II: PERMITTED EQUIPMENT

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

II.A THE APPROVED EQUIPMENT

II.A.1	**The Brigham City Facility** A Wood Door Manufacturing Facility

II.A.2	**Wood Working Operations** Two (2) sets of cyclones and baghouses, each set include a cyclone and a baghouse in series
II.A.3	**Adhesive Applications** One (1) automated spreader (minimum 65% transfer efficiency)
II.A.4	**Primer Applications** Two (2) paint booths with HVLP sprayers (minimum 65% transfer efficiency)
II.A.5	**Various Natural gas Combustion Equipment** Including space heaters, door heaters, and hot water heaters, each rated less than 5 MMBtu/hr Exempt equipment; for information only

SECTION II: SPECIAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**Plant-Wide Requirements**
II.B.1.a	The owner/operator shall not allow visible emissions from the following emission points to exceed the following values: A. All natural gas combustion equipment - 10% opacity B. All baghouse stacks - 10% opacity C. All paint booth stacks - 10% opacity D. All other points - 10% opacity. [R307-401-8]
II.B.1.a.1	Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401-8]
II.B.1.b	The owner/operator shall not consume more than 70.4 million scf of natural gas per rolling 12-month period. [R307-401-8]
II.B.1.b.1	The owner/operator shall: A. Determine natural gas consumption by monthly billing statements from the utility company B. Use the monthly billing statements to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months C. Keep the natural gas consumption records for all periods the plant is in operation. [R307-401-8]

II.B.2	**Requirements for Wood Working Operations**
II.B.2.a	The owner/operator shall install and operate two (2) dust collection and removal systems, each of which consists of a cyclone and a baghouse in series. All exhaust air from the woodworking operations, including door sizing, routing, sawing, and grinding, shall be routed through the cyclone-baghouse systems before being vented to the atmosphere. [R307-401-8]
II.B.2.b	The owner/operator shall install and operate a magnehelic pressure gauge to measure the static pressure drop across each baghouse. [R307-401-8]
II.B.2.b.1	The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. [R307-401-8]
II.B.2.b.2	The pressure gauge shall measure the pressure drop in 1-inch water column increments or less. [R307-401-8]
II.B.2.c	The owner/operator shall maintain the static pressure drop across each baghouse during operation between 1 and 4 inches of water column. [R307-401-8]
II.B.2.c.1	The owner/operator shall record the pressure drop at least once per operating day. [R307-401-8]
II.B.2.c.2	The pressure drop records shall be kept for all periods the plant is in operation. [R307-401-8]
II.B.3	**Adhesive Application Requirements**
II.B.3.a	The owner/operator shall comply with the applicable requirements and limitations in R307-342, Adhesive and Sealants. [R307-342]
II.B.4	**Primer Application Requirements**
II.B.4.a	The owner/operator shall comply with the applicable requirements and limitations in R307-349, Flat Wood Paneling Coatings. [R307-349]
II.B.4.b	The owner/operator shall install and operate a set of paint arrestor particulate filters for each paint booth to control particulate emissions. All air exiting the booths shall pass through this control system before being vented to the atmosphere (outside building/operation). The filters shall be maintained and replaced according to the manufacturer's instructions. [R307-401-8]
II.B.5	**VOC & HAP Requirements**
II.B.5.a	The owner/operator shall not emit more than the following from evaporative sources (adhesive and primer applications) on site: 27.37 tons per rolling 12-month period of VOCs 0.09 tons per rolling 12-month period of formaldehyde 4.04 tons per rolling 12-month period of glycol ethers 1.18 tons per rolling 12-month period of methanol 0.21 tons per rolling 12-month period of vinyl acetate 5.52 tons per rolling 12-month period of all HAPs combined. [R307-401-8]

II.B.5.a.1	The owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. The owner/operator shall use a mass-balance method to calculate emissions from evaporative sources. The owner/operator may use the following equations with applicable units to comply with the mass-balance method: VOCs = [% VOCs by Weight/100] x [Density] x [Volume Consumed] HAP* = [% HAP by Weight/100] x [Density] x [Volume Consumed] *18% of formaldehyde, vinyl acetate, and glycol ethers in the adhesive will emit to the atmosphere; therefore, emissions for these HAPs shall be calculated as 18% multiplied by the above equation using mass-balance method. [R307-401-8]
II.B.5.a.2	The owner/operator shall use a mass-balance method to quantify any amount of VOCs and HAPs reclaimed. The owner/operator shall subtract the amount of VOCs and HAPs reclaimed from the quantities calculated above to provide the monthly total emissions of VOCs and HAPs. [R307-401-8]
II.B.5.a.3	The owner/operator shall keep records each month of the following: A. The name (as per SDS) of the VOC- and HAP-emitting material B. The maximum percent by weight of VOCs and each HAP in each material used C. The density of each material used D. The volume of each VOC- and HAP-emitting material used E. The amount of VOCs and the amount of each HAP emitted from each material F. The amount of VOCs and the amount of each HAP reclaimed and/or controlled from each material G. The total amount of VOCs, the total amount of each HAP, and the total amount of all HAPs combined emitted from all materials (in tons) [R307-401-8]
II.B.5.b	The owner/operator shall store the VOC/HAP containing materials in closed and airtight containers when the materials are not in use. [R307-401-8]

PERMIT HISTORY

This Approval Order shall supersede (if a modification) or will be based on the following documents:

Is Derived From	NOI dated May 22, 2022
Incorporates	Additional information dated August 19, 2022
Incorporates	Additional information dated August 24, 2022

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by Environmental Protection Agency to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - Title 40 of the Code of Federal Regulations Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal Division of Air Quality use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - Title 40 of the Code of Federal Regulations 52.21 (b)(49)(i)
GWP	Global Warming Potential - Title 40 of the Code of Federal Regulations Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds