

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>STATIONARY SOURCE AND COMPLIANCE DIVISION</b> <i>Large Coating, Printing and Chemical Operations Team</i> <b>APPLICATION PROCESSING AND CALCULATIONS</b>	PAGE	1 of 14
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	REVIEWED BY	
	DATE	01/09/11

**PERMIT TO OPERATE EVALUATION  
(BAGHOUSES AND TILE CHIP MFG. LINE )**

<b>Applicant's Name</b>	ARMSTRONG WORLD INDUSTRIES INC.
<b>Company I.D.</b>	12155
<b>Mailing Address</b>	5037 PATATA STREET, SOUTH GATE, CA 90280
<b>Equipment Address</b>	P. O. BOX 3016, SOUTH GATE, CA 90280

**EQUIPMENT DESCRIPTION**

**Application No. 517201 (Modification Previous P/N F88282, A/N 461979) (P/C)**

**MODIFICATION OF TILE GRINDING LINE WITH PERMIT NO. F88282 (A/N 461979) BY REPLACING BIN TIPPER (D211) WITH AN IMPROVED NEW BIN TILTER; BY ADDING AN INSPECTION CONVEYOR, ONE TRANSPORT CONVEYOR, ONE LUMP BREAKER & A NEW BIN LOADING STATION; AND BY VENTING LUMP BREAKER TO EXISTING CYCLONE SEPARATOR (C143) WITH THE FOLLOWING EQUIPMENT DESCRIPTION:**

- A. JAEGER BLENDER, 243 CU. F. CAPACITY, 25 H.P. (D138)
- B. JAEGER BLENDER, 243 CU. F. CAPACITY, 25 H.P. (D139)
- C. ONE BELT CONVEYOR, BLENDER DICHARGE, 3 H.P. (D140)
- D. BLENDER FEED SCREW CONVEYOR, 2 H.P. (D141)
- E. PNEUMATIC CONVEYOR, 75 H.P. (D142)
- F. CYCLONE SEPARATOR, 3'-0" DIA. (C143)
- G. BIN STATION, 64 CU. FT. CAPACITY. (D145)
- H. BIN STATION, 64 CU. FT. CAPACITY. (D146)
- I. BIN STATION, 64 CU. FT. CAPACITY. (D147)
- J. CAGE MILL, 175 H.P. (D148)
- K. BIN/BAG LIFTING STATION, HOIST, 1/2 H.P. (D195)
- L. BAG/BIN STATION (D210)
- M. BIN TILTER, SCRAP, VESTIL, MODEL NO. HBD-6-60 (D221)
- N. INSPECTION CONVEYOR (D222)
- O. TRANSPORT CONVEYOR (D223)
- P. LUMP BREAKER, GRUENDLER, 18" X 24", WITH A 15 H.P. MOTOR (D224)
- Q. BIN LOADING STATION (D225)

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**Application No.: 517202 (Admin. Change, Previous P/N F88283, A/N 461980 (C149) (P/O)**

**MODIFICATION OF BAGHOUSE WITH PERMIT NO. F88283 (A/N 461980) BY CORRECTING THE EQUIPMENT DESCRIPTION FOR NUMBER OF FILTER BAGS TO BE 48 (NOT 64) AND DELETE VENTING OF DEVICES D141, D210 AND D211, WITH THE FOLLOWING EQUIPMENT DETAILS:**

1. BAGHOUSE, NO.8, SLY, MODEL NO. 22, , 4' - 0" W X 8' - 0.5" L. X 9' - 11" H., 48 FILTER BAGS, TOTAL 1536 SQ. FT. AREA, WITH A 1 H.P. AUTOMATIC SHAKER. (C149)
2. EXHAUST SYSTEM WITH A 7.5 H. P. BLOWER VENTING THE FOLLOWING EQUIPMENT
  - A. ONE BELT CONVEYOR, BLENDER DICHARGE, 3 H.P. (D140)
  - B. BIN, 64 CU. FT. CAPACITY. (D145)
  - C. BIN, 64 CU. FT. CAPACITY. (D146)
  - D. BIN, 64 CU. FT. CAPACITY. (D147)
  - E. CAGE MILL, 175 H.P. (D148)

**Application No.: 517203 (New Construction)(C226) (P/C)**

1. DUST COLLECTOR, CAMFIL FARR, MODEL NO. GS10Q, 4' - 0" W X 8' - 0.5" L. X 9' - 11" H., 10 CARTRIDGE FILTERS, MODEL TORIT ULTRA-WEB, EACH 1' - 3" DIA. X 3' - 3" L., 3250 SQ. FT. TOTAL FILTER AREA, PULSE JET CLEANED.
2. EXHAUST SYSTEM WITH A 15 H. P. BLOWER VENTING THE FOLLOWING EQUIPMENT
  - A. BAG/BIN STATION (D210)
  - B. BIN TILTER, SCRAP, 3/4 H.P. (D221)
  - C. INSPECTION CONVEYOR (D222)
  - D. TRANSPORT CONVEYOR (D223)
  - E. BIN LOADING STATION (D225)

**Application No. 517204 (Previous A/N 408998, D99 – D130, D205, D206, D207, D227-8)(P/C)**

**MODIFICATION OF PERMIT NO. F57798 (A/N 408998) TO OPERATE A FLOOR TILE MANUFACTURING SYSTEM NO. 2 BY ADDING A BULK BAG UNLOADING STATION.**

ALTERATION OF FLOOR TILE MANUFACTURING SYSTEM NO. 2 CONSISTING OF:

- 1) PNEUMATIC CONVEYOR, COPOLYMER RESIN, WITH A HOPPER, A BAGHOUSE RECEIVER, MIKRO-PUL CO., MODEL NO. 19-10-17, WITH 224 SQ. FT. OF FILTER AREA, A 1 H. P. ROTARY VALVE, AND A 60 H. P. BLOWER.
- 2) HOPPER NO. 1, RESIN, WITH A GATE VALVE AND A FILTER, 276 SQ. FT.
- 3) SCREW CONVEYOR, 5 H. P.

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- 4) PNEUMATIC CONVEYOR, HOMOPOLYMER RESIN, WITH A HOPPER, A BAGHOUSE RECEIVER, MICRO-PUL CO., MODEL NO. 19-10-17, WITH 224 SQ. FT. OF FILTER AREA, 1 H. P. ROTARY VALVE, AND A 60 H. P. BLOWER.
- 5) HOPPER NO. 2, RESIN, WITH A GATE VALVE AND A FILTER, 223 SQ. FT. OF AREA.
- 6) SCREW CONVEYOR, 5 H. P.
- 7) TWO HOPPERS, SCRAP VINYL.
- 8) TWO BELT CONVEYORS, EACH 1 H. P.
- 9) HOPPER PETROLEUM RESIN
- 10) SCREW CONVEYOR, 3 H. P.
- 11) WEIGH SCALE, RESIN
- 12) PNEUMATIC CONVEYOR, LIMESTONE, WITH A HOPPER, A BAGHOUSE RECEIVER, MIKRO-PUL CO., MODEL NO. 69-10, WITH 812 SQ. FT. OF FILTER AREA, A ½ H. P. ROTARY VALVE, AND A 100 H. P. BLOWER.
- 13) HOPPER LIMESTONE.
- 14) SCREW CONVEYOR, 7 ½ H. P.
- 15) HOPPER NO. 1 BAGHOUSE DISCHARGE.
- 16) BELT CONVEYOR
- 17) HOPPER NO. 2, REMIX.
- 18) BELT CONVEYOR, 3 H. P.
- 19) HOPPER NO. 3, REMIX.
- 20) BELT CONVEYOR, 3 H. P.
- 21) HOPPER, LINE SCRAP.
- 22) BELT CONVEYOR, 3 H. P.
- 23) WEIGH SCALE, LIMESTONE, WITH A GATE VALVE.
- 24) HOPPER STABILIZER.

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- 25) SCREW CONVEYOR, 1 H. P.
- 26) WEIGH SCALE, STABILIZER, WITH A ½ H. P. SCREW FEEDER.
- 27) WEIGH SCALE, PIGMENT.
- 28) BELT CONVEYOR, PREBLEND, 5 H. P.
- 29) BLENDER, EIRICH, 100 H. P., WITH A PAN DRIVE, 20 H. P., A HYDRAULIC PUMP, 2 H. P., AND A LUBE PUMP, 33 H. P.
- 30) BELT CONVEYOR, 5 H. P.
- 31) SURGE HOPPER.
- 32) GRAVIMETRIC FEEDER, 5 H. P.
- 33) BELT CONVEYOR, 5 H. P.
- 34) MIXER, FARREL, 600 H. P., WITH A LUBRICATION PUMP, 1 ½ H. P., A DRAIN RETURN PUMP, ½ H. P., A HYDRAULIC PUMP, 5 H. P., A REDUCTION LUBE PUMP, GREA, 2 H. P., AND A DRIVE COOLING FAN.
- 35) BAG STATION, LIMESTONE PURGE.
- 36) BELT COVEYOR, 1 H. P.
- 37) BELT CONEYOR, ¾ H. P.
- 38) MILL, WITH A DRIVE, 150 H. P., A DRIVE COOLING FAN, 5 H. P., A LUBRICATION PUMP, 1 H. P., AN EAST GAUGE ADJUSTING MOTOR, 3 H. P., A WEST GAUGE ADJUSTING MOTOR, 3 H. P., A FRONT ROLL CIRCULATING WATER PUMP, 10 H. P., A 350,000 BTU/HR NATURAL GAS FIRED FRONT ROLL EDGE HEATER, COMBUSTION BLOWER AND CONTROL, 2 H. P., A BACK ROLL CIRCULATING WATER PUMP, 15 H. P., A BACK ROLL CIRCULATING WATER BOOSTER PUMP, 30 H. P.
- 39) BELT CONVEYOR, WITH A 280,000 BTU/HR NATURAL GAS FIRED HEATER, A 260,000 BTU/HR NATURAL GAS FIRED HEATER, AND A 110,000 BTU/HR ELECTRIC HEATER, 32 KW.
- 40) DRUM, LAMINATING AND EMBOSSING, WITH A FILM UNWINDER.
- 41) WATER COOLING BATH, 25 H. P.
- 42) ARROW PRINTER.
- 43) CONVEYOR, PRESS INFEED, 1 H. P.

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- 44) CONVEYOR, ACCUMATION, 1 H. P.
- 45) PUNCH PRESS 25 H. P.
- 46) CONVEYOR, DISCHARGE, ¾ H. P.
- 47) CONVEYOR, GAP TILE, ¾ H. P.
- 48) CONVEYOR, DIVERGE, ¾ H. P.
- 49) CONVEYOR, TRACKING, ¾ H. P.
- 50) CONVEYOR, BELT CURVE, ¾ H. P.
- 51) CONVEYOR, INSPECTION, ¾ H. P.
- 52) SCRAP CHOPPER, PULLMAN, 100 H. P.
- 53) TWO TILE COUNTERS AND STACKERS, EACH 5 H. P.
- 54) TWO CONVEYORS, ACCUMATION, EACH 1 H. P.
- 55) TRANSFER CONVEYOR, ¾ H. P.
- 56) SQUARING AND TURNOVER MACHINE, NO. 1, 2 ½ H. P.
- 57) CONVEYOR, TRANSFER, ¾ H. P.
- 58) DUAL STREAM TILE DESTACKER, 1 ½ H. P.
- 59) ADHESIVE APPLICATOR, ¾ H. P.
- 60) RELEASE PAPER APPLICATOR.
- 61) PAPER UNWIND STAND, 7 ½ H. P.
- 62) TWO TILE COUNTER AND STACKERS, EACH 5 H. P.
- 63) SIX CONVEYORS, 4 ½ H. P. TOTAL.
- 64) SQUARING AND TURNOVER MACHINE NO. 2, 2 ½ H. P.
- 65) PACKAGING FEED CONVEYOR, 5 H. P.
- 66) PACKAGING MACHINE.

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- 67) SEVEN SCRAP DISCHARGING STATIONS.
- 68) SUPER SACK, PIGMENT, TITANIUM OXIDE, 2000 LBS. WITH A 0.5 H.P. BAG AGITATOR.
- 69) HOPPER, ACCURATE, MODEL NO. 1200-91-0503, RECEIVING WITH A GATE VALVE
- 70) WEIGH STATION, PIGMENT, TITANIUM OXIDE, WITH A GATE VALVE AND A SCREW FEEDER.
- 71) CONVEYOR, SCALE FEEDER, 1 H. P.
- 72) BAG UNLOADING STATION, FLEXICON, MODEL BFC-C (D227).
- 73) HOPPER, TYPE "D", MODEL NO. C36-X, 8 CU. FT. CAPACITY (D228)

**Application No.: XXXXXX (C150) (P/O)**

- 1. BAGHOUSE, NO. 7, FLEX-KLEEN, MODEL NO. 84-CT-46, PULSE-JET, WITH TOTAL 460 SQ. FT FILTER AREA.
- 2. EXHAUST SYSTEM WITH A 75 H. P. BLOWER VENTING A CYCLONE SEPARATOR (C143)

**Application No.517200**

RECLAIM/TITLE V PERMIT REVISION

<b>BACKGROUND</b>
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Armstrong World Industries, Inc. is in the floor tile manufacturing business. The applicant has operated this manufacturing operation at 5037 Patata Street, South Gate under I. D. # 12155 for a number of years (since 1938). The facility has a number of active permits from the District to operate blenders, boilers, baghouses, conveyors, heaters, grinders, mills, bin stations, shakers, weighing stations, etc. under Title V/RECLAIM I.D. # 12155. All the outside conveyors are pneumatic and covered; and all other emission points inside the plant are vented to various baghouses for particulate emission control.

The company submitted application no. 517201 to replace one existing bin tipper/tilter with a better modern unit, which will emit fewer fugitive emissions; and add one inspection conveyor, one transport conveyor, one enclosed lump breaker for breaking up pieces of tiles and one enclosed bin loading station to handle recycling of used tiles from larger grocery stores and department stores.

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Application no. 517202 is submitted to correct the equipment description and to delete venting of devices D141, D210 and D211. The total number of bags was always 48, not as described (64) in the permit. This does not change the total filter area of the baghouse. Device D211 is being replaced with new equipment which will be vented to a new dust collector. D141 and D210 will also be vented to the new dust collector.

Application no. 517203 is submitted to install a new dust collector to vent most of the new equipment, which will be added to the grinding line.

The company submitted application no. 517204 to add a bulk bag unloading station to the floor tile manufacturing line, which will be connected to the existing limestone weigh station D116.

Application no. xxxxxx is submitted to repermit an existing baghouse which was inadvertently inactivated in the past due to incorrect information provided by the applicant for a modification project.

The manufacturing process or the throughput is not going to change under this project. However, the new equipment will add more points of dust generation from material unloading and conveying. Thus, there will be negligible increase in emissions of the particulates. The use of a baghouse or a cartridge dust collector to control particulate emissions complies with the current BACT requirements. As a result of recent Rule 1155 design criteria requirements, actual capture efficiency will improve on the devices that are being replaced or connected to the new dust collector per U.S. Industrial Ventilation Handbook requirements. Hence, under this project there will be reduction in particulate emissions from the existing or replaced devices.

The location of this facility is within an industrial zone; thus it is not expected to cause nuisance odor problems. The District database did not show any odor nuisance or visible emission complaints against this company. The applicant received one notice to comply to maintain records for fuel usage. The company achieved “in-compliance” status upon follow-up inspection. The facility is not located within 1000 feet from any school. Hence, these applications will not require any public notification under Rule 212.

Armstrong World Industries is a RECLAIM and Title V facility. The Title V renewal permit was issued to this facility in October 14, 2010. This is the first permit revision of the renewed Title V permit under this project. The proposed permit revision is considered a “de minimis significant permit revision” to the renewed Title V permit, as described in the Regulation XXX evaluation.

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**PROCESS DESCRIPTION**

Armstrong World Industries, Inc. manufactures and distributes floor tiles for residential and industrial use. In brief, the floor tile manufacturing operation consists of mixing (in banbury mixers) necessary ingredients (limestone, resins, plasticizers, and pigments) into a homogeneous mass. The mixture is heated by the steam. The material is transferred to the roll mill where it is rolled into the shape of a blanket. The tile blanket is chopped into 1/8” cubes. Conveyors take the cubes to Jaeger blenders where cubes are mixed. Cubes then are transferred to a surge hopper on a conveyor. A screw conveyor takes them to a sifter. The sifter separates the cubes into three sizes. Undersized or dust are transferred to mixing area for re-use. The oversized particles are dumped into granulator mill, which reduces the size. The properly sized particles are heated in air heaters and transferred to a roll mill. In the roll mill the heated cubes are rolled into a blanket. Chips are applied to the surface of the blanket for mottled appearance.

The water bath conveyor cools the tile blanket. The blanket is coated with an aqueous wax coating. The air circulating fan dries the wax. The wax coating is then buffed (polished) at a polish station. The punch press punches 12” square tiles. In line #2, the blanket is laminated with a design pattern, which is coated with a protective material prior to cutting tile squares. The company crushes all the scrap material generated in the manufacturing process and reuses it as manufacturing ingredients.

The applicant is proposing to install new equipment to grinding process line to allow recycling of tiles from external sources such as flooring remodeling projects. The following details describe the operation of the new equipment.

Bin Tipper: The new bin tipper will replace the existing tipper (D211). The new tipper will be equipped with a better dust collection hood than the current one and will have a much higher air flow rate to the new dust collector. The new hood is designed to the more stringent ACGIH standards as required in Rule 1155. Therefore, dust emissions are expected to be reduced.

New Conveyors: Two new short conveyors will be added to carry the material from the bin tipper to an existing conveyor (D141). The new conveyors will have dust collection hoods at the transfer points. The new hoods are designed to the more stringent ACGIH standards as required in Rule 1155 and will also be connected to the new dust collector. Therefore, actual emissions will be reduced compared to the existing system. Conveyor D141 will go to lumpbreaker.

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Lumpbreaker: This is an old piece of equipment that will be used to reduce the size of the tile pieces from ~9 -25 square inch to less than one square inch average size. It is an enclosed piece of equipment except for the inlet and outlet. It will be placed over the suction end of a pneumatic carrier that will suck up the tile pieces and dust and carry them up to a cyclone (C143) and baghouse (C150). Any dust created in the lumpbreaker will be separated from the larger pieces in the cyclone. The dust will go to the baghouse and the pieces will drop down and go to an existing cage mill (D148). The cage mill is will grind the chips into a granular size. Essentially no dust emissions will come from the lumpbreaker because the pneumatic conveyor has a large suction airflow that will capture it.

Bin Station: The material from the cage mill will be conveyed through sealed screw conveyors to a pair of existing blenders (D 138 & 139) to smooth out color variations. The blenders are connected to a baghouse (C143). After blending, the material will be unloaded into portable bins or bulk bags. The current bin loading station (D210) has a dust collection hood. Another bin station is needed added to improve the production. Both, stations will have hoods and will be connected to the new dust collector.

Dust Collector: The new dust collector has 99% minimum collection efficiency. It has been sized to meet the more stringent dust collection design criteria required by Rule 1155. The dust hoods are designed to ACGIH standards to increase the dust capture efficiency.

Additionally the applicant is proposing to add a new bag unloading station for Tile line 2. It will handle 8000 tons per year of ground tile chips. The following details describe the operation of the new equipment.

Bulk Bag Unloading Station: This is installed to allow the use of the ground recycled tile product out of storage and feed it into the residential tile line. It will displace an equal amount of virgin material (limestone) now in use. The bulk bags will have a spout on them. The spout will go through an iris valve that will control the flow of material into the transition chute on top of the receiving hopper. The bag spout will be attached to the hopper. The hopper has an air displacement vent and a filter sock. The system is designed to be dust free. The material in the hopper will be screw conveyed to an existing covered weighing station (D116), where other materials such as limestone are also added. The weigh station is a “covered box” and it is connected to a baghouse (C137). The total amount of material going into the weigh station will be unchanged. The applicant is proposing to substitute ground tile for virgin limestone.

<b>OPERATING HOURS</b>
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Average: 24 hr/day, 7 day/week, 52 weeks/year  
Maximum: 24 hr/day, 7 day/week, 52 weeks/year

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**EMISSIONS**

**Application No. 517201 (Grinding Line)**

The particulate emissions are calculated at this facility on material throughput. The grinding line has an existing usage limit of 240 tons/day for material processed through. It is assumed that this much material is processed through all the new equipment to be installed. The District (June 2007) document for particulate emission factors for equipment at aggregate plants indicated 0.00234 lb/ton material per loading/unloading transfer point. All the transfer points are vented to a dust collector with at least 99% control efficiency.

$$PM(R1) = 240 \text{ (Ton/day)} \times 0.00234 \text{ (lb/ton)} = 0.56 \text{ lb/day (0.0234 lb/hr)}$$

$$PM10(R1) = 0.56 \text{ lb/day} \times 0.5 = 0.28 \text{ lb/day (0.0117 lb/hr)}$$

$$PM(R2) = 0.56 \text{ lb/day} \times 0.01 = 0.0056 \text{ lb/day (0.000234 lb/hr)}$$

$$PM10(R2) = 0.056 \text{ lb/day} \times 0.5 = 0.0028 \text{ lb/day (0.000117 lb/hr)}$$

There are three new emission sources (inspection conveyor, transport conveyor and the bin station) to be installed under this project. The combined total emissions for three transfer sources will be as follows:

$$PM10(R1) = 0.28 \times 3 = 0.84 \text{ lb/day (0.035 lb/hr)}$$

$$PM10(R2) = 0.0028 \times 3 = 0.0084 \text{ lb/day (0.00035 lb/hr)}$$

An emission factor of 0.0024 lb/ton material processed (AP-42 emission factor for crushed stone processing operations for PM10) will be used here for the lumpbreaker. This equipment will also be vented to a dust collector with at least 99% control efficiency.

$$PM10(R1) = 240 \text{ (Ton/day)} \times 0.0024 \text{ (lb/ton)} = 0.576 \text{ lb/day (0.024 lb/hr)}$$

$$PM10(R2) = 0.576 \times 0.01 = 0.00576 \text{ lb/day (0.00024 lb/hr)}$$

The total emissions from the project will be as follows:

$$PM10(R1) = 0.035 + 0.024 = 0.059 \text{ lb/hr (1.42 lb/day)}$$

$$PM10(R2) = 0.00035 + 0.00024 = 0.00059 \text{ lb/hr (0.014 lb/day)}$$

**Application No. 517204 (Tile Line No. 2)**

The additional bag unloading station will share the production load under the same material usage limit of the Tile line 2. Thus there will not be any emission increases under this project. Previous application (A/N 408998) emissions will be re-assigned to this application.

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**Application No. 517203 - APC**

The new equipment proposed to be installed under this project will be vented to a state of the art new cartridge dust collector with following details.

Total Filter area:	3250 sq. ft.
Air flow rate:	8500 cfm
Air to filter ratio:	3 to 1
Cleaning system:	Pulse-jet
Access door:	Yes
Pressure Gauge:	Yes

With a sufficient filter area and state of the art pulsating jet cleaning system, the new dust collector will handle particulate emissions from the equipment to be vented.

**RULES/REGULATION EVALUATION**

▣ **RULE 212, PUBLIC NOTIFICATION**

v **SECTION 212(c)(1):**

This section requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. These sources are not located within 1,000 feet from the outer boundary of a school. Therefore, public notice will not be required by this section.

v **SECTION 212(c)(2):**

This section requires a public notice for all new or modified facilities which have on-site emission increases exceeding any of the daily maximums as specified in subdivision (g). As shown in the following table, the emission increases from this facility are below the daily maximum limits specified by Rule 212(g). Therefore, these applications are not subject to this section.

<b>LB/DAY</b>	<b>CO</b>	<b>NOX</b>	<b>PM<sub>10</sub></b>	<b>ROG</b>	<b>Lead</b>	<b>SOX</b>
<b>MAX. LIMIT</b>	220	40	30	30	3	60
<b>INCREASES</b>	0	0	0.014	0	0	0

v **SECTION 212(c)(3):**

This section requires a public notice for all new or modified facilities with on-site toxic air contaminant emission increases, which will exceed individual cancer risk greater than I in a million. There are no carcinogenic emissions from this project. Therefore, these applications are not subject to this section.

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**SECTION 212(g):**

This section requires a public notice for all new or modified sources which undergo construction or modifications resulting an emissions increase exceeding any of the daily maximum specified in the table below. As shown in the following table, the emission increases from this project are below the daily maximum limits specified by Rule 212(g). Therefore, public notice is not required by this section.

<b>LB/DAY</b>	<b>CO</b>	<b>NOX</b>	<b>PM<sub>10</sub></b>	<b>ROG</b>	<b>Lead</b>	<b>SOX</b>
<b>MAX. LIMIT</b>	220	40	30	30	3	60
<b>INCREASES</b>	0	0	0.014	0	0	0

▣ **RULES 401 & 402, VISIBLE EMISSIONS & NUISANCE**

AQMD database has no records of any visible emissions or nuisance complaints against this company. Visible emission or nuisance complaints are not expected with proper operation of the equipment.

▣ **RULES 404 & 405, PARTICULATE MATTER CONCENTRATION AND WEIGHT**

With negligible particulate emissions under this project, as calculated above, this equipment is expected to comply with these requirements.

▣ **RULE 1155, PARTICULATE MATTER (PM) CONTROL DEVICES**

The new hoods and the dust collector are designed to the more stringent ACGIH standards as required in Rule 1155. The dust collector will be equipped with a automated pulse jet shaker to comply with these rule requirements.

**REGULATION XIII**

▣ **RULE 1303(a), BEST AVAILABLE CONTROL TECHNOLOGY (BACT)**

**PM10 EMISSIONS**

The use of baghouse or a cartridge dust collector will provide compliance with the current BACT requirements.

▣ **RULE 1303(b)(1), MODELING**

No screening modeling analysis was required for negligible (<0.41 lb/hr) PM10 emissions under this project.

▣ **RULE 1303 (b)(2), EMISSION OFFSETS**

There will be no increase in potential PM10 emissions for Tile line production modification under this project, since the material to be processed cap will remain the same.

There will be negligible increases in the PM10 emissions (<0.5 lb/day) for the grinding line modification under this proposal. Thus, no emission PM10 offsets are required.

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**□RULE 1401, NEW SOURCE REVIEW OF CARCINOGENIC AIR CONTAMINANTS**

There will not be any toxic emissions associated with this project. Thus this project is expected to comply with these requirements.

**REGULATION XXX**

This facility is in the RECLAIM program. The proposed project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or hazardous air pollutants (HAPs), and a “minor permit revision” for RECLAIM pollutants to the RECLAIM/Title V permit for this facility.

Non-RECLAIM Pollutants or HAPs

Rule 3000(b)(6) defines a “de minimis significant permit revision” as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or HAPs from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

<b><u>Air Contaminant</u></b>	<b>Daily Maximum (lbs/day)</b>
HAP	30
VOC	30
NO <sub>x</sub> *	40
PM <sub>10</sub>	30
SO <sub>x</sub> *	60
CO	220

\* Not applicable if this is a RECLAIM pollutant

To determine if a project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the renewed Title V permit shall be accumulated and compared to the above threshold levels. This proposed project is the 1<sup>st</sup> permit revision of the renewed Title V permit issued to this facility on October 14, 2010. The following table summarizes the cumulative emission increases resulting from all permit revisions since the renewed Title V permit was issued:

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Revision	HAP	VOC	NOx*	PM <sub>10</sub>	SOx	CO
1st Permit Revision. Modification of tile grinding line (A/N 517201), modification of baghouse (A/N 517202), modification of tile mfg. line (A/N 517204), install a new dust collector (A/N 517203) and baghouse (A/N XXXXXX).	0	0	0*	0	0	0
Cumulative Total	0	0	0*	0	0	0
Maximum Daily	30	30	40*	30	60	220

\* RECLAIM pollutant, not subject to emission accumulation requirements

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or HAPs.

#### RECLAIM Pollutants

Rule 3000(b)(12)(A)(v) defines a “minor permit revision” as any Title V permit revision that does not result in an emission increase of RECLAIM pollutants over the facility starting Allocation plus nontradeable Allocations, or higher Allocation amount which has previously undergone a significant permit revision process.

Since NOx is a RECLAIM pollutant for this facility, a separate analysis shall be made to determine if the proposed permit revision is considered a “minor permit revision” for RECLAIM pollutants. There are no NOx emissions associated with this project. As a result, this proposed project is considered as a “minor permit revision” for RECLAIM pollutants.

#### RECOMMENDATION

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or hazardous air pollutants (HAPs), and a “minor permit revision” for RECLAIM pollutants, it is exempt from the public participation requirements under Rule 3006(b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V/RECLAIM permit will be issued to this facility.