State of Utah

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Department of
Environmental Quality

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DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-IN143660002-21

June 3, 2021

Jay Seeley
Amcor Masonry Products
333 South Redwood Road
North Salt Lake, UT 84054
jay.seeley@oldcastle.com

Dear Mr. Seeley:

Re: Intent to Approve:
New Approval Order to Add a Pre-Packaged Cement Bagging Batch Plant to the Facility that Exists Under the Small Source Exemption, EN0143660001-11, dated May 16, 2011
Project Number: N143660002

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, **Andrea Bartlett,** as well as the DAQE number as shown on the upper right-hand corner of this letter. Andrea Bartlett, can be reached at (801) 834-8417 or abartlett@utah.gov if you have any questions.

Sincerely,

Alan D. Humpherys, Manager
New Source Review Section

ADH:AB:sa

cc: Davis County Health Department

STATE OF UTAH

Department of Environmental Quality
Division of Air Quality

INTENT TO APPROVE
DAQE-IN143660002-21
New Approval Order to Add a Pre-Packaged Cement Bagging Batch Plant to the Facility that Exists Under the Small Source Exemption, EN0143660001-11, dated May 16, 2011

Prepared By
Andrea Bartlett, Engineer
(801) 834-8417
abartlett@utah.gov

Issued to
Amcor Masonry Products - Concrete Masonry Products Manufacturing Plant

Issued On
June 3, 2021

New Source Review Section Manager
Alan D. Humpherys

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GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name
Amcor Masonry Products

Source Name
Amcor Masonry Products - Concrete Masonry Products Manufacturing Plant

Mailing Address
333 South Redwood Road
North Salt Lake, UT 84054

Physical Address
333 South Redwood Road
North Salt Lake, UT 84054

Source Contact
Name Jay Seeley
Phone (801) 936-7628
Email jay.seeley@oldcastle.com

UTM Coordinates
421,267 m Easting
4,521,144 m Northing
Datum NAD83
UTM Zone 12

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

SOURCE INFORMATION

General Description
Amcor Masonry Products (Amcor) is a facility consisting of concrete batch plants that produce cement block and paver units using a wet material process. Amcor is proposing a new pre-packaged cement bagging batch plant. These operations include silos, material drying, mixing, and packaging materials. They are requesting to increase the existing facilities' production to 101,500 TPY of cement blocks and 275,000 TPY of cement paver units. They are requesting to produce 627,000 tons of cement, mortar, and stucco in the proposed bagging plant

NSR Classification
New Minor Source

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

Applicable Federal Standards
None

Project Description
Amcor is a facility consisting of concrete batch plants that produce cement block and paver units using a wet material process. Amcor has requested to install a new pre-packaged cement bagging batch plant in their facility. The facility already includes a cement paver and cement block plant that previously qualified for a Small Source Exemption. The plants on site each have a mixer, a baghouse, silos, a curing chamber room, and conveyors. The concrete paver plant also includes a paver tumbler controlled by a baghouse. The proposed cement bagging plant includes two (2) mixers, one (1) screen, one (1) 50 MMBtu/hr aggregate dryer, three (3) baghouses, twelve (12) storage silos, and various material handling equipment.

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		13725.00
Carbon Monoxide		9.16
Nitrogen Oxides		5.42
Particulate Matter - PM_{10}		9.55
Particulate Matter - $PM_{2.5}$		2.86
Sulfur Dioxide		0.07
Volatile Organic Compounds		0.63

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Generic HAPs (CAS #GHAPS)		360
	Change (TPY)	**Total (TPY)**
Total HAPs		0.18

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 ITA will be published in the Salt Lake Tribune on June 6, 2021. 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	**Amcor Masonry Products** Cement block, cement paver, and cement bagging batch plants
II.A.2	**Concrete Paver Facility**
II.A.3	**One (1) Central Mix Concrete Batch Plant** Capacity: 74 cubic yards per hour Control: Baghouse (16,000 acfm)
II.A.4	**One (1) Mixer** Capacity: 3 cubic yards
II.A.5	**Paver Facility Silos** One (1) Elevated Fly Ash Silo Two (2) Elevated Cement Storage Silos Control: Bin Vents (Passive)

II.A.6	**Tumbler Unit** Tumbler to distress pavers Control: Baghouse (3,040 acfm)
II.A.7	**Paver Plant Conveyors** Various conveyors Control: Covered
II.A.8	**Curing Chamber Room** Rating: Under 5 MMBtu/hr Fuel: Natural Gas For Informational Purposes only
II.A.9	**Concrete Block Facility**
II.A.10	**One (1) Central Mix Concrete Batch Plant** Capacity: 100 cubic yards per hour Control: One (1) Baghouse (20,000 acfm)
II.A.11	**One (1) Mixer** Capacity: Two (2) cubic yards
II.A.12	**Block Facility Silos** One (1) Elevated Fly Ash Silo Two (2) Elevated Cement Storage Silos Control: Bin Vents (Passive)
II.A.13	**Block Plant Conveyors** Various Conveyors Control: Covered
II.A.14	**Curing Chamber Room** Rating: Under 5 MMBtu/hr Fuel: Natural Gas For Informational Purposes only
II.A.15	**Concrete, Mortar and Stucco Bagging Facility**
II.A.16	**One (1) Central Mix Concrete Batch Plant** Capacity: 84.17 cubic yards per hour
II.A.17	**One (1) Dryer** Rating: 50 MMBtu/hr Fuel: Natural Gas Control: Low NO_x Burner Baghouse (36,000 acfm)
II.A.18	**Two (2) Mixers** Capacity: Two (2) cubic yards, each Various hoppers and packers. Control: Two (2) Baghouses (20,000 acfm, each)
II.A.19	**Dry Sizing Screen** Capacity: 150 tph Control: Bin Vent (Powered, 2,655 acfm)

II.A.20	**Bagging Facility Silos** Three (3) Fly Ash Storage Silos Control: Bin Vents (Passive) Five (5) Cement Storage Silos Control: Bin Vents (Passive) Four (4) Various Aggregate Storage Silos Control: Bin Vents (Powered)
II.A.21	**Bagging Facility Conveyors** Various conveyors Control: Covered
II.A.22	**Two (2) Front End Loaders** For Informational Purposes 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	**Amcor Masonry Products Requirements:**
II.B.1.a	The owner/operator shall not allow visible emissions points to exceed the following values: A. All conveyor transfer points - 7% opacity B. All conveyor drop points - 20% opacity C. All concrete batch plants - 7% opacity D. All baghouses and fabric filter systems- 10% opacity E. All other points - 20% opacity [R307-305-3, R307-309-5, R307-312-4, 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. [R307-305-3]
II.B.1.b	The owner/operator shall not produce more than the following: A. 627,000 tons of pre-packaged cement, concrete, and mortar/stucco material per rolling 12-month period B. 275,000 tons of concrete pavers per rolling 12-month period C. 101,500 tons of concrete blocks per rolling 12-month period [R307-401-8]

II.B.1.b.1	The owner/operator shall: A. Determine production by production scales, scale house records, vendor receipts, and/or any other appropriate mechanism. 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. [R307-401-8]
II.B.1.c	The owner/operator shall cover all conveyors, transfer points and drop points that are located outside of a building. Conveyors, transfer points, and drop points located in a building may be covered or uncovered. [R307-401-8]
II.B.2	**Dryer Requirements**
II.B.2.a	The owner/operator shall not operate the dryer more than 3900 hours per rolling 12-month period. [R307-401-8]
II.B.2.a.1	The owner/operator shall: A. Determine hours of operation through a meter or monitoring and maintaining an operations log. B. Record hours of operation daily. C. Use the hours of operation to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months. [R307-401-8]
II.B.2.b	The owner/operator shall not emit more than the following rates and concentrations from the dryer stack: Pollutant — lb/hr — grains/dscf — ppmv Filterable PM_{10} — 1.64 — 0.024 — Filterable $PM_{2.5}$ — 1.64 — 0.024 — NO_x — 1.82 — — 30 [R307-401-8]
II.B.2.b.1	**Compliance Demonstrations** To demonstrate compliance with the emission limitations above, the owner/operator shall perform stack testing on the emissions unit according to the stack testing conditions contained in this permit. [R307-165-2, R307-401-8]
II.B.2.b.2	**Initial Test** The owner/operator shall conduct an initial stack test within 180 days after startup. [R307-165-2]
II.B.2.b.3	**Test Frequency** The owner/operator shall conduct subsequent stack tests within five (5) years after the date of the most recent stack test. The Director may require the owner/operator to perform a stack test at any time. [R307-165-2, R307-401-8]

II.B.3	**Stack Testing Requirements**
II.B.3.a	The owner/operator shall conduct any stack testing required by this AO according to the following conditions. [R307-401-8]
II.B.3.a.1	**Notification** At least 30 days prior to conducting a stack test, the owner/operator shall submit a source test protocol to the Director. The source test protocol shall include the items contained in R307-165-3. If directed by the Director, the owner/operator shall attend a pretest conference. [R307-165-3, R307-401-8]
II.B.3.a.2	**Testing & Test Conditions** The owner/operator shall conduct testing according to the approved source test protocol and according to the test conditions contained in R307-165-4. [R307-165-4, R307-401-8]
II.B.3.a.3	**Access** The owner/operator shall provide Occupational Safety and Health Administration (OSHA)- or Mine Safety and Health Administration (MSHA)-approved access to the test location. [R307-401-8]
II.B.3.a.4	**Reporting** No later than 60 days after completing a stack test, the owner/operator shall submit a written report of the results from the stack testing to the Director. The report shall include validated results and supporting information. [R307-165-5, R307-401-8]
II.B.3.a.5	**Possible Rejection of Test Results** The Director may reject stack testing results if the test did not follow the approved source test protocol or for a reason specified in R307-165-6. [R307-165-6, R307-401-8]
II.B.3.b	**Test Methods** When performing stack testing, the owner/operator shall use the appropriate EPA-approved test methods as acceptable to the Director. Acceptable test methods for pollutants are listed below. [R307-401-8]
II.B.3.b.1	**Standard Conditions** A. Temperature – 68°F (293 K) B. Pressure - 29.92 in Hg (101.3 kPa) C. Averaging Time - As specified in the applicable test method [40 CFR 60 Subpart A, 40 CFR 63 Subpart A, R307-401-8]
II.B.3.b.2	**Filterable PM_{10}** 40 CFR 60, Appendix A, Method 5; 40 CFR 51, Appendix M, Method 201; Method 201A; or other EPA-approved testing method as acceptable to the Director. If other approved testing methods are used which cannot measure the PM_{10} fraction of the filterable particulate emissions, all of the filterable particulate emissions shall be considered PM_{10}. **Condensable PM_{10}** 40 CFR 51, Appendix M, Method 202 or other EPA-approved testing method as acceptable to the Director. The condensable particulate emissions shall not be used for compliance demonstration but shall be used for inventory purposes. [R307-401-8]

II.B.3.b.3	**Filterable $PM_{2.5}$** 40 CFR 60, Appendix A, Method 5; 40 CFR 51, Appendix M, Method 201A or other EPA-approved testing method as acceptable to the Director. If other approved testing methods are used which cannot measure the $PM_{2.5}$ fraction of the filterable particulate emissions, all of the filterable particulate emissions shall be considered $PM_{2.5}$. **Condensable $PM_{2.5}$** 40 CFR 51, Appendix M, Method 202 or other EPA-approved testing method as acceptable to the Director. The condensable particulate emissions shall not be used for compliance demonstration but shall be used for inventory purposes. [R307-401-8]
II.B.3.b.4	**NO_x** 40 CFR 60, Appendix A, Method 7; Method 7E; or other EPA-approved testing method as acceptable to the Director. [R307-401-8]
II.B.4	**Baghouse Requirements**
II.B.4.a	The owner/operator shall install a baghouse or baghouse systems to control emissions from the Paver Facility, the Paver Facility Tumbler, the Concrete Block Facility, the Concrete, Mortar and Stucco Facility and the dryer in the Concrete, Mortar and Stucco Facility. [R307-401-8]
II.B.4.a.1	The owner/operator shall install a manometer or magnehelic pressure gauges to measure the static pressure differential across each baghouse. [R307-401-8]
II.B.4.a.2	The pressure gauges shall measure the static pressure differential in one-inch water column increments or less. [R307-401-8]
II.B.4.b	The owner/operator shall maintain the static pressure differential of the baghouses between two (2) and seven (7) inches of water column as measured on the pressure gauge. [R307-401-8]
II.B.4.b.1	The owner/operator shall record the static pressure differentials at least once per operating day while the baghouses are operating. [R307-401-8]
II.B.4.b.2	The owner/operator shall maintain the following records of the static pressure differentials. A. Unit identification B. Daily static pressure differential readings C. Date of reading [R307-401-8]
II.B.4.c	At least once every 12 months, the owner/operator shall calibrate the baghouses' pressure gauges in accordance with the manufacturer's instructions or replace the pressure gauges. [R307-401-8]
II.B.4.c.1	The owner/operator shall maintain records of the pressure gauges' calibrations and replacements. [R307-401-8]
II.B.5	**Haul Roads and Fugitive Dust Requirements**
II.B.5.a	The owner/operator shall comply with a FDCP acceptable to the Director for the control of all fugitive dust associated with the Amcor site. [R307-309-6, R307-401-8]

II.B.5.b	The owner/operator shall use water application or other control options contained in R307-309 to minimize emissions from fugitive dust and fugitive emissions sources, including haul roads, storage piles, and disturbed areas. Controls shall be applied to ensure the opacity limits in this AO are not exceeded. [R307-309, R307-401-8]
II.B.5.c	The owner/operator shall not allow visible emissions from haul roads and fugitive dust sources to exceed 20% opacity on site and 10% opacity at the property boundary. [R307-205-4, R307-309-5, R307-401-8]
II.B.5.c.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 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle. [R307-309-5, R307-401-8]
II.B.5.d	The owner/operator shall vacuum sweep and water all haul roads. The vacuum sweep and water shall be of sufficient frequency and quantity to maintain the opacity limit specified in the AO. [R307-401-8]
II.B.5.d.1	Records of vacuum sweeping and water application shall be kept for all periods when the plant is in operation. The records shall include the following items: A. Date and time treatments were made B. Number of treatments made and quantity of water applied C. Rainfall amount received, if any [R307-401-8]

PERMIT HISTORY

This Approval Order shall be based on the following documents:

Supersedes	Small Source Exemption request dated May 2, 2011
Is Derived From	NOI dated October 27, 2020
Incorporates	Additional Information dated November 18, 2020
Incorporates	Additional Information dated December 17, 2020
Incorporates	Additional Information dated January 27, 2021
Incorporates	Additional Information dated March 4, 2021
Incorporates	Additional Information dated March 24, 2021
Incorporates	Additional Information dated May 17, 2021

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