State of Utah

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Department of
Environmental Quality

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DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-IN160480001-22

March 2, 2022

Stephanie Heldt-Sheller
Geneva Pipe Company
1465 West 400 North
Orem, UT 84057
jsandgren@genevapipe.com

Dear Ms. Heldt-Sheller:

Re: Intent to Approve:
New Concrete Pipe Fabrication Facility
Project Number: N160480001

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

ADH:EH:jg

cc: Utah County Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

INTENT TO APPROVE
DAQE-IN160480001-22
New Concrete Pipe Fabrication Facility

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

Issued to
Geneva Pipe Company- Orem Pipe Fabrication Operation

Issued On
March 2, 2022

New Source Review Section Manager
Alan D. Humpherys

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GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name
Geneva Pipe Company

Source Name
Geneva Pipe Company- Orem Pipe Fabrication Operation

Mailing Address
1465 West 400 North
Orem, UT 84057

Physical Address
1465 West 400 North
Orem, UT 84057

Source Contact
Name Jesse Sandgren
Phone (801) 225-2416
Email jsandgren@genevapipe.com

UTM Coordinates
437,908 m Easting
4,461,787 m Northing
Datum NAD83
UTM Zone 12

SIC code 3272 (Concrete Products, Except Block & Brick)

SOURCE INFORMATION

General Description
Geneva Pipe Company (GPC) operates a pre-cast concrete pipe facility in Orem in Utah County for storm drain/sanitary sewer systems. Production processes include two concrete batch plants and a form manufacturing process. GPC also utilizes natural gas combustion equipment in the pipe-making processes.

NSR Classification
New Minor Source

Source Classification
Located in Southern Wasatch Front O3 NAA, Salt Lake City UT $PM_{2.5}$ NAA
Utah County
Airs Source Size: B

Applicable Federal Standards
None

Project Description
GPC operates the following equipment/processes:

Lower Concrete Batch Plant: Pre-washed aggregates arrive at the batch plant via trucks and are stored in five different bins. Aggregate materials are discharged from the bins to the conveyor belt and transferred into a mixer. Cement and fly ash are loaded to the silos from bulk trucks pneumatically. PM from the loading operations are controlled by the baghouses. Cement and fly ash are discharged from the

silos to the belt conveyor and transferred into the mixer. Water will be added to the mixer and mixed with the materials in the mixer. The mixed materials will be used to make pipes, manholes, grade rings, culverts, risers, lids, and other parts. Based on client specifications, some manholes are manually coated with non-fibered foundation coating.

Upper Concrete Batch Plant: Pre-washed aggregates arrive at the batch plant via trucks and are stored in three different bins. Aggregate materials are discharged from the bins to the conveyor belt and transferred into a mixer. Cement and fly ash are loaded to the silos from bulk trucks pneumatically. PM from the loading operations are controlled by the baghouses. Cement and fly ash are discharged from the silos to the belt conveyor and transferred into the mixer. Additives arrive at the site via trucks and then stored in different totes. Additives are pumped into the mixer as required. Water will be added to the mixer and mixed with the materials in the mixer. The mixed materials are then transferred via a bucket and a crane to cover the forms created in the form manufacturing processes.

Form Manufacturing Processes: Styrofoam is used to create negative molds of desired shapes. A release agent such as wax is applied around the styrofoam. Product is then sprayed over the waxed styrofoam. Once the liner is dried and cured, it is removed from the foam and casted with concrete from the Upper Concrete Batch plant.

Combustion Equipment: there are various natural gas-fired equipment, including heaters, furnaces, steamers, boilers. The equipment is used in the above manufacturing processes and rated from 0.03 to 7 MMBtu/hr.

Haul Road/Fugitive Dust Sources: the facility transports raw materials and finished products on the property. Paved and unpaved haul road lengths are 4,080 and 1,320 ft, respectively. There are also unpaved in-plant haul roads that are used for incidental traffic. Aggregate materials that cannot be used in the processes will be stored in a storage pile area for both lower and upper concrete batch plants. The storage pile area is limited to 1 acre.

Welding Operations: GPC conducts welding activities for equipment maintenance and repairs at the Lower and Upper Concrete Batch Plants.

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		2449.00
Carbon Monoxide		1.71
Nitrogen Oxides		2.04
Particulate Matter - PM_{10}		4.98
Particulate Matter - $PM_{2.5}$		0.91
Sulfur Dioxide		0.01
Volatile Organic Compounds		9.61

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Styrene (CAS #100425)		17960
	Change (TPY)	**Total (TPY)**
Total HAPs		8.98

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 Daily Herald on March 5, 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 Orem Facility** Pre-Cast Concrete Pipe Plants
II.A.2	**Lower Concrete Batch Plant** Rated at 15.6 cubic yards (cy) /hr Including the following: One (1) fly ash silo (57k lbs capacity) with a baghouse One (1) cement storage silo (220k lbs capacity) with a baghouse One (1) cement and (1) fly ash conveyor systems One (1) coarse storage bin rated at 15 cy Three (3) sand storage bins rated at 25 cy each One (1) fine storage bin rated at 15 cy One (1) aggregate conveying system One (1) bucket elevator rated at 62,400 lb/hr One (1) mixer rated at 1.3 cy
II.A.3	**Upper Concrete Batch Plant** Rated at 24 cy/hr Including the following: One (1) fly ash silo (107k lbs capacity) with a baghouse One (1) cement storage silo (220k lbs capacity) with a baghouse One (1) cement and one (1) fly ash conveyor systems One (1) coarse storage bin rated at 15 cy One (1) sand storage bins rated at 25 cy One (1) fine storage bin rated at 15 cy One (1) aggregate conveyor system Misc. admixture storage totes One (1) bucket elevator rated at 96,000 lb/hr One (1) mixer rated at 2 cy
II.A.4	**One (1) Polyurea Spray Booth** Airless spray guns Controlled with dry filter pads
II.A.5	**One (1) Fiberglass Reinforced Plastic Spray Booth** Chop guns Controlled with dry filter pads

II.A.6	**Two (2) Natural Gas-Fired Boilers** Rated at 5 and 7 MMBtu/hr
II.A.7	**Various Natural Gas-Fired Combustion Devices** Including boilers, heaters, furnaces, and steamers Rated less than 5.0 MMBtu/hr each
II.A.8	**Misc. Welding Activities**

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	**Site-Wide Requirements**
II.B.1.a	Unless otherwise specified in this AO, the owner/operator shall not allow visible emissions from any source on site to exceed 20% opacity. [R307-401-8]
II.B.1.a.1	Unless otherwise specified in this AO, opacity observations of visible 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 allow visible emissions to exceed the following opacity limits: A. Any spray booth exhaust point - 10% B. Any natural gas combustion equipment - 10%. [R307-401-8]
II.B.2	**Lower and Upper Concrete Batch Plant Requirements**
II.B.2.a	The owner/operator shall not produce more than the following: A. 45,000 cubic yards of concrete per rolling 12-month period in the Lower Concrete Batch Plant; B. 14,000 cubic yards of concrete per rolling 12-month period in the Upper Concrete Batch Plant. [R307-401-8]
II.B.2.a.1	The owner/operator shall: A. Determine production with production records B. Record production on a daily basis C. Use the production data to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months D. Keep the production records for all periods the plant is in operation. [R307-401-8]

II.B.2.b	The owner/operator shall pneumatically load the cement and fly ash into the silos. A baghouse shall control emissions from each of the cement and fly ash silos. [R307-401-8]
II.B.2.c	The owner/operator shall not allow visible emissions from the concrete batch plants to exceed 7% opacity. [R307-312-4]
II.B.3	**All Haul Roads and Fugitive Dust Source Requirements**
II.B.3.a	The owner/operator shall submit and comply with a FDCP consistent with R307-309-6. [R307-309-6, R307-401-8]
II.B.3.b	The owner/operator shall not allow visible emissions from haul roads and fugitive dust sources to exceed 20% opacity on site and 10% at the property boundary. [R307-309-5]
II.B.3.b.1	Visible emission determinations for fugitive dust from haul roads and operational areas shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than one-half vehicle length behind the vehicle and not less than one-half the height of the vehicle. [R307-309-5]
II.B.3.c	The owner/operator shall not exceed the following haul road limits: A. 1,320 ft. of unpaved haul roads B. 5,400 ft. of total haul roads. [R307-401-8]
II.B.3.c.1	To determine compliance with the length of the haul roads, the owner/operator shall measure the total length of the haul truck routes using aerial photographs, land surveys, on-site measurements, or other methods acceptable to the Director. [R307-401-8]
II.B.3.d	The owner/operator shall use water application on all unpaved haul roads to maintain the opacity limits listed in this AO. [R307-401-8]
II.B.3.d.1	Records of water treatment shall be kept for all periods when the plant is in operation. The records shall include the following items: A. Date of treatment B. Number of treatments made and quantity C. Rainfall received, if any, and approximate amount D. Time of day treatments were made E. Records of temperature if the temperature is below freezing. [R307-401-8]
II.B.3.e	The owner/operator shall periodically water spray and sweep the paved haul roads on site to meet the opacity limits in this AO. [R307-401-8]

II.B.3.e.1	The owner/operator shall maintain records of cleaning the paved roads for all periods when the plant is in operation. The records shall include: A. Date of cleaning; B. Number of sweep/water sprays made; C. Rainfall received, if any, and approximate amount, and D. Time of day sweeping/spray were made. [R307-401-8]
II.B.3.f	The owner/operator shall apply water to all storage piles on site to control fugitive emissions. Water shall be applied as required to maintain the opacity limit listed in this AO when the temperature is above freezing. [R307-401-8]
II.B.3.g	The owner/operator shall not exceed 1 acre of combined area occupied by all storage piles. [R307-401-8]
II.B.3.g.1	To determine compliance with the total acres of the storage piles, the owner/operator shall measure the total area of the storage piles at least once every six months and shall maintain a record of the total acres of the storage piles. To determine the acres of the storage piles on site, the owner/operator shall use a handheld GPS, or aerial photographs, or other methods acceptable to the Director, to measure each of the storage piles on site. [R307-401-8]
II.B.3.g.2	Records of the total acres of the storage piles shall contain the following: A. Date of measurements B. Size of each storage pile on site C. Total acres of all storage piles combined. [R307-401-8]
II.B.4	**Form Manufacturing Requirements**
II.B.4.a	The owner/operator shall control emissions from the spray booths with particulate filters at all times. [R307-401-8]
II.B.4.b	The owner/operator shall not emit more than the following from the form manufacturing processes on site: 9.52 tons per rolling 12-month period of VOCs 8.98 tons per rolling 12-month period of styrene 8.98 tons per rolling 12-month period of all HAPs combined (including styrene). [R307-401-8]

II.B.4.b.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] [R307-401-8]
II.B.4.b.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.4.b.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	**Natural Gas Consumption Requirements**
II.B.5.a	The owner/operator shall not consume more than 32.6 MMSCF of natural gas per rolling 12-month period. [R307-401-8]
II.B.5.a.1	The owner/operator shall: A. Determine consumption with monthly bill statements from a utility company B. Record consumption on a monthly basis C. Use the consumption data to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months D. Keep the natural gas consumption records for all periods the plant is in operation. [R307-401-8]
II.B.6	**Limitation on Welding Activities**
II.B.6.a	The owner/operator shall not consume more than 1.2 tons of welding materials per rolling 12-month period. [R307-401-8]

II.B.6.a.1	The owner/operator shall: A. Determine production with vendor receipts B. Record consumption on a monthly basis C. Use the consumption data to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months D. Keep the consumption records for all periods the plant is in operation. [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 February 10, 2021
Incorporates	Additional information dated April 26, 2021
Incorporates	Additional information dated June 17, 2021
Incorporates	Additional information dated July 19, 2021
Incorporates	Additional information dated September 13, 2021
Incorporates	Additional information dated December 15, 2021
Incorporates	Additional information dated February 10, 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