



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

July ~~14~~¹³, 2009

Mr. Gerardo C. Rios
Chief, Permits Office
U. S. EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Dear Mr. Rios:

Subject: 3M Company - ID# 800088, A/N's 483638, 483652, 483654, 483656,
483657, 498726 and 498727

The subject facility has proposed to revise their Title V permit as follows:

1. Modification to an existing dried rock crushing and screening system, D97 (Process #1, A/N 483638).
2. Modification to an existing material crushing, screening and load-out system, D140, D143, D144, D147, D151, D152, D371, D357 and D358 (Process #1, A/N 483652).
3. Modification to an existing baghouse, C172 (Process #1, A/N 483654).
4. Modification to an existing baghouse, C106 (Process #1, A/N 483656).
5. Modification to an existing baghouse, C324 (Process #1, A/N 483657).
6. Modification to an existing granule coloring system, line no. 1, D182 (Process #1, A/N 498726).
7. Modification to an existing granule coloring system, line no. 2, D199 (Process #1, A/N 498727).

The proposed permit revision is considered as a "minor permit revision" to the initial Title V permit issued on May 9, 2000. Attached for your review are the permit evaluation and the proposed permit.

If you have any questions or need additional information regarding the proposed permit revision, please call Manuel Quizon at (909) 396-2639.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian L. Yeh", written in a cursive style.

Brian L. Yeh
Senior Manager
Chemical/Mechanical Operations

BLY:mvq
Attachments

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
System 3 : RAW MATERIAL CRUSHING AND DRYING					S20.1
FEEDER, VIBRATING, AGGREGATE A/N: 322537	D32			PM: (9) [RULE 405,2-7-1986]	A103.1, D323.1
FEEDER, VIBRATING, AGGREGATE A/N: 322537	D33			PM: (9) [RULE 405,2-7-1986]	A103.1, D323.1
CONVEYOR, BELT, NO. 3, AGGREGATE A/N: 322537	D34			PM: (9) [RULE 405,2-7-1986]	A103.1, D323.1
DRYER, ROTARY, NO. 1, NATURAL GAS, WITH LOW NOX BURNER, 35 MMBTU/HR WITH A/N: 322537 BURNER, NATURAL GAS, NORTH AMERICAN MANUFACTURING CO., MODEL 4213-22-LEX, WITH LOW NOX BURNER, 35 MMBTU/HR	D36	C39	NOX: LARGE SOURCE**	CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 38 PPMV NATURAL GAS (1) [RULE 2012,5-6-2005] ; PM: (9) [RULE 405,2-7-1986] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	C1.2, C1.3, D323.1
BUCKET ELEVATOR, NO. 11 A/N: 322537	D37	C39		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 11A A/N: 322537	D347	C39		PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, NO. 1, AGGREGATE, HEIGHT: 31 FT; DIAMETER: 22 FT 8 IN A/N: 322537	D38	C40		PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
CYCLONE, HEIGHT: 15 FT; DIAMETER: 5 FT A/N: 323941	C39	D36 D37 C40 D347 D353 D354			E102.1
BAGHOUSE, NO. 7, ICA, MODEL SIXE 625-6, NOMEX BAGS, 3750 SQ.FT.; 240 BAGS A/N: 323941	C40	D38 C39		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E102.1, E193.1, K67.2
System 4 : DRIED ROCK CRUSHING AND SCREENING					
BUCKET ELEVATOR, NO. 1 A/N: 326718	D42	C68		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 1, AGGREGATE A/N: 326718	D43	C329		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 2, AGGREGATE A/N: 326718	D44	C329		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 1 A/N: 326718	D45	D58 C68		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 2 A/N: 326718	D46	D51		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 3 A/N: 326718	D47	C329		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 4 A/N: 326718	D48	C329		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 5 A/N: 326718	D49	C329		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 6 A/N: 326718	D50	C329		PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
BIN, SURGE, NO. 7, CRUSHER FEED A/N: 326718	D51	D46 D52 C68 D69		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 8, CRUSHER FEED A/N: 326718	D52	D51		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 9 A/N: 326718	D54	D53		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 10 A/N: 326718	D55	D53		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 11 A/N: 326718	D56	D53		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 12 A/N: 326718	D57	D53		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 13, CRUSHER FEED A/N: 326718	D58	D45 D87 D330		PM: (9) [RULE 405,2-7-1986]	D323.1
FEEDER, BELT A/N: 326718	D330	D58 D59		PM: (9) [RULE 405,2-7-1986]	D323.1
CRUSHER, NO. 4, ROLL A/N: 326718	D59	D330		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, NO. 14, CRUSHER FEED A/N: 326718	D53	D54 D55 D56 D57 D66 D85 C329		PM: (9) [RULE 405,2-7-1986]	D323.1
FEEDER, BELT, AGGREGATE A/N: 326718	D66	D53 D67		PM: (9) [RULE 405,2-7-1986]	D323.1
CRUSHER, NO. 5, ROLL A/N: 326718	D67	D66		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 2 A/N: 326718	D61	C329		PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
CONVEYOR, DISTRIBUTOR NO. 1 A/N: 326718	D331	D62 D63 D64 D65 C329		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 3, AGGREGATE A/N: 326718	D62	D331		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 4, AGGREGATE A/N: 326718	D63	D331		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 5, AGGREGATE A/N: 326718	D64	D331		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 6, AGGREGATE A/N: 326718	D65	D331		PM: (9) [RULE 405,2-7-1986]	D323.1
BAGHOUSE, NO. 8, ICA, MODEL 625- 5, 3125 SQ.FT. A/N: 327471	C68	D42 D45 D51 D336 D356		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E201.1, K67.2
BAGHOUSE, NO. 9, ICA, MODEL 625- 7, 4375 SQ.FT. A/N: 327472	C329	D43 D44 D47 D48 D49 D50 D53 D61 D331 D336 D352		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E193.1, E201.1, K67.2
CONVEYOR, BELT, NO. 30, AGGREGATE A/N:	D69	D51 D70		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 30 A/N:	D70	D69 C105		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, DISTRIBUTOR NO. 30 A/N:	D332	C105		PM: (9) [RULE 405,2-7-1986]	D323.1

- | | |
|--|---|
| <ul style="list-style-type: none"> * (1)(1A)(1B) Denotes RECLAIM emission factor (3) Denotes RECLAIM concentration limit (5)(5A)(5B) Denotes command and control emission limit (7) Denotes NSR applicability limit (9) See App B for Emission Limits | <ul style="list-style-type: none"> (2)(2A)(2B) Denotes RECLAIM emission rate (4) Denotes BACT emission limit (6) Denotes air toxic control rule limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.) (10) See Section J for NESHAP/MACT requirements |
|--|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
SCREEN, CLASSIFYING, CLASSIFYING, NO. 36, AGGREGATE A/N:	D71	C105		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 37, AGGREGATE A/N:	D72	C105		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 30, AGGREGATE A/N:	D73	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 31, AGGREGATE A/N:	D74	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 32, AGGREGATE A/N:	D75	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 31, AGGREGATE A/N:	D77	D78 C105		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 31 A/N:	D78	D77 C105 D334		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, DISTRIBUTOR NO. 31 A/N:	D334	D78 C105		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 38, AGGREGATE A/N:	D79	C105		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 39, AGGREGATE A/N:	D80	C105		PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
SCREEN, CLASSIFYING, CLASSIFYING, NO. 33, AGGREGATE A/N:	D81	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 34, AGGREGATE A/N:	D82	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 35, AGGREGATE A/N:	D83	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, SCREW, NO. 9, BAGHOUSE RECLAIM A/N:	D352	C329		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, AIR SLIDE, NO. 30, AGGREGATE A/N:	D102	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 33, AGGREGATE A/N:	D85	D53 C105 C106		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 34, AGGREGATE A/N:	D86	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 36, AGGREGATE A/N:	D87	D58		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, NO. 30, AGGREGATE A/N:	D88	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, NO. 31, AGGREGATE A/N:	D89	C106		PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
BIN, NO. 32, AGGREGATE A/N:	D90	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, NO. 33, AGGREGATE A/N:	D91	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, NO. 34, AGGREGATE A/N:	D92	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, NO. 35, AGGREGATE A/N:	D93	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, NO. 36, AGGREGATE A/N:	D94	D96 D333		PM: (9) [RULE 405,2-7-1986]	D323.1
FEEDER, AGGREGATE, BELT A/N:	D333	D76 D94		PM: (9) [RULE 405,2-7-1986]	D323.1
CRUSHER, NO. 6 A/N:	D76	D333		PM: (9) [RULE 405,2-7-1986]	C1.5, D323.1
BIN, NO. 37, AGGREGATE A/N:	D95	D97 D335		PM: (9) [RULE 405,2-7-1986]	D323.1
FEEDER, AGGREGATE, BELT A/N:	D335	D84 D95		PM: (9) [RULE 405,2-7-1986]	D323.1
CRUSHER, NO. 7 A/N:	D84	D335		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, SCREW, NO. 8, BAGHOUSE RECLAIM A/N: 367236	D356	C68		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, DUST STORAGE A/N: 367236	D353	C39		PM: (9) [RULE 405,2-7-1986]	D323.1

- | | |
|---|---|
| <p>* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits</p> | <p>(2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements</p> |
|---|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 ; COLORED ROOFING GRANULE PRODUCTION					
CONVEYOR, SCREW, NO. 7, DUST TRANSPORT A/N: 367236	D354	C39		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 32 A/N:	D336	C68 C329 D337		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 32 A/N:	D337	C105 D336		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, NO. 38, AGGREGATE A/N:	D96	D94 C106		PM: (9) [RULE 405,2-7-1986]	D323.1
MILL, PUG, AGGREGATE, WET WASTE A/N:	D100	C106		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 40 A/N:	D376			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, PNEUMATIC, NO. 100 TRANSPORT, BAGHOUSE NO. 12 RECLAIM A/N:	D338			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, PNEUMATIC, NO. 200 TRANSPORT, BAGHOUSE NO. 13 RECLAIM A/N:	D339			PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, NO. 39, AGGREGATE A/N:	D97	D95 C106 D358		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, SCREW, NO. 39A, DUST TRANSPORT A/N: 367236	D357	C106 D358		PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
CONVEYOR, SCREW, NO. 39B, DUST TRANSPORT A/N: 367236	D358	D97 D357		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, SCREW, NO. 40A A/N:	D374			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, SCREW, NO. 40B A/N:	D375			PM: (9) [RULE 405,2-7-1986]	D323.1
BAGHOUSE, NO. 11, ICA, MODEL 625-8, 5000 SQ.FT. A/N: 327475	C105	D70 D71 D72 D77 D78 D79 D80 D85 D332 D334 D337		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E193.1, E201.1, K67.2
BAGHOUSE, NO. 10, SENECA ENVIRONMENTAL, MODEL 414-THS-10, TWO COMPARTMENT, 9754 SQ.FT. A/N:	C106	D73 D74 D75 D81 D82 D83 D85 D86 D88 D89 D90 D91 D92 D93 D96 D97 D100 D102 D159 D357		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E193.1, E201.1, K67.2
System 5 : MATERIAL CRUSHING, SCREENING AND LOAD-OUT					
CONVEYOR, BELT, NO. 16, H-GRADE A/N: 367236	D107	C369		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 15 A/N: 367236	D108	C369		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 11, 4 ROTEX A/N: 367236	D113	C369		PM: (9) [RULE 405,2-7-1986]	D323.1

- | | |
|---|---|
| <p>* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits</p> | <p>(2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements</p> |
|---|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process J : COLORED ROOFING GRANULE PRODUCTION					
CONVEYOR, BELT, NO. 51 A/N: 367236	D370	C369		PM: (9) [RULE 405,2-7-1986]	A63.1, D323.1
BUCKET ELEVATOR, NO. 52 A/N: 367236	D140	D371		PM: (9) [RULE 405,2-7-1986]	B59.1, D323.1
CONVEYOR, BELT, NO. 52 A/N: 367236	D371	D140 D143 D144		PM: (9) [RULE 405,2-7-1986]	B59.1, D323.1
STORAGE SILO, HEAD LAP, HEIGHT: 64 FT; DIAMETER: 21 FT A/N: 367236	D143	D371		PM: (9) [RULE 405,2-7-1986]	B59.1, D323.1
STORAGE SILO, HEAD LAP, HEIGHT: 64 FT; DIAMETER: 21 FT A/N: 367236	D144	D371		PM: (9) [RULE 405,2-7-1986]	B59.1, D323.1
CONVEYOR, BELT, FEEDER A/N:	D372	D147		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, FEEDER A/N:	D373	D147		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 53 A/N:	D147	D372 D373		PM: (9) [RULE 405,2-7-1986]	B59.1, D323.1
BULK MATERIAL LOAD/UNLOAD STATION, TRUCK/RAILCAR LOADING STATION A/N:	D151			PM: (9) [RULE 405,2-7-1986]	B59.1, C1.4, D323.1
BULK MATERIAL LOAD/UNLOAD STATION, TRUCK/RAILCAR LOADING STATION A/N:	D152			PM: (9) [RULE 405,2-7-1986]	B59.1, C1.4, D323.1

- | | |
|--|---|
| <ul style="list-style-type: none"> * (1)(1A)(1B) Denotes RECLAIM emission factor (3) Denotes RECLAIM concentration limit (5)(5A)(5B) Denotes command and control emission limit (7) Denotes NSR applicability limit (9) See App B for Emission Limits | <ul style="list-style-type: none"> (2)(2A)(2B) Denotes RECLAIM emission rate (4) Denotes BACT emission limit (6) Denotes air toxic control rule limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.) (10) See Section J for NESHAP/MACT requirements |
|--|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
BAGHOUSE, NO. 6, SENECA ENVIRONMENTAL PRODUCTS, MODEL 63-FMTHSCART-78, 31.6 HP, 3085 SQ.FT.; 63 BAGS A/N: 367235	C369	D107 D108 D113 D370		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E201.1, K67.2
System 6 : DRIED RAW GRANULE CONVEYING AND STORAGE					S20.1
CONVEYOR, BELT, NO. 5, RAW GRANULE A/N: 01641R	D159	C106 C165		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 14 A/N: 01641R	D160	C165		PM: (9) [RULE 405,2-7-1986]	D323.1
BULK MATERIAL LOAD/UNLOAD STATION, RAW GRANULE, TRUCK LOADING STATION A/N: 01641R	D161			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, NO. 2, RAW GRANULE, HEIGHT: 60 FT 8 IN; DIAMETER: 20 FT 6 IN A/N: 01641R	D162	C165		PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, NO. 3, RAW GRANULE, HEIGHT: 60 FT 8 IN; DIAMETER: 20 FT 6 IN A/N: 01641R	D163	C165		PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, RAW GRANULE, 80 TONS A/N: 01641R	D164			PM: (9) [RULE 405,2-7-1986]	D323.1
BAGHOUSE, NO. 12, ICA, MODEL 625-3, 1875 SQ.FT. A/N: 00815E	C165	D159 D160 D162 D163 D166 D167		PM: (9) [RULE 404,2-7-1986]	D322.1, D381.1, E201.1, K67.2

- | | |
|--|--|
| <ul style="list-style-type: none"> * (1)(1A)(1B) Denotes RECLAIM emission factor (3) Denotes RECLAIM concentration limit (5)(5A)(5B) Denotes command and control emission limit (7) Denotes NSR applicability limit (9) See App B for Emission Limits | <ul style="list-style-type: none"> (2)(2A)(2B) Denotes RECLAIM emission rate (4) Denotes BACT emission limit (6) Denotes air toxic control rule limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.) (10) See Section J for NESHAP/MACT requirements |
|--|--|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
System 7 : GRANULE COLORING FEED END SYSTEM					S20.1
CONVEYOR, BELT, NO. 17, GRANULE A/N:	D166	C165		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 16 A/N:	D167	C165		PM: (9) [RULE 405,2-7-1986]	D323.1
DRYER, ROTARY, NO. 2, NATURAL GAS, PREHEATER, 20.185 MMBTU/HR A/N:	D168	C172	NOX: LARGE SOURCE**	CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 88 PPMV NATURAL GAS (3) [RULE 2012,5-6-2005] ; PM: (9) [RULE 405,2-7-1986] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	D12.4, D323.1
CONVEYOR, BELT, NO. 6, GRANULE A/N:	D169	C172 C324		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 3 A/N:	D170	C324		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 3A A/N:	D171	C324		PM: (9) [RULE 405,2-7-1986]	D323.1
BAGHOUSE, NO. 13, ICA, MODEL 625-6, 3750 SQ.FT. A/N:	C172	D168 D169 D351		PM: (9) [RULE 404,2-7-1986]	D322.1, D381.1, E193.1, E201.1, K67.2
CONVEYOR, AIR SLIDE, NO. 9, BAGHOUSE RECLAIM, EMERGENCY A/N:	D350			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
BULK MATERIAL LOAD/UNLOAD STATION, BAGHOUSE RECLAIM, EMERGENCY TRUCK LOADOUT A/N:	D351	C172		PM: (9) [RULE 405,2-7-1986]	D323.1
System 8 : GRANULE COLORING LINE NO.1					S20.1
BIN, SURGE, A, 75 TONS A/N:	D173	C324		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 10, GRANULE, REVERSIBLE A/N:	D188			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 14, GRANULE, REVERSIBLE A/N:	D202			PM: (9) [RULE 405,2-7-1986]	D323.1
FEEDER, GRANULE, WEIGH A/N:	D177	C324		PM: (9) [RULE 405,2-7-1986]	D323.1
FEEDER, ADDITIVE A/N:	D361			PM: (9) [RULE 405,2-7-1986]	D323.1
MIXER, PIGMENT SLURRY, POT A/N:	D174	C189		PM: (9) [RULE 405,2-7-1986]	D323.1
MIXER, SLURRY, HOLDING POT A/N:	D175			PM: (9) [RULE 405,2-7-1986]	D323.1
MIXER, GRANULE, ROTARY WITH A/N:	D178	C189		CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012,5-6-2005] ; PM: (9) [RULE 405,2-7-1986]	D323.1

- | | |
|---|---|
| <p>* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits</p> | <p>(2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements</p> |
|---|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 ; COLORED ROOFING GRANULE PRODUCTION					
HEATER, NATURAL GAS, NORTH AMERICAN, WITH EXHAUST TEMPERATURE CONTROL, 1 MMBTU/HR	D179		NOX: PROCESS UNIT**	PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	
BUCKET ELEVATOR, NO. 4 A/N:	D180	D181		PM: (9) [RULE 405,2-7-1986]	D323.1
KILN, NO. 1, NATURAL GAS, WITH LOW NOX BURNER, 54 MMBTU/HR WITH A/N: BURNER, NATURAL GAS, WITH LOW NOX BURNER, 54 MMBTU/HR	D181	D180 C190	NOX: MAJOR SOURCE - SUPER COMPLIANT **	CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 32 PPMV NATURAL GAS (3) [RULE 2012,5-6-2005] ; PM: (9) [RULE 405,2-7-1986] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	D12.3, D28.1, D323.1
COOLER, GRANULE, WITH WATER, OIL, ADHESION PROMOTER(S) AND/OR DUST SUPPRESSANT(S) INJECTION A/N:	D182	C191		PM: (9) [RULE 405,2-7-1986]	A63.1, D323.1
BUCKET ELEVATOR, NO. 6 A/N:	D183	C325		PM: (9) [RULE 405,2-7-1986]	D323.1

- | | |
|--|---|
| <ul style="list-style-type: none"> * (1)(1A)(1B) Denotes RECLAIM emission factor (3) Denotes RECLAIM concentration limit (5)(5A)(5B) Denotes command and control emission limit (7) Denotes NSR applicability limit (9) See App B for Emission Limits | <ul style="list-style-type: none"> (2)(2A)(2B) Denotes RECLAIM emission rate (4) Denotes BACT emission limit (6) Denotes air toxic control rule limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.) (10) See Section J for NESHAP/MACT requirements |
|--|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
SCREEN, CLASSIFYING, CLASSIFYING, NO. 20, GRANULE A/N:	D184			PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, SCREEN WASTE A/N:	D185	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, SCREEN BLEND, NO. 2 LINE, 15 TONS A/N:	D317	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 9, GRANULE A/N:	D186	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 13, GRANULE A/N:	D187	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 11 A/N:	D363	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
BAGHOUSE, NO. 16, FABRIC FILTER, MODEL SQD-144-10-ARRG 111 A/N: 119897	C189	D174 D178		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E193.1, E201.1, K67.2
CONVEYOR, PNEUMATIC, BAGHOUSE NO. 16 RECLAIM A/N: 119897	D364			PM: (9) [RULE 405,2-7-1986]	D323.1
BAGHOUSE, NO. 17, SENECA ENVIRONMENTAL, MODEL 558- THSBV-10 A/N: 131909	C190	D181		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E193.1, E201.1, K67.2
CONVEYOR, PNEUMATIC, BAGHOUSE NO. 17 RECLAIM A/N: 131909	D365			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
SCRUBBER, DUCON, FAN-SEPARATOR TYPE A/N: 119901	C191	D182		PM: (9) [RULE 404,2-7-1986]	C8.1, D12.2, D381.1, E193.2, K67.3
System 9 : GRANULE COLORING LINE NO.2					
BIN, SURGE, B, 75 TONS A/N:	D192	C324		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 10, GRANULE, REVERSIBLE A/N:	D188			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 14, GRANULE, REVERSIBLE A/N:	D202			PM: (9) [RULE 405,2-7-1986]	D323.1
FEEDER, GRANULE, WEIGH A/N:	D194	C324		PM: (9) [RULE 405,2-7-1986]	D323.1
FEEDER, ADDITIVE A/N:	D362			PM: (9) [RULE 405,2-7-1986]	D323.1
MIXER, PIGMENT SLURRY, POT A/N:	D193	C203		PM: (9) [RULE 405,2-7-1986]	D323.1
MIXER, SLURRY, HOLDING POT A/N:	D176			PM: (9) [RULE 405,2-7-1986]	D323.1
MIXER, GRANULE, ROTARY WITH A/N:	D195	C203		CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 130 LBS/MMSCF NATURAL GAS (1) [RULE 2012,5-6-2005] ; PM: (9) [RULE 405,2-7-1986] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
HEATER, NATURAL GAS, NORTH AMERICAN, 1 MMBTU/HR	D196		NOX: PROCESS UNIT**		
BUCKET ELEVATOR, NO. 5 A/N:	D197	D198		PM: (9) [RULE 405,2-7-1986]	D323.1
KILN, NO. 2, NATURAL GAS, WITH LOW NOX BURNER, 54 MMBTU/HR WITH A/N: BURNER, NATURAL GAS, WITH LOW NOX BURNER, 54 MMBTU/HR	D198	D197 C204	NOX: MAJOR SOURCE - SUPER COMPLIANT **	CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; NOX: 32 PPMV NATURAL GAS (3) [RULE 2012,5-6-2005] ; PM: (9) [RULE 405,2-7-1986] PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981]	D12.3, D28.1, D323.1
COOLER, GRANULE, WITH WATER, OIL, ADHESION PROMOTER(S) AND/OR DUST SUPPRESSANT(S) INJECTION A/N:	D199	C205		PM: (9) [RULE 405,2-7-1986]	A63.1, D323.1
BUCKET ELEVATOR, NO. 7 A/N:	D200	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 21, GRANULE, TRIPLE DECK A/N:	D201			PM: (9) [RULE 405,2-7-1986]	D323.1

- | | |
|---|---|
| <p>* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits</p> | <p>(2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements</p> |
|---|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
BIN, SURGE, SCREEN WASTE, NO. 2 LINE, 15 TONS A/N:	D316	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, SCREEN BLEND, NO. 2 LINE, 15 TONS A/N:	D317	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 9, GRANULE A/N:	D186	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 13, GRANULE A/N:	D187	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 11 A/N:	D363	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
BAGHOUSE, NO. 15, FABRIC FILTER, MODEL SQD-144-10-ARRG 111 A/N: 119898	C203	D193 D195		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E193.1, E201.1, K67.2
CONVEYOR, PNEUMATIC, BAGHOUSE NO. 15 RECLAIM A/N: 119898	D366			PM: (9) [RULE 405,2-7-1986]	D323.1
BAGHOUSE, NO. 18, SENECA ENVIRONMENTAL, MODEL 558-THSBV-10 A/N: 131910	C204	D198		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, E193.1, E201.1, K67.2
CONVEYOR, PNEUMATIC, BAGHOUSE NO. 18 RECLAIM A/N: 131910	D367			PM: (9) [RULE 405,2-7-1986]	D323.1
SCRUBBER, DUCON, FAN-SEPARATOR TYPE A/N: 119902	C205	D199		PM: (9) [RULE 404,2-7-1986]	C8.1, D12.2, E193.2, K67.3

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
System 10 : FINISHED GRANULE STORAGE					
STORAGE SILO, A-1, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D206			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-2, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D207			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-3, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D208			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-4, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D209			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-5, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D210			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-6, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D211			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-7, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D212			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-8, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D213			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-9, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D214			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits

- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, A-10, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D215			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-11, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D216			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-12, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D217			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-13, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D218			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, A-14, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D219	C324		PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-1, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D220			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-2, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D221			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-3, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D222			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-4, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D223			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, B-5, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D224			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-6, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D225			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-7, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D226			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-8, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D227			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-9, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D228			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-10, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D229			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-11, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D230			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-12, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D231			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, B-13, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D232			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements
- ** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, B-14, GRANULE, HEIGHT: 36 FT; DIAMETER: 8 FT A/N: 01633R	D233	C324		PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-1, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D234			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-2, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D235			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-3, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D236			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-4, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D237			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-5, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D238			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-6, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D239			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-7, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D240			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-8, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D241			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, C-9, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D242			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-10, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D243			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-11, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D244			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-12, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D245			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-13, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D246			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-14, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D247			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-15, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D248			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-16, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D249			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-17, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D250			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits

- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, C-18, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D251			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-19, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D252			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-20, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D253			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-21, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D254			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, C-22, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D255			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-1, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D256			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-2, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D257			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-3, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D258			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-4, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D259			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, D-5, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D260			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-6, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D261			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-7, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D262			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-8, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D263			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-9, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D264			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-10, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D265			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-11, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D266			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-12, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D267			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-13, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D268			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements
- ** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, D-14, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D269			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-15, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D270			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-16, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D271			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-17, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D272			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-18, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D273			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-19, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D274			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-20, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D275			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-21, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D276			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, D-22, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D277			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, E-1, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D278			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-2, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D279			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-3, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D280			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-4, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D281			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-5, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D282			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-6, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D283			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-7, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D284			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-8, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D285			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-9, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D286			PM: (9) [RULE 405,2-7-1986]	D323.1

- | | |
|--|--|
| <ul style="list-style-type: none"> * (1)(1A)(1B) Denotes RECLAIM emission factor (3) Denotes RECLAIM concentration limit (5)(5A)(5B) Denotes command and control emission limit (7) Denotes NSR applicability limit (9) See App B for Emission Limits | <ul style="list-style-type: none"> (2)(2A)(2B) Denotes RECLAIM emission rate (4) Denotes BACT emission limit (6) Denotes air toxic control rule limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.) (10) See Section J for NESHAP/MACT requirements |
|--|--|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, E-10, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D287			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-11, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D288			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-12, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D289			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-13, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D290			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-14, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D291			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-15, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D292			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-16, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D293			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-17, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D294			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-18, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D295			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
STORAGE SILO, E-19, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D296			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-20, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D297			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-21, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D298			PM: (9) [RULE 405,2-7-1986]	D323.1
STORAGE SILO, E-22, GRANULE, HEIGHT: 40 FT; DIAMETER: 8 FT 4 IN A/N: 02513R	D299			PM: (9) [RULE 405,2-7-1986]	D323.1
System 11 : FINISHED GRANULE BAGGING AND BULK LOADOUT					
CONVEYOR, BELT, NO. 10, GRANULE, REVERSIBLE A/N:	D188			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 14, GRANULE, REVERSIBLE A/N:	D202			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 12, GRANULE A/N: 326721	D300			PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 9 A/N: 326721	D301	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 21 A/N: 326721	D302	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
SCREEN, CLASSIFYING, CLASSIFYING, NO. 8 A/N: 326721	D303			PM: (9) [RULE 405,2-7-1986]	D323.1

- | | |
|---|---|
| <p>* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits</p> | <p>(2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements</p> |
|---|---|

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
BIN, SURGE, WITH SACKING SCALE, 53 TONS A/N: 326721	D304			PM: (9) [RULE 405,2-7-1986]	D323.1
PACKAGING MACHINE, GRANULE A/N: 326721	D305	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, SCREEN WASTE, 5 TONS A/N: 326721	D306			PM: (9) [RULE 405,2-7-1986]	D323.1
BULK MATERIAL LOAD/UNLOAD STATION, GRANULE, TRUCK AND RAILCAR LOADING STATION A/N: 326721	D307			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 20, GRANULE A/N: 326721	D308			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, NO. 21, GRANULE A/N: 326721	D309			PM: (9) [RULE 405,2-7-1986]	D323.1
BUCKET ELEVATOR, NO. 8 A/N: 326721	D310	C325		PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, WITH SACKING SCALE, 15 TONS A/N: 326721	D312			PM: (9) [RULE 405,2-7-1986]	D323.1
BIN, SURGE, SCREEN WASTE, 5 TONS A/N: 326721	D314			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 19, GRANULE A/N: 326721	D318			PM: (9) [RULE 405,2-7-1986]	D323.1
BULK MATERIAL LOAD/UNLOAD STATION, GRANULE, TRUCK AND RAILCAR LOADING STATION A/N: 326721	D319			PM: (9) [RULE 405,2-7-1986]	D323.1

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
CONVEYOR, BELT, NO. 22 A/N: 326721	D348			PM: (9) [RULE 405,2-7-1986]	D323.1
CONVEYOR, BELT, NO. 25, SCALE A/N: 326721	D349			PM: (9) [RULE 405,2-7-1986]	D323.1
System 12 : AIR POLLUTION CONTROL					
BAGHOUSE, NO. 14, FABRIC FILTER, MODEL SQW-360-10-ARRG 11 A/N:	C324	D169 D170 D171 D173 D177 D192 D194 D219 D233		PM: (9) [RULE 404,2-7-1986]	D12.1, D322.1, D381.1, K67.2
CYCLONE, MULTICLONE A/N: 00239R	C325	D183 D185 D186 D187 D200 D301 D302 D305 D310 D316 D317 D363		PM: (9) [RULE 404,2-7-1986]	D381.1, E201.1
Process 2 : R-219 EXEMPT EQUIPMENT SUBJECT TO SOURCE-SPECIFIC RULES					
RULE 219 EXEMPT EQUIPMENT, CLEANING EQUIPMENT, SMALL, UNHEATED, NON-CONVEYORIZED	E342			VOC: (9) [RULE 1171,11-7- 2003;RULE 1171,5-6-2005]	H23.1
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E343			ROG: (9) [RULE 1113,11-8- 1996;RULE 1113,6-9-2006;RULE 1171,11-7-2003;RULE 1171,5-6- 2005]	K67.1
RULE 219 EXEMPT EQUIPMENT, AIR CONDITIONING UNITS	E344				H23.2

- * (1)(1A)(1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5)(5A)(5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2)(2A)(2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3 ; FUEL STORAGE AND DISPENSING					
STORAGE TANK, GASOLINE, ABOVE GROUND, CONTAINMENT SOLUTIONS HOOVERVAULT (G-70-194), WITH SUBMERGED FILLING, PHASE I VAPOR RECOVERY SYSTEM, 500 GALS; WIDTH: 4 FT 7 IN; HEIGHT: 3 FT 9 IN; LENGTH: 6 FT 8 IN A/N: 423119	D378				C1.6, D330.1, H23.3, J109.1, J373.1
FUEL DISPENSING NOZZLE, BALANCE RETRACTOR PHASE II CONTROL, GASOLINE, (G-70-52-AM), WITH PHASE II VAPOR RECOVERY SYSTEM A/N: 423119	D379				C1.6, D330.1, H23.3, J110.1, J373.2

* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

SYSTEM CONDITIONS

S20.1 For the purposes of determining compliance with District Rule 405, solid particulate matter emissions shall be based on the combined emissions from all points of this system.

[RULE 405, 2-7-1986]

[Systems subject to this condition : Process 1, System 1 , 2 , 3 , 5 , 6 , 7 , 8 , 11]

DEVICE CONDITIONS

A. Emission Limits

A63.1 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT	Header 3	Header 4
VOC	Less than or equal to	3120	LBS IN ANY ONE MONTH

For the purposes of this condition, the limit(s) shall be based on the total combined emissions from the use of oil, adhesion promoter(s) and/or dust suppressant(s) from Cooler no. 1 (D182), Cooler no. 2 (D199) and Belt Conveyor no. 51 (D370).

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D182, D199, D370]

A103.1 The operator shall keep materials in process sufficiently moist to prevent fugitive dust emissions.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition : D32, D33, D34]

B. Material/Fuel Type Limits

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

B59.1 The operator shall only use the following material(s) in this device :

Materials that contain dust suppressant (slate oil or any substitute) to prevent fugitive dust emissions.

[Devices subject to this condition : D140, D143, D144, D147, D151, D152, D371]

C. Throughput or Operating Parameter Limits

C1.2 The operator shall limit the material processed to no more than 172800 ton(s) in any one month.

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D36]

C1.3 The operator shall limit the natural gas fuel usage to no more than 1.75e+07 cubic feet per month.

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D36]

C1.4 The operator shall limit the unloading rate to no more than 43200 ton(s) in any one month.

For the purpose of this condition, unloading rate shall be defined as material offloaded to trucks or rail cars.

This limit shall be based on the total combined limit for equipment D151 and D152.

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D151, D152]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

- C1.5 The operator shall limit the material processed to no more than 324000 ton(s) in any one month.

For the purpose of this condition, material processed shall be defined as total material processed through crusher device D76.

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D76]

- C1.6 The operator shall limit the gasoline dispensed to no more than 5000 gallon(s) in any one calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D378, D379]

- C8.1 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 45 gpm.

To comply with this condition, the operator shall install and maintain a(n) flow meter to accurately indicate the flow rate in the water supply line to the scrubber.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition : C191, C205]

D. Monitoring/Testing Requirements

- D12.1 The operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the bags.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition : C40, C68, C105, C106, C189, C190, C203, C204, C324, C329, C369]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

- D12.2 The operator shall install and maintain a(n) pressure gauge to accurately indicate the pressure in the water supply line to the scrubber.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition : C191, C205]

- D12.3 The operator shall install and maintain a(n) non-resettable totalizing fuel meter to accurately indicate the fuel usage of the kiln.

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D181, D198]

- D12.4 The operator shall install and maintain a(n) non-resettable totalizing fuel meter to accurately indicate the fuel usage of the dryer.

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D168]

- D28.1 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine the NOX emissions at the outlet.

The test shall be conducted to demonstrate compliance with all the requirements to maintain Super Compliant status under Rule 2012.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D181, D198]

- D322.1 The operator shall perform annual inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C40, C68, C105, C106, C165, C172, C189, C190, C203, C204, C324, C329, C369]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D323.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D32, D33, D34, D36, D37, D38, D42, D43, D44, D45, D46, D47, D48, D49, D50, D51, D52, D53, D54, D55, D56, D57, D58, D59, D61, D62, D63, D64, D65, D66, D67, D69, D70, D71, D72, D73, D74, D75, D76, D77, D78, D79, D80, D81, D82, D83, D84, D85, D86, D87, D88, D89, D90, D91, D92, D93, D94, D95, D96, D97, D100, D102, D107, D108, D113, D140, D143, D144, D147, D151, D152, D159, D160, D161, D162, D163, D164, D166, D167, D168, D169, D170, D171, D173, D174, D175, D176, D177, D178, D180, D181, D182, D183, D184, D185, D186, D187, D188, D192, D193, D194, D195, D197, D198, D199, D200, D201, D202, D206, D207, D208, D209, D210, D211, D212, D213, D214, D215, D216, D217, D218, D219, D220, D221, D222, D223, D224, D225, D226, D227, D228, D229, D230, D231, D232, D233, D234, D235, D236, D237, D238, D239, D240, D241, D242, D243, D244, D245, D246, D247, D248, D249, D250, D251, D252, D253, D254, D255, D256, D257, D258, D259, D260, D261, D262, D263, D264, D265, D266, D267, D268, D269, D270, D271, D272, D273, D274, D275, D276, D277, D278, D279, D280, D281, D282, D283, D284, D285, D286, D287, D288, D289, D290, D291, D292, D293, D294, D295, D296, D297, D298, D299, D300, D301, D302, D303, D304, D305, D306, D307, D308, D309, D310, D312, D314, D316, D317, D318, D319, D330, D331, D332, D333, D334, D335, D336, D337, D338,

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D339, D347, D348, D349, D350, D351, D352, D353, D354, D356, D357, D358, D361, D362, D363, D364, D365, D366, D367, D370, D371, D372, D373, D374, D375, D376]

D330.1 The operator shall have a person that has been trained in accordance with Rule 461 conduct a semi-annual inspection of the gasoline transfer and dispensing equipment. The first inspection shall be in accordance with Rule 461, Attachment B, the second inspection shall be in accordance with Rule 461, Attachment C, and the subsequent inspections shall alternate protocols. The operator shall keep records of the inspection and the repairs in accordance to Rule 461 and Section K of this Permit.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D378, D379]

D381.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a quarterly basis, at least, unless the equipment did not operate during the entire quarterly period. The routine quarterly inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions; and
- 3). Date and time visible emission was abated.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C40, C68, C105, C106, C165, C172, C189, C190, C191, C203, C204, C324, C325, C329, C369]

E. Equipment Operation/Construction Requirements

**FACILITY PERMIT TO OPERATE
3M COMPANY**

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E102.1 The operator shall discharge dust collected in this equipment only into closed containers.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition : C39, C40]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E193.1 The operator shall operate and maintain this equipment according to the following requirements:

The baghouse pressure differential across the filter bags shall be maintained between 1" and 6" of water column whenever the equipment it serves is in operation.

The operator shall operate and maintain a pressure differential gauge to measure and indicate the pressure differential across the baghouse filter bags pursuant to the operation and maintenance requirements in 40 CFR Part 64.7. The pressure differential across the filter bags shall be recorded at least once a day.

For the purpose of this condition, a deviation shall be defined as when the pressure differential across the filter bags is less than 1" of water column or more than 6" of water column occurs during the normal operation of the equipment it serves.

Whenever a deviation occurs, the operator shall inspect this equipment to identify the cause of such a deviation, take immediate corrective action to maintain the pressure differential across the filter bags between 1" and 6" of water column, and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective actions taken.

The operator shall be reported to the AQMD on a semi-annual reporting period specified in Condition No. 23, Section K of this permit. The semi-annual monitoring report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period specified in Condition No. 23 in Section K of this permit.

The operator shall submit an application with an Quality Improvement Plan (QIP) in accordance with 40 CFR Part 64.8 to the AQMD if more than six deviations occur in any semi-annual reporting period specified in Condition No. 23 in Section K of this permit. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report.

The operator shall inspect and maintain all components of this equipment on an annual basis in accordance with the manufacturer's specifications.

The operator shall keep adequate records in a format that is acceptable to the AQMD to demonstrate compliance with all applicable requirements specified in this condition and 40 CFR Part 64.9 for a minimum of five years

[40CFR Part 64, 10-22-1997]

[Devices subject to this condition : C40, C105, C106, C172, C189, C190, C203, C204, C329]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E193.2 The operator shall operate and maintain this equipment according to the following requirements:

The water flow rate to the scrubber shall be maintained at a minimum 45 gallons per minute whenever the equipment it serves is in operation.

The operator shall operate and maintain a water flow rate monitor to measure and indicate the water flow rate to the scrubber pursuant to the operation and maintenance requirements in 40 CFR Part 64.7. The water flow rate to the scrubber shall be recorded at least once a day.

For the purpose of this condition, a deviation shall be defined as when the water flow rate to the scrubber is less than 45 gallons per minute during the normal operation of the equipment it serves.

Whenever a deviation occurs, the operator shall inspect this equipment to identify the cause of such a deviation, take immediate corrective action to maintain the water flow rate to the scrubber at a minimum 45 gallons per minute, and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective actions taken.

The operator shall be reported to the AQMD on a semi-annual reporting period specified in Condition No. 23, Section K of this permit. The semi-annual monitoring report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period specified in Condition No. 23 in Section K of this permit.

The operator shall submit an application with an Quality Improvement Plan (QIP) in accordance with 40 CFR Part 64.8 to the AQMD if more than six deviations occur in any semi-annual reporting period specified in Condition No. 23 in Section K of this permit. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report.

The operator shall inspect and maintain all components of this equipment on a quarterly basis in accordance with the manufacturer's specifications or good engineering practice.

The operator shall keep adequate records in a format that is acceptable to the AQMD to demonstrate compliance with all applicable requirements specified in this condition and 40 CFR Part 64.9 for a minimum of five years

[40CFR Part 64, 10-22-1997]

[Devices subject to this condition : C191, C205]

**FACILITY PERMIT TO OPERATE
 3M COMPANY**

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E201.1 The operator shall remove the materials collected in this equipment to enclosed containers or back to process.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C68, C105, C106, C165, C172, C189, C190, C203, C204, C325, C329, C369]

H. Applicable Rules

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1122

[RULE 1122, 10-1-2004]

[Devices subject to this condition : E342]

H23.2 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Refrigerants	District Rule	1415

[RULE 1415, 10-14-1994]

[Devices subject to this condition : E344]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

H23.3 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	461

[RULE 461, 6-3-2005]

[Devices subject to this condition : D378, D379]

J. Rule 461

J109.1 The operator shall use, except for diesel transfer, the phase I vapor recovery system in full operation whenever this equipment is in use. This system shall be installed, operated and maintained to meet all CARB certification requirements.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 461, 6-3-2005]

[Devices subject to this condition : D378]

J110.1 The operator shall use, except for diesel transfer, the phase II vapor recovery system in full operation whenever gasoline from this equipment is dispensed to motor vehicles as defined in Rule 461. This system shall be installed, operated and maintained to meet all CARB certification requirements.

[RULE 461, 6-3-2005]

[Devices subject to this condition : D379]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

J373.1 The operator shall comply with the following gasoline transfer and dispensing requirements:

a). At least once every five calendar years, a static pressure leak decay test shall be conducted to demonstrate that the storage tanks, the remote and/or nozzle vapor recovery check valves, associated vapor return piping and fittings are free from vapor leaks. The test shall be conducted in accordance with CARB Test Procedure Method TP-201.3. Results shall be submitted to the AQMD, Engineering and Compliance, within thirty (30) days of the test.

The AQMD shall be notified by e-mail at R461testing@aqmd.gov or by facsimile at telephone number (909) 396-3606 at least twenty-four hours prior to testing. Such notification shall include the name of the owner or operator; the name of the contractors; the location of the facility; and the scheduled start and completion dates of the static pressure leak decay test.

[RULE 461, 6-3-2005]

[Devices subject to this condition : D378]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

J373.2 The operator shall comply with the following gasoline transfer and dispensing requirements:

- a). The Phase II vapor recovery systems shall be installed, operated, and maintained such that the maximum allowable pressure through the system including nozzle, vapor hose, swivels, and underground piping does not exceed the dynamic back pressures described by the California Air Resources Board (CARB) Executive Order by which the system was certified:

Nitrogen Flowrates (CFH)	Dynamic Back Pressure (Inches of Water)
60	0.35
80	0.62

At least once every five calendar years from the issuance date of this permit, dynamic back pressure tests shall be conducted to determine the Phase II system vapor recovery back pressures. The tests shall be conducted in accordance with CARB Test Procedure Method TP-201.4. Results shall be submitted to the AQMD, Engineering and Compliance, within thirty (30) days of tests.

The AQMD shall be notified by e-mail at R461testing@aqmd.gov or by facsimile at telephone number (909) 396-3606 at least twenty-four hours prior to testing. Such notification shall include the name of the owner or operator; the name of the contractors; the location of the facility; and the scheduled start and completion dates of the dynamic back pressure test.

The test shall be conducted as frequently as that required by the most recent amendment to Rule 461 or CARB Executive Order requirements, whichever is more stringent.

- b). If the CARB Executive Order requires the installation of a liquid removal device, a liquid removal rate test shall be conducted to demonstrate the removal of gasoline from the vapor passage of the coaxial hose. The test shall be conducted within thirty days of initial installation and in accordance with CARB test procedure Method TP-201.6. Results shall be submitted to the AQMD, Engineering and Compliance, within thirty (30) days of the test.

The AQMD shall be notified by e-mail at r461testing@aqmd.gov or by facsimile at telephone number (909) 396-3606 at least twenty-four hours prior to testing. Such notification shall include the name of the owner or operator; the name of the contractors; the location of the facility; and the scheduled start and completion dates of the liquid removal rate test.

[RULE 461, 6-3-2005]

[Devices subject to this condition : D379]

K. Record Keeping/Reporting

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

K67.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

For architectural applications where no thinners, reducers, or other VOC containing materials are added, maintain semi-annual records for all coating consisting of (a) coating type, (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings, (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.

For architectural applications where thinners, reducers, or other VOC containing materials are added, maintain daily records for each coating consisting of (a) coating type, (b) VOC content as applied in grams per liter (g/l) of materials used for low-solids coatings, (c) VOC content as applied in g/l of coating, less water and exempt solvent, for other coatings.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : E343]

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

the name of the person performing the inspection and/or maintenance of the filter media

the date, time and results of the inspection

the date, time and description of any maintenance or repairs resulting from the inspection

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C40, C68, C105, C106, C165, C172, C189, C190, C203, C204, C324, C329, C369]

K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

daily flow rate to the scrubber

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C191, C205]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
System 8 : GRANULE COLORING LINE NO.1					S20.1
HOPPER, SURGE, NO. 1, 4 CU.FT. CAPACITY A/N: 486546 Permit to Construct Issued: 12/17/08	D380			PM: (9) [RULE 405,2-7-1986]	D323.1
HOPPER, RECEIVING, 30 CU.FT. CAPACITY WITH A/N: 486546 Permit to Construct Issued: 12/17/08 FILTER, PULSE JET CLEANING, 14 BAGS, 148 SQ.FT. TOTAL FILTER AREA	D381			PM: (9) [RULE 405,2-7-1986]	D323.1
KILN, NO. 1, NATURAL GAS, WITH LOW NOX BURNER, 42 MMBTU/HR WITH A/N: 486546 Permit to Construct Issued: 12/17/08 BURNER, NATURAL GAS, MAXON, MODEL 16" OPTIMA SLS, WITH LOW NOX BURNER, 42 MMBTU/HR	D181	C190	NOX: MAJOR SOURCE - SUPER COMPLIANT **	CO: 155 LBS/MMSCF NATURAL GAS (5A) [RULE 1303(b)(2)-Offset,5-10-1996;RULE 1303(b)(2)-Offset,12-6-2002] ; CO: 2000 PPMV (5) [RULE 407,4-2-1982] NOX: 32 PPMV NATURAL GAS (3) [RULE 2012,4-11-1997] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; PM: (9) [RULE 405,2-7-1986]	D12.3, D28.1, D29.1, D323.1, K40.1

* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements
 ** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : COLORED ROOFING GRANULE PRODUCTION					
System 9 : GRANULE COLORING LINE NO.2					
HOPPER, SURGE, NO. 2, 4 CU.FT. CAPACITY A/N: 486547 Permit to Construct Issued: 12/17/08	D383			PM: (9) [RULE 405,2-7-1986]	D323.1
HOPPER, RECEIVING, 30 CU.FT. CAPACITY WITH A/N: 486547 Permit to Construct Issued: 12/17/08 FILTER, PULSE JET CLEANING, 14 BAGS, 148 SQ.FT. TOTAL FILTER AREA	D384			PM: (9) [RULE 405,2-7-1986]	D323.1
KILN, NO. 2, NATURAL GAS, WITH LOW NOX BURNER, 42 MMBTU/HR WITH A/N: 486547 Permit to Construct Issued: 12/17/08 BURNER, NATURAL GAS, MAXON, MODEL 16" OPTIMA SLS, WITH LOW NOX BURNER, 42 MMBTU/HR	D198	C204	NOX: MAJOR SOURCE - SUPER COMPLIANT **	CO: 155 LBS/MMSCF NATURAL GAS (5A) [RULE 1303(b)(2)-Offset,5-10-1996;RULE 1303(b)(2)-Offset,12-6-2002] ; CO: 2000 PPMV (5) [RULE 407,4-2-1982] NOX: 32 PPMV NATURAL GAS (3) [RULE 2012,4-11-1997] ; PM: 0.1 GRAINS/SCF (5) [RULE 409,8-7-1981] ; PM: (9) [RULE 405,2-7-1986]	D12.3, D28.1, D29.1, D323.1, K40.1

* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

SYSTEM CONDITIONS

S20.1 For the purposes of determining compliance with District Rule 405, solid particulate matter emissions shall be based on the combined emissions from all points of this system.

[RULE 405, 2-7-1986]

[Systems subject to this condition : Process 1, System 1 , 2 , 3 , 5 , 6 , 7 , 8 , 11]

DEVICE CONDITIONS

D. Monitoring/Testing Requirements

D12.3 The operator shall install and maintain a(n) non-resettable totalizing fuel meter to accurately indicate the fuel usage of the kiln.

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D181, D198]

D28.1 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine the NOX emissions at the outlet.

The test shall be conducted to demonstrate compliance with all the requirements to maintain Super Compliant status under Rule 2012.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D181, D198]

**FACILITY PERMIT TO OPERATE
 3M COMPANY**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D29.1 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	Approved District method	District-approved averaging time	Outlet
CO emissions	Approved District method	District-approved averaging time	Outlet

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 2012, 5-6-2005]

[Devices subject to this condition : D181, D198]

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D323.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D181, D198, D380, D381, D383, D384]

K. Record Keeping/Reporting

FACILITY PERMIT TO OPERATE 3M COMPANY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

K40.1 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 3 percent oxygen (dry basis), mass rate (lbs/hr), and lbs/MM Cubic Feet. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 3 percent oxygen.

Source test results shall also include the operating conditions of the basic equipment under which the test was conducted.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 2012, 5-6-2005]

[Devices subject to this condition : D181, D198]

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
13	1
APPL. NO.	DATE
see pg 1	5/24/09
PROCESSED BY	CHECKED BY
M QUIZON	

PERMIT TO CONSTRUCT/OPERATE

3M COMPANY
18750 MINNESOTA ROAD
CORONA, CA 92882

EQUIPMENT DESCRIPTION

APPLICATION NO. 483633

TITLE V/RECLAIM FACILITY PERMIT REVISION APPLICATION.

APPLICATION NO. 483638

MODIFICATION TO AN EXISTING DRIED ROCK CRUSHING AND SCREENING SYSTEM OPERATING UNDER PERMIT TO OPERATE F65037 (A/N 367237) BY CONNECTING BIN NO. 39 (D97) TO A BAGHOUSE (C106).

APPLICATION NO. 483652

TRUCK LOADING SYSTEM CONSISTING OF:

- 1) DEVICE NO. D372, FEEDER, BELT
- 2) DEVICE NO. D373, FEEDER, BELT
- 3) DEVICE NO. D147, BUCKET ELEVATOR NO. 53
- 4) DEVICE NO. D151, BULK MATERIAL, TRUCK/RAILCAR LOADING STATION
- 5) DEVICE NO. D152, BULK MATERIAL, TRUCK/RAILCAR LOADING STATION

APPLICATION NO. 483653

MODIFICATION TO AN EXISTING GRANULE COLORING SYSTEM, LINE NO. 1 OPERATING UNDER PERMIT TO OPERATE F20788 (A/N 351432) BY CONNECTING BELT CONVEYOR NO. 6 (D169) TO A BAGHOUSE (C172).

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	13	PAGE	2
APPL. NO.	see pg 1	DATE	5/24/09
PROCESSED BY	M QUIZON	CHECKED BY	

APPLICATION NO. 483654

MODIFICATION TO AN EXISTING BAGHOUSE (C172) OPERATING UNDER PERMIT TO OPERATE F20775 (A/N 327478) BY CONNECTING BELT CONVEYOR NO. 6 (D169) AND DISCONNECTING AIR SLIDE CONVEYOR NO. 9 (D350).

APPLICATION NO. 483656

MODIFICATION TO AN EXISTING BAGHOUSE (C106) OPERATING UNDER PERMIT TO OPERATE F7763 (A/N 327476) BY CONNECTING BIN NO. 39 (D97) AND SCREW CONVEYOR NO. 39A (D357) AND DISCONNECTING SCREW CONVEYOR NO. 39B (D358).

APPLICATION NO. 483657

MODIFICATION TO AN EXISTING BAGHOUSE (C324) OPERATING UNDER PERMIT TO OPERATE M53271 (A/N 119101) BY DISCONNECTING THE BULK MATERIAL LOAD/UNLOAD STATION (D368).

APPLICATION NO. 498726

CHANGE OF CONDITION TO AN EXISTING GRANULE COLORING SYSTEM, LINE NO. 1 OPERATING UNDER PERMIT TO OPERATE F20788 (A/N 351432) BY SUBSTITUTING PART OF THE SLATE OIL USAGE IN THE COOLER #1 (D182) WITH A NEW MATERIAL (DREW).

APPLICATION NO. 498727

CHANGE OF CONDITION TO AN EXISTING GRANULE COLORING SYSTEM, LINE NO. 2 OPERATING UNDER PERMIT TO OPERATE F20787 (A/N 351433) BY SUBSTITUTING PART OF THE SLATE OIL USAGE IN THE COOLER #2 (D199) WITH A NEW MATERIAL (DREW).

APPLICATION NO. 498725

TITLE V/RECLAIM FACILITY PERMIT REVISION APPLICATION.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT*ENGINEERING DIVISION***APPLICATION PROCESSING AND CALCULATIONS**

PAGES	PAGE
13	3
APPL. NO.	DATE
see pg 1	5/24/09
PROCESSED BY	CHECKED BY
M QUIZON	

HISTORY

Application No. 483633 was filed on 6/6/09 for a TITLE V/RECLAIM facility permit revision. Before this application can be processed another application (A/N 498725) was filed on 5/14/09 for a TITLE V/RECLAIM facility permit revision. Application no. 483633 will be cancelled and A/N 498725 will be used for the TITLE V/RECLAIM facility permit revision.

Application No. 483638 was filed on 6/6/08 for modification of an existing dried rock crushing and screening system operating under Permit to Operate F65037 (A/N 367237) by venting bin no. 39 (D97) to an existing baghouse no. 10 (C106) and change the company's flow chart to show the transfer of baghouse fines from baghouse no. 14 (C324) to bin no. 39 (D97) by an enclosed chute. This application was filed after the company found out that the facility permit does not match with the process flow diagrams submitted with the Title V permit.

Application No. 483652 was filed on 6/6/08 for modification of an existing material crushing, screening and load-out system operating under Permit to Operate F65001 (A/N 367236) by disconnecting bucket elevator no. 52 (D140) and two storage silos (D143, D144) from baghouse no. 20 (C157), disconnecting bucket elevator no. 53 (D147) and two bulk material load/unload stations (D151, D152) from baghouse no. 19 (C158), connecting elevator no. 52 (D140) to belt conveyor no. 52 (D371), connecting screw conveyor no. 39A (D357) to baghouse no. 10 (C106) and disconnecting screw conveyor no. 39B (D358) from baghouse no. 10 (C106). Baghouse nos. 19 (C158) and 20 (C157) were taken out of service since all the materials vented to these baghouses are oiled (oil added to the materials due to process change and not for PM10 emission control) and all belt conveyors were covered, therefore minimal PM10 emissions are expected. This application was filed after the company found out that the facility permit does not match with the process flow diagrams submitted with the Title V permit. Upon District review of the flow diagrams and the permit unit boundary, it was discovered that the crushing, screening and storage system permit unit (A/N 367236) should have ended at the storage silos D143 and D144 (see attached flow chart) and all the equipment downstream of the silos (silos to the truck loading stations) should have been a different permit unit. Since there is an open application (A/N 483652) for modification of the crushing, screening and load-out system, it was decided to split the permit unit and use the open application for the new permit unit (truck loading system) and keep the previous A/N 367236 (P/O F65001) active for the crushing, screening and storage system permit unit.

Application No. 483654 was filed on 6/6/08 for modification of an existing baghouse (C172) operating under Permit to Operate F20775 (A/N 327478) by venting belt

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT*ENGINEERING DIVISION***APPLICATION PROCESSING AND CALCULATIONS**

PAGES	PAGE
13	4
APPL. NO.	DATE
see pg 1	5/24/09
PROCESSED BY	CHECKED BY
M QUIZON	

conveyor no. 6 (D169) and disconnecting air slide conveyor no. 9 (D350). This application was filed after the company found out that the facility permit does not match with the process flow diagrams submitted with the Title V permit.

Application No. 483656 was filed on 6/6/08 for modification of an existing baghouse (C106) operating under Permit to Operate F7763 (A/N 327476) by venting bin no. 39 (D97) and screw conveyor no. 39A (D357) and disconnecting screw conveyor no. 39B (D358). This application was filed after the company found out that the facility permit does not match with the process flow diagrams submitted with the Title V permit.

Application No. 483657 was filed on 6/6/08 for modification of an existing baghouse (C324) operating under Permit to Operate M53271 (A/N 119101) by disconnecting the material load/unload station (D368). The material load/unload station (D368) was part of the baghouse no. 14 (C324) permit unit and it was taken out of service. This application was filed after the company found out that the facility permit does not match with the process flow diagrams submitted with the Title V permit.

There are three open applications (A/N's 483653, 486546 and 498726) to modify and change condition on the existing granule coloring system, line no. 1 operating under permit to operate F20788 (A/N 351432). Application No. 483653 was filed on 6/6/08 for modification of the granule coloring system, line no. 1 by venting belt conveyor no. 6 (D169) to an existing baghouse (C172). This application was filed after the company found out that the facility permit does not match with the process flow diagrams submitted with the Title V permit. Application No. 486546 was filed on 8/5/08 for modification of the granule coloring system, line no. 1 by replacing the existing burner (54 MMBTU/hr) on kiln no. 1 (D181) by a new burner (42 MMBTU/hr) and adding a surge hopper (D380) and a receiving hopper (D381) with a filter vent. Permit to construct was granted for A/N 486546 on 12/17/08. Application No. 498726 was filed on 5/14/09 for change of condition on the granule coloring system, line no. 1 by substituting part of the slate oil usage in the cooler no. 1 (D182) with a new material (DREW). Application nos. 483653 and 486546 will be cancelled and all the changes will be incorporated under A/N 498726.

There are two open applications (A/N's 486547 and 498727) to modify the existing granule coloring system, line no. 2 operating under permit to operate F20787 (A/N 351433). Application No. 486547 was filed on 8/5/08 for modification of the granule coloring system, line no. 2 by replacing the existing burner (54 MMBTU/hr) on kiln no. 2 (D198) by a new burner (42 MMBTU/hr) and adding a surge hopper (D383) and a receiving hopper (D384) with a filter vent. Permit to construct was granted for A/N 486547 on 12/17/08. Application No. 498727 was filed on 5/14/09 for change of

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT*ENGINEERING DIVISION***APPLICATION PROCESSING AND CALCULATIONS**

PAGES	PAGE
13	5
APPL. NO.	DATE
see pg 1	5/24/09
PROCESSED BY	CHECKED BY
M QUIZON	

condition on the granule coloring system, line no. 2 by substituting part of the slate oil usage in the cooler no. 2 (D199) with a new material (DREW). Application no. 486547 will be cancelled and all the changes will be incorporated under A/N 498727.

Application No. 498725 was filed on 5/14/09 for a TITLE V/RECLAIM facility permit revision.

PROCESS DESCRIPTION

The facility mines, crushes, screens and colors mineral rocks in the production of roofing granules.

CALCULATION**APPLICATION NO. 483638**

The modification to the dried rock crushing and screening system resulted in net emission decrease for PM10. As shown on the calculation below, the PM10 emission decrease is insignificant therefore previous NSR entry for PM10 will be used.

- 1) Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr
- 2) Total process weight rate = 14 tons/hr, 336 tons/day, 10,080 tons/month

Assumption:

Baghouse control efficiency = 99%

Emission Factors:

- 1) Aggregate transfer point (from AP-42, Table 11.19.2-2, Crushed Stone Processing Operations)
Aggregate PM10 = 0.000046 lb/ton

$$\begin{aligned} \text{PM10 Emission decrease} &= 14 \text{ tons/hr} \times 0.000046 \text{ lb/ton} \times (1 - 0.99) \\ &= 0.0000064 \text{ lb/hr} \times 24 \text{ hrs/day} = 0.00015 \text{ lb/day} \end{aligned}$$

APPLICATION NO. 483652

The modification to the material crushing, screening and load-out system resulted in a minimal emission change for PM10 but resulted in an emission increase for VOC due to

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT*ENGINEERING DIVISION***APPLICATION PROCESSING AND CALCULATIONS**

PAGES	PAGE
13	6
APPL. NO.	DATE
see pg 1	5/24/09
PROCESSED BY	CHECKED BY
M QUIZON	

the use of slate oil or any substitute in conveyor no. 51 (D370). Approximately 9 years ago, the materials being processed on the load out system was changed from dry fines to headlap (fines with oil) due to customers demand. The addition of oil to the materials was for the change in process and not for emission control, so the baghouses (C157 and C158) were taken out. The new materials which contain oil cannot be vented to the baghouse because it will blind the baghouse. Condition B59.1 which requires the materials being processed to contain oil to prevent fugitive dust emissions was added to the facility permit.

A field evaluation was performed by me on 6/26/09 to observe the operation specifically from the application of slate oil on belt conveyor no. 51 (D370) to the truck loading stations (D151 and D152). I arrived at the facility at 6:05 AM and met with Roberta Reed (3M EH & S Manager) and she gave me a drawing that shows the equipment and material flow of the headlap storage and loading system to easily understand the process. Then we met with Brett Cochrane (3M Plant Superintendent) to show me the equipment and explain the process before loading a truck. The slate oil is applied by continuous drip (metered in four places across the conveyor) across conveyor no. 51 (D370) about halfway the length of the conveyor. Conveyor no. 51 (D370) is covered and both sides of the conveyor were vented to a baghouse. The material is then transferred by an enclosed chute to elevator no. 52 (D140) which is fully enclosed. Then from elevator no. 52 (D140), the materials can be directly transferred to North Silo (D144) by an enclosed chute or to South Silo (D143) by a covered conveyor no. 52 (D371) and an enclosed chute. From the silos (D143 and D144), the materials are loaded in the truck by any of the feeders (D372 or D373) through an enclosed elevator no. 53 (D147) and enclosed telescoping chute. The truck has two compartments and was loaded one compartment at a time. The loading time was 6 mins/compartment and 12 tons/compartment. No visible emission was observed in this process. The only potential emission point observed was the transfer point from the telescoping chute to the truck load-out.

Headlap has been produced in the facility for a long time and the production of headlap in the material crushing, screening and load-out system did not increase the total VOC emissions of the facility. Like the coolers (D182 and D199), the use of oil to produce headlap was never been addressed in any permit unit, so the VOC emissions from the headlap will be bubbled in with the VOC emissions from cooler nos. 1 and 2 (D182 and D199). A facility permit condition A63.1 was added to limit the total VOC emissions from the usage of slate oil, wacker and DREW (changed the wordings to oil, adhesions promoters and/or dust suppressant in the facility permit as requested by the company for confidentiality) in coolers nos. 1 and 2 (D182 and D199) and in conveyor no. 51 (D370) to 3,120 lbs/month (104 lbs/day x 30 days). The screw conveyors (D357 and D358) are

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
13	7
APPL. NO.	DATE
see pg 1	5/24/09
PROCESSED BY	CHECKED BY
M QUIZON	

fully enclosed and are connected to each other. For NSR purposes, the VOC emissions for this process were charged to A/N's 498726 and 498727 (coolers permit units).

With the split in the permit boundary for A/N 367236 and A/N 483652, PM10 emissions will be calculated and will be adjusted as necessary.

PM10 Emissions from the Truck Loading System (A/N 483652)

- 1) Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr
- 2) Total process weight rate = 60 tons/hr, 1,440 tons/day, 43,200 tons/month

PM10 emissions will be calculated based on only one transfer point, from the telescoping chute to the truck load-out:

Emission Factors:

- 1) Aggregate transfer point (from AP-42, Table 11.19.2-2, Crushed Stone Processing Operations)

Aggregate PM10 = 0.000046 lb/ton

Uncontrolled PM10 Emissions = 60 tons/hr x 0.000046 lb/ton = 0.00276 lb/hr
= 0.00276 lb/hr x 24 hrs/day = 0.066 lb/day

Previous NSR Entry for A/N 367236

Uncontrolled PM10 emissions = 3.69 lbs/hr (88.56 lbs/day)

Controlled PM10 emissions = 0.04 lb/hr (0.72 lb/day)

Adjusted Uncontrolled PM10 emissions

Uncontrolled PM10 emissions = 3.69 lbs/hr - 0.00276 lb/hr = 3.68724 lb/hr

As shown on the above calculation, the uncontrolled PM10 emission of 0.00276 lb/hr is minimal and will not make any difference in the previous NSR entry, therefore previous NSR will not be adjusted.

APPLICATION NOS. 498726 and 498727

The company is requesting to substitute part of the slate oil and wacker (silicone) usage in coolers no. 1 (D182) and no. 2 (D199) with a new material, DREW (a milky white liquid

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	13	PAGE	8
APPL. NO.	see pg 1	DATE	5/24/09
PROCESSED BY	M QUIZON	CHECKED BY	

with soapy, acrylate odor). At present the company injects slate oil and wacker inside the coolers to coat the colored roofing granules. The slate oil and wacker coatings are used to make the colored roofing granules durable, protects them from the weather and promote adhesions to the asphalt roofing material. The new granule treatment (DREW, 3M new innovation) will provide enhanced performance that includes durable dust suppression, improved stain resistance, reduced color difference and improved reflectance for energy efficiency.

The slate oil and wacker contains VOC's but the VOC emissions from these materials were never calculated for NSR purposes and no conditions were on the permit for VOC emissions or slate oil and wacker usage. The company claims that the roofing granules had been produced from this facility since 1948 and would have used slate oil or some other oil since then. District records show the use of oil in the coloring line was first mentioned on a source test report dated 4/30/81. The company cannot find any purchase order for the oil before 4/30/81, so for REG XIII purposes the maximum facility VOC emissions will be based on what the Rules allowed in 1981, as directed by Senior Engineering Manager Brian Yeh.

Maximum VOC emissions will be calculated by using the maximum allowable raw materials that the company can processed through the dryer #1 (D36). The flow chart, Figure A-4 shows that all the raw materials (rocks) goes through the dryer #1 (D36) before all the crushings and screenings occur to produce the roofing granules. Dryer #1 (D36) has an existing facility permit condition no. C1.2 that limits the material processed to no more than 172,800 tons in any one month and the company has records to show what percent of the raw materials (tons/ton) are required to produce the roofing granules and the usage of the slate oil and wacker per tons of roofing granules produced. The 1980 version of REG XIII allowed maximum facility VOC emissions of 150 lbs/day. At present the company's NSR balance shows facility VOC emissions of 46 lbs/day (all from combustions), therefore the allowable VOC emissions limit from the slate oil and wacker is 104 lbs/day. As shown on the calculations below, the company will exceed the 104 lbs/day VOC emissions limit if they process the maximum allowable raw materials but are below the 104 lbs/day VOC emissions limit based on their actual maximum one month production in the last five years. A facility permit condition A63.1 was added to limit the total VOC emissions from the usage of slate oil, wacker and DREW (changed the wordings to oil, adhesions promoters and/or dust suppressant in the facility permit as requested by the company for confidentiality) in coolers nos. 1 and 2 (D182 and D199) and in conveyor no. 51 (D370) to 3,120 lbs/month (104 lbs/day x 30 days). Facility permit condition no. C1.2 that limits the material processed to no more than 172,800 tons in any one month will not be changed because the company can later on finds lower VOC containing materials that can replace or substitute the slate oil, wacker and DREW.

Given:

- 1) Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/year
- 2) Dryer #1 processed weight (raw materials) limit = 172,800 tons in any one month
- 3) Average Yield (raw materials to roofing granules) = 59.92%
- 4) Maximum 5 years Dryer #1 processed weight (raw materials) = 119,000 tons/month
- 5) Slate oil VOC content = 0.72% by weight
- 6) Wacker VOC content = 12% by weight
- 7) DREW VOC content = 0.70% by weight
- 8) DREW Toluene content = <0.20% by weight

Previous Formulation (using slate oil and wacker):

- 1) Average slate oil usage = 4.41 lbs/ton of roofing granules
- 2) Average wacker usage = 0.09 lb/ton of roofing granules

New Formulation (using slate oil, wacker and DREW):

- 1) Average slate oil usage = 1.797 lbs/ton of roofing granules
- 2) Average wacker usage = 0.015 lb/ton of roofing granules
- 3) Average DREW usage = 2.688 lbs/ton of roofing granules

VOC EMISSIONS BASED ON PROCESS WEIGHT LIMIT OF 172,800 TONS/MONTH (USING SLATE OIL AND WACKER)

$$\begin{aligned} \text{Maximum roofing granules production} &= 172,800 \text{ tons/mo.} \times 0.5992 \\ &= 103,541.76 \text{ tons/mo.} \end{aligned}$$

$$\begin{aligned} \text{Maximum slate oil usage} &= 103,541.76 \text{ tons/mo.} \times 4.41 \text{ lbs/ton} \\ &= 456,616.16 \text{ lbs/mo.} \end{aligned}$$

$$\begin{aligned} \text{Maximum wacker usage} &= 103,541.76 \text{ tons/mo.} \times 0.09 \text{ lb/ton} \\ &= 9,318.76 \text{ lbs/mo.} \end{aligned}$$

$$\begin{aligned} \text{Maximum VOC emissions from slate oil} &= 456,616.16 \text{ lbs/mo.} \times 0.0072 \\ &= 3,287.64 \text{ lbs/mo} \\ &= 109.59 \text{ lbs/day (30 day average)} \end{aligned}$$

$$\begin{aligned} \text{Maximum VOC emissions from wacker} &= 9,318.76 \text{ lbs/mo.} \times 0.12 \\ &= 1,118.25 \text{ lbs/mo} \\ &= 37.27 \text{ lbs/day (30 day average)} \end{aligned}$$

$$\begin{aligned} \text{Total VOC emissions (slate oil and wacker)} &= 3,287.64 \text{ lbs/mo} + 1,118.25 \text{ lbs/mo} \\ &= 4,405.89 \text{ lbs/mo.} \end{aligned}$$

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING DIVISION****APPLICATION PROCESSING AND CALCULATIONS**

PAGES

13

PAGE

10

APPL. NO.

see pg 1

DATE

5/24/09

PROCESSED BY

M QUIZON

CHECKED BY

= 146.86 lbs/day (30 day average)

VOC EMISSIONS BASED ON PROCESS WEIGHT LIMIT OF 172,800 TONS/MONTH (USING SLATE OIL, WACKER AND DREW)

Maximum roofing granules production = 172,800 tons/mo. x 0.5992
= 103,541.76 tons/mo.

Maximum slate oil usage = 103,541.76 tons/mo. x 1.797 lbs/ton
= 186,064.54 lbs/mo.

Maximum wacker usage = 103,541.76 tons/mo. x 0.015 lb/ton
= 1,553.13 lbs/mo.

Maximum DREW usage = 103,541.76 tons/mo. x 2.688 lbs/ton
= 278,320.25 lbs/mo.

Maximum VOC emissions from slate oil = 186,064.54 lbs/mo. x 0.0072
= 1,339.66 lbs/mo
= 44.66 lbs/day (30 day average)

Maximum VOC emissions from wacker = 1,553.13 lbs/mo. x 0.12
= 186.38 lbs/mo
= 6.21 lbs/day (30 day average)

Maximum VOC emissions from DREW = 278,320.25 lbs/mo. x 0.007
= 1,948.24 lbs/mo
= 64.94 lbs/day (30 day average)

Total VOC emissions (slate oil and wacker) = 1,339.66 lbs/mo + 186.38 lbs/mo +
1,948.24 lbs/mo
= 3,474.28 lbs/mo.
= 115.81 lbs/day (30 day average)

VOC EMISSIONS DECREASE WITH THE NEW FORMULATION BASED ON PROCESS WEIGHT LIMIT OF 172,800 TONS/MONTH

VOC Emissions Decrease with the New Formulation = 146.86 lbs/day - 115.81 lbs/day
= 31.05 lbs/day (30 day average)

VOC EMISSIONS BASED ON FIVE YEAR ACTUAL MAXIMUM PROCESS WEIGHT OF 119,000 TONS/MONTH (USING SLATE OIL AND WACKER)

Maximum roofing granules production = 119,000 tons/mo. x 0.5992
= 71,304.8 tons/mo.

Maximum slate oil usage = 71,304.8 tons/mo. x 4.41 lbs/ton
= 314,454.17 lbs/mo.

Maximum wacker usage = 71,304.8 tons/mo. x 0.09 lb/ton

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
13	11
APPL. NO.	DATE
see pg 1	5/24/09
PROCESSED BY	CHECKED BY
M QUIZON	

= 6,417.43 lbs/mo.

Maximum VOC emissions from slate oil = 314,454.17 lbs/mo. x 0.0072

= 2,264.07 lbs/mo

= 75.47 lbs/day (30 day average)

Maximum VOC emissions from wacker = 6,417.43 lbs/mo. x 0.12

= 770.09 lbs/mo

= 25.67 lbs/day (30 day average)

Total VOC emissions (slate oil and wacker) = 2,264.07 lbs/mo + 770.09 lbs/mo

= 3,034.16 lbs/mo.

= 101.14 lbs/day (30 day average)

TOLUENE EMISSIONS:

Maximum DREW usage = 3,000,000 lbs/yr

Maximum Toluene emissions = 3,000,000 lbs/yr x 0.002 = 6,000 lbs/yr

Maximum individual Cancer Risk (MICR) Calculations:

MICR is calculated according to Risk Assessment Procedures for Rules 1401 and 212, Version 6.0, August 18, 2000. This latest version provides four tiers for preparing a risk assessment, from a quick "lookup" table for screening emission levels to a detailed risk assessment involving air quality modeling analysis. Tier I is applicable because the toluene emissions of 6,000 lbs/yr is below the screening emission levels of 9,920 lbs/yr at 25 meters, 26,000 lbs/yr at 50 meters and 77,500 lbs/yr at 100 meters on Table 1A. The nearest residential or offsite worker receptor is more than 100 meters.

RULE EVALUATION

RULE 212 (c)(1): This section requires a public notice for all new or modified permit units that emit air contaminants located within 1,000 feet from the outer boundary of a school.

No public notice is required since the nearest school from this facility is approximately 4,752 feet.

(c)(2): This section requires a public notice for all new or modified facilities that have on-site emission increases exceeding any of the daily maximums as specified by Rule 212(g).

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	13	PAGE	12
APPL. NO.	see pg 1	DATE	5/24/09
PROCESSED BY	M QUIZON	CHECKED BY	

The proposed project will not result in any emission increase for the entire facility. A Rule 212(c) (2) notice will not be triggered since there is no emission increase from this facility.

(c)(3): This section requires a public notice for all new or modified permit unit with increases in emissions of toxic air contaminants listed in Table I of Rule 1401 resulting in MICR greater than 1E-6 per permit unit or greater than 10E-6 per facility.

The proposed project will result in a minimal emission increase of toxic emissions associated with the operation. Therefore Public Notice is not required under this section of the rule.

(g): Project emissions < threshold.

RULE 219 No exempt equipment in this project.

RULE 401 No visible emission is expected with proper operation of the equipment.

RULE 402 No nuisance is expected with proper operation of the equipment.

RULE 404 Equipment is expected to operate in compliance.

RULE 405 Equipment is expected to operate in compliance.

REG XIII/XX The revised version of Reg. XIII (eff. 4/20/01) is applicable.

APPLICATION NO. 483638

OFFSET: The modification to the dried rock crushing and screening system resulted in net emission decrease for PM10, therefore no emission offset is required.

BACT: The modification to the dried rock crushing and screening system resulted in net emission decrease for PM10, therefore BACT does not apply.

MODELING: The modification to the dried rock crushing and screening system resulted in net emission decrease for PM10, therefore modeling does not apply.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
13	13
APPL. NO.	DATE
see pg 1	5/24/09
PROCESSED BY	CHECKED BY
M QUIZON	

APPLICATION NO. 483652

OFFSET: The truck loading system resulted in minimal emission increase (less than 0.5 lb/day) for PM10, therefore no emission offset is required.

BACT: As shown on the above calculations, the uncontrolled emissions from truck loading system is less than 1 lb/day, therefore BACT is not required.

MODELING: The modification to the material crushing, screening and load-out system did not result in any emission change for PM10, therefore modeling does not apply.

APPLICATION NOS. 498726 and 498727

OFFSET: The substitution of a new material (DREW) to a part of the slate oil and usage in coolers no. 1 and no. 2 of the roofing granules coloring lines nos. 1 and 2 will result in emission decrease for VOC, therefore no emission offset is required.

BACT: The substitution of a new material (DREW) to a part of the slate oil and usage in coolers no. 1 and no. 2 of the roofing granules coloring lines nos. 1 and 2 will result in emission decrease for VOC, therefore BACT does not apply.

MODELING: Modeling not required for VOC.

RULE 3000 As shown on the above evaluation, the modification to the dried rock crushing and screening system, material crushing, screening and load-out system and change of condition to the granule coloring systems will not result in any emission increase, therefore, the modification to the Title V permit is a minor permit revision.

RECOMMENDATION

Issue a permit to construct/operate with conditions.