

New Basis, Inc.
2626 Kansas Ave.
Riverside, CA 92507
ID: 40806

EQUIPMENT DESCRIPTION

A/N 515594 (Modification to PC issued under a/n 485720):
MODIFICATION OF AN EXISTING AIR POLLUTION CONTROL SYSTEM BY REMOVING THE EXISTING SPRAY BOOTH:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. REGENERATIVE THERMAL OXIDIZER, ADWEST, MODEL NO. RETOX 12.0RTO95, 9'-2" W. X 24'-0" L. X 10'-6" H., 12,000 SCFM CAPACITY, WITH ONE 3,434,000 BTU/HR NATURAL GAS-FIRED MAXON KINEMAX 4G BURNER, ONE 7.5 HP COMBUSTION AIR BLOWER AND TWO CERAMIC BEDS, EACH WITH 13,200 LBS OF CERAMIC MEDIA.
2. SPRAY BOOTH, ENVIROCURE, MODEL NO. SSFRP2PG2100, FLOOR TYPE, 50'-5" W. X 55'-0" L. X 10'-0" H., WITH THREE 3'-0" W. X 36'-0" L. FIRST-STAGE EXHAUST FILTERS, FOUR 3'-0" W. X 1'-6" L. SECOND-STAGE EXHAUST FILTERS AND FOUR 3'-0" W. X 1'-6" L. THIRD-STAGE EXHAUST FILTERS AND TWO 15 HP EXHAUST FANS.
3. EXHAUST SYSTEM WITH ONE PERMANENT TOTAL ENCLOSURE AND ONE 50 HP EXHAUST BLOWER VENTING ONE SPRAY BOOTH.

AND REPLACING IT WITH A NEW SPRAY BOOTH AND EXHAUST FILTER BOX:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. REGENERATIVE THERMAL OXIDIZER, ADWEST, MODEL NO. RETOX 12.0RTO95, 9'-2" W. X 24'-0" L. X 10'-6" H., 12,000 SCFM CAPACITY, WITH ONE 3,434,000 BTU/HR NATURAL GAS-FIRED MAXON KINEMAX 4G BURNER, ONE 7.5 HP COMBUSTION AIR BLOWER AND TWO CERAMIC BEDS, EACH WITH 13,200 LBS OF CERAMIC MEDIA.
2. SPRAY BOOTH, SPRAYLINE, MODEL NO. SPRAYLINE 35, AUTOMOTIVE TYPE, 28'-0" W. X 35'-0" L. X 10'-0" H., WITH FORTY-TWO 20" X 20" X 2" FIRST-STAGE EXHAUST FILTERS, FORTY-TWO 20" X 20" X 12" SECOND-STAGE EXHAUST FILTERS AND ONE 5 HP EXHAUST FAN.
3. EXHAUST FILTER SERVING PCBM1 AND PCBM2 WITH A ¼ HP EXHAUST FAN.
4. EXHAUST SYSTEM CONSISTING OF ONE 50 HP EXHAUST BLOWER VENTING ONE SPRAY BOOTH AND TWO POLYMER CONCRETE BATCH MIXERS (PCBM1 AND PCBM2).

A/N 514879 (Modification, change of condition, p/n F98567, a/n 476311):
MIXER, POLYMER CONCRETE BATCH MIXER 1, SHAR SYSTEMS, MODEL NO. D-258NZ, 13'-0" W. X 13'-10" L. X 15'-3" H., 182 GALLON MIXING TANK, WITH THREE HOPPERS AND ONE 25 HP MOTOR.

A/N 505170 (Operating w/o permit):
MIXER, POLYMER CONCRETE BATCH MIXER 2, 4'-0" DIA. X 3'-4" H., 300 GALLON CAPACITY, WITH

ONE 7.5 HP MOTOR.

A/N 505169: TITLE V PERMIT REVISION

CONDITIONS

A/N 515594 (RTO):

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE SPRAY BOOTH SHALL BE OPERATED AS A PERMANENT TOTAL ENCLOSURE. THE PERMANENT TOTAL ENCLOSURE SHALL MEET ALL THE CRITERIA SPECIFIED IN US EPA METHOD 204 DURING OPERATION OF THIS EQUIPMENT.
[RULE 1303(a)(1)-BACT]
4. THE EXHAUST FILTER SERVING PCBM1 AND PCBM2 SHALL OPERATE AT A CONTROL EFFICIENCY OF AT LEAST 98%.
[RULE 1303(a)(1)-BACT]
5. ALL ACCESS DOORS TO THE PERMANENT TOTAL ENCLOSURES SHALL BE KEPT CLOSED DURING NORMAL OPERATIONS.
[RULE 1303(a)(1)-BACT]
6. THE SPRAY BOOTH SHALL NOT BE OPERATED UNLESS ALL EXHAUST AIR PASSES THROUGH TWO-STAGE EXHAUST FILTERS AS SPECIFIED IN THE EQUIPMENT DESCRIPTION.
[RULE 1303(a)(1)-BACT]
7. GAUGES SHALL BE INSTALLED AND MAINTAINED TO INDICATE, IN INCHES OF WATER, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE SPRAY BOOTH EXHAUST FILTERS. IN OPERATION, THE PRESSURE DIFFERENTIAL SHALL NOT EXCEED 0.25 INCH OF WATER FOR THE FIRST STAGE AND 1.0 INCH OF WATER FOR THE SECOND STAGE.
[RULE 1303(a)(1)-BACT]
8. A GAUGE SHALL BE INSTALLED AND MAINTAINED TO INDICATE, IN INCHES OF WATER, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE EXHAUST FILTER(S) INSIDE THE EXHAUST FILTER BOX. IN OPERATION, THE PRESSURE DIFFERENTIAL SHALL NOT EXCEED 0.5 INCH OF WATER.
[RULE 1303(a)(1)-BACT]
9. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE 1, EXCEPT STYRENE, WITH AN EFFECTIVE DATE OF SEPTEMBER 10, 2010 OR EARLIER.
[RULE 1401]

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10. THE TOTAL AMOUNT OF VOC EMISSIONS DISCHARGED TO THE ATMOSPHERE FROM THIS EQUIPMENT SHALL NOT EXCEED 900 POUNDS IN ANY ONE CALENDAR MONTH.
[RULE 1303(b)(2)-OFFSET]
11. VOC EMISSIONS FROM THE USE OF RESIN (MANUAL APPLICATION ONLY) SHALL BE CALCULATED USING EITHER THE FOLLOWING EMISSION FACTORS OR OTHER EMISSION FACTORS APPROVED IN WRITING BY THE EXECUTIVE OFFICER:
- A. FOR STYRENE CONTENTS BETWEEN 33% AND 50%, USE THE FOLLOWING EMISSION FACTORS (AT DIFFERENT STYRENE CONTENTS):
- 83(AT 33%), 89 (AT 34%), 94 (AT 35%), 100 (AT 36%), 106 (AT 37%), 112 (AT 38%), 117 (AT 39%), 123 (AT 40%), 129 (AT 41%), 134 (AT 42%), 140 (AT 43%), 146 (AT 44%), 152 (AT 45%), 157 (AT 46%), 163 (AT 47%), 169 (AT 48%), 174 (AT 49%), 180 (AT 50%)
- B. FOR STYRENE CONTENTS <33%, USE THE FOLLOWING FORMULA:
EMISSION FACTOR = $0.126 \times (\% \text{STYRENE}) \times 2000$
- C. FOR STYRENE CONTENTS >50%, USE THE FOLLOWING FORMULA:
EMISSION FACTOR = $[(0.286 \times \% \text{STYRENE}) - 0.0529] \times 2000$
- D. THE ABOVE EMISSION FACTORS ARE IN POUNDS OF VOC EMITTED PER TON OF RESIN PROCESSED. THE ABOVE STYRENE CONTENTS ARE STYRENE MONOMER CONTENTS IN RESIN AS SUPPLIED, PLUS ANY EXTRA STYRENE MONOMER ADDED BY THE MOLDER, BUT BEFORE THE ADDITION OF OTHER ADDITIVES SUCH AS POWDERS, FILLERS, GLASS, ETC.
- E. THE VALUE FOR STYRENE CONTENT IN PERCENT BY WEIGHT (%STYRENE) IN THE FORMULAS IN (B) AND (C) ABOVE SHOULD BE INPUT AS A FRACTION. FOR EXAMPLE, USE THE INPUT VALUE 0.30 FOR A RESIN WITH 30% STYRENE CONTENT BY WEIGHT.
12. VOC EMISSIONS FROM THE USE OF RESIN (MECHANICAL ATOMIZED APPLICATION ONLY) SHALL BE CALCULATED USING EITHER THE FOLLOWING EMISSION FACTORS OR OTHER EMISSION FACTORS APPROVED IN WRITING BY THE EXECUTIVE OFFICER:
- A. FOR STYRENE CONTENTS BETWEEN 33% AND 50%, USE THE FOLLOWING EMISSION FACTORS (AT DIFFERENT STYRENE CONTENTS):
- 111 (AT 33%), 126 (AT 34%), 140 (AT 35%), 154 (AT 36%), 168 (AT 37%), 183 (AT 38%), 197 (AT 39%), 211 (AT 40%), 225 (AT 41%), 240 (AT 42%), 254 (AT 43%), 268 (AT 44%), 283 (AT 45%), 297 (AT 46%), 311 (AT 47%), 325 (AT 48%), 340 (AT 49%), 354 (AT 50%)
- B. FOR STYRENE CONTENTS <33%, USE THE FOLLOWING FORMULA:
EMISSION FACTOR = $0.169 \times (\% \text{STYRENE}) \times 2000$
- C. FOR STYRENE CONTENTS >50%, USE THE FOLLOWING FORMULA:
EMISSION FACTOR = $[(0.714 \times \% \text{STYRENE}) - 0.18] \times 2000$
- D. THE ABOVE EMISSION FACTORS ARE IN POUNDS OF VOC EMITTED PER TON OF RESIN PROCESSED. THE ABOVE STYRENE CONTENTS ARE STYRENE MONOMER CONTENTS IN RESIN AS SUPPLIED, PLUS ANY EXTRA STYRENE MONOMER ADDED BY

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THE MOLDER, BUT BEFORE THE ADDITION OF OTHER ADDITIVES SUCH AS POWDERS, FILLERS, GLASS, ETC.

- E. THE VALUE FOR STYRENE CONTENT IN PERCENT BY WEIGHT (%STYRENE) IN THE FORMULAS IN (B) AND (C) ABOVE SHOULD BE INPUT AS A FRACTION. FOR EXAMPLE, USE THE INPUT VALUE 0.30 FOR A RESIN WITH 30% STYRENE CONTENT BY WEIGHT.
13. TO ENSURE COMPLIANCE WITH THE EMISSION LIMIT OF THIS PERMIT, THE OPERATOR SHALL:
- A. IN ADDITION TO THE RECORDKEEPING REQUIREMENTS OF RULE 109, KEEP ADEQUATE RECORDS FOR THIS EQUIPMENT AND THIS FACILITY TO VERIFY DAILY AND MONTHLY VOC EMISSIONS IN POUNDS AND THE VOC CONTENT OF EACH MATERIAL AS APPLIED (INCLUDING WATER AND EXEMPT COMPOUNDS).
- B. WITHIN 14 CALENDAR DAYS AFTER THE END OF EACH MONTH, TOTAL AND RECORD VOC EMISSIONS FOR THE MONTH FROM ALL EQUIPMENT AND OPERATIONS THAT ARE REQUIRED TO HAVE WRITTEN PERMITS OR ARE EXEMPT FROM WRITTEN PERMITS PURSUANT TO RULE 219. THE RECORDS SHALL INCLUDE ANY PROCEDURES USED TO ACCOUNT FOR CONTROL DEVICE EFFICIENCIES AND/OR WASTE DISPOSAL. IT SHALL BE SIGNED AND CERTIFIED FOR ACCURACY BY THE HIGHEST RANKING INDIVIDUAL RESPONSIBLE FOR COMPLIANCE WITH DISTRICT RULES.
- C. MAINTAIN A SINGLE LIST WHICH INCLUDES ONLY THE NAME AND ADDRESS OF EACH PERSON FROM WHOM THE FACILITY ACQUIRED VOC-CONTAINING MATERIAL REGULATED BY THE DISTRICT THAT WAS USED OR STORED AT THE FACILITY DURING THE PRECEDING 12 MONTHS.
- D. RETAIN ALL PURCHASE INVOICES FOR ALL VOC-CONTAINING MATERIAL USED OR STORED AT THE FACILITY AND ALL WASTE MANIFESTS FOR ALL WASTE VOC-CONTAINING MATERIAL REMOVED FROM THE FACILITY FOR FIVE YEARS.

ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE PREPARED IN A FORMAT WHICH IS ACCEPTABLE TO THE DISTRICT, RETAINED AT THE FACILITY FOR FIVE YEARS AND MADE AVAILABLE TO ANY DISTRICT REPRESENTATIVE UPON REQUEST.
[RULE 109, 1303(b)(2)-OFFSET]

14. THE OPERATOR SHALL OPERATE AND MAINTAIN THE REGENERATIVE THERMAL OXIDIZER ACCORDING TO THE FOLLOWING REQUIREMENTS:
- A. THE COMBUSTION CHAMBER TEMPERATURE SHALL BE MAINTAINED AT A MINIMUM OF 1,400 DEGREES FAHRENHEIT WHENEVER THE EQUIPMENT IT SERVES IS IN OPERATION.
- B. THE OPERATOR SHALL OPERATE AND MAINTAIN A TEMPERATURE MEASURING AND RECORDING SYSTEM TO CONTINUOUSLY MEASURE AND RECORD THE COMBUSTION CHAMBER TEMPERATURE PURSUANT TO THE OPERATION AND MAINTENANCE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.7. SUCH A SYSTEM SHALL HAVE AN ACCURACY OF WITHIN 1% OF THE TEMPERATURE BEING MONITORED AND SHALL BE INSPECTED, MAINTAINED, AND CALIBRATED ON AN ANNUAL BASIS IN

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ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE TEMPERATURE INDICATING AND RECORDING SYSTEM SHALL BE IN OPERATION WHENEVER THE EQUIPMENT IT SERVES IS IN OPERATION.

- C. FOR THE PURPOSE OF THIS CONDITION, A DEVIATION SHALL BE DEFINED AS WHEN A COMBUSTION CHAMBER TEMPERATURE OF LESS THAN 1,400 DEGREES FAHRENHEIT OCCURS DURING NORMAL OPERATION OF THE EQUIPMENT IT SERVES. THE OPERATOR SHALL REVIEW THE RECORDS OF THE COMBUSTION CHAMBER TEMPERATURE ON A DAILY BASIS TO DETERMINE IF A DEVIATION OCCURS OR SHALL INSTALL AN ALARM SYSTEM TO ALERT THE OPERATOR WHEN A DEVIATION OCCURS.
- D. 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 COMBUSTION CHAMBER TEMPERATURE AT OR ABOVE 1,400 DEGREES FAHRENHEIT AND KEEP RECORDS OF THE DURATION AND CAUSE (INCLUDING UNKNOWN CAUSE, IF APPLICABLE) OF THE DEVIATION AND THE CORRECTIVE ACTION TAKEN.
- E. ALL DEVIATIONS SHALL BE REPORTED TO THE AQMD PURSUANT TO THE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.9 AND CONDITION NOS. 22 AND 23 IN SECTION K OF THIS PERMIT. THE 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.
- F. THE OPERATOR SHALL SUBMIT AN APPLICATION WITH A QUALITY IMPROVEMENT PLAN (QIP) IN ACCORDANCE WITH 40 CFR PART 64.8 TO THE AQMD IF AN ACCUMULATION OF DEVIATIONS EXCEEDS 5% DURATION OF THIS EQUIPMENT'S TOTAL OPERATING TIME FOR 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.
- G. THE OPERATOR SHALL INSPECT AND MAINTAIN ALL COMPONENTS OF THIS EQUIPMENT ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- H. THE OPERATOR SHALL KEEP ADEQUATE RECORDS IN A FORMAT WHICH 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.
[RULE 1303(a)(1)-BACT, 40CFR PART 64]
15. THE REGENERATIVE THERMAL OXIDIZER SHALL BE MAINTAINED AND OPERATED AT A MINIMUM VOC DESTRUCTION EFFICIENCY OF 95% AND AN OVERALL VOC CONTROL EFFICIENCY (DESTRUCTION AND COLLECTION) OF 95% WHEN THE EQUIPMENT IT SERVES IS IN OPERATION
[RULE 1303(a)(1)-BACT, 1303(b)(2)-OFFSET]
16. THE START-UP BURNER SHALL NOT USE MORE THAN 9,000 CUBIC FEET OF NATURAL GAS IN ANY ONE DAY.

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[RULE 1303(a)(1)-BACT]

17. A NON-RESETTABLE TOTALIZING FUEL METER SHALL BE INSTALLED AND MAINTAINED TO VERIFY COMPLIANCE WITH CONDITION NO. 16.
[RULE 1303(a)(1)-BACT]

18. THE START-UP BURNER SHALL COMPLY WITH RULE 1147.
[RULE 1147]

19. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT A SOURCE TEST UNDER THE FOLLOWING CONDITIONS:

A. THE SOURCE TEST SHALL BE CONDUCTED NO LATER THAN 180 DAYS AFTER THE INITIAL START-UP OF THE REGENERATIVE THERMAL OXIDIZER UNLESS OTHERWISE APPROVED IN WRITING BY THE DISTRICT.

B. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED TO DISTRICT ENGINEER, TODD IWATA, NO LATER THAN 60 DAYS AFTER THE INITIAL START-UP OF THE REGENERATIVE THERMAL OXIDIZER UNLESS OTHERWISE APPROVED IN WRITING BY THE DISTRICT. THE TEST PROTOCOL SHALL BE APPROVED IN WRITING BY THE DISTRICT BEFORE THE TEST COMMENCES. THE TEST PROTOCOL SHALL INCLUDE COMPLETED DISTRICT FORMS ST-1 AND ST-2 SPECIFYING THE PROPOSED OPERATING CONDITIONS OF THE EQUIPMENT DURING THE TEST, THE IDENTITY OF THE TESTING LABORATORY, A STATEMENT FROM THE TESTING LABORATORY CERTIFYING IT MEETS THE CRITERIA IN DISTRICT RULE 304(k), AND A DESCRIPTION OF THE SAMPLING AND ANALYTICAL PROCEDURES TO BE USED.

C. THE SOURCE TEST SHALL CONSIST OF, BUT MAY NOT BE LIMITED TO, A TEST OF THE INLET AND EXHAUST OF THE REGENERATIVE THERMAL OXIDIZER WHEN THE SPRAY BOOTH AND TWO MIXERS (PCBM 1 AND 2) ARE IN OPERATION SIMULTANEOUSLY FOR:

- (1) VOC IN PPMV AND LBS/HR AT THE RTO'S EXHAUST.
- (2) VOC IN PPMV AND LBS/HR AT EACH MIXER'S MIXING AND DISCHARGE POINTS.
- (3) VOC DESTRUCTION EFFICIENCY OF RTO.
- (4) VOC COLLECTION EFFICIENCY OF RTO AND MIXERS.
- (5) OXIDES OF NITROGEN (NO_x) IN PPMV AND LBS/HR FROM THE START-UP BURNER DURING START UP (RTO EXHAUST).
- (6) CARBON MONOXIDE (CO) IN PPMV AND LBS/HR (RTO EXHAUST).
- (7) NATURAL GAS USAGE DURING START-UP.
- (8) USAGE OF ALL VOC-CONTAINING MATERIALS DURING THE TEST.
- (9) OXYGEN CONTENT.
- (10) MOISTURE CONTENT.
- (11) FLOW RATE.
- (12) TEMPERATURE.

D. THE SOURCE TEST SHALL BE CONDUCTED WHILE BOTH MIXERS ARE MIXING AND DISCHARGING.

E. THE TEST SHALL DETERMINE IF THE SPRAY BOOTH ENCLOSURE IS A PERMANENT TOTAL ENCLOSURE PURSUANT TO METHOD 204.

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- F. THE SOURCE TEST SHALL BE CONDUCTED DURING NORMAL OPERATION WHILE THE OXIDIZER IS OPERATING AT A TEMPERATURE OF NOT LESS THAN THE MINIMUM OPERATING TEMPERATURE SPECIFIED IN THIS PERMIT. THE OPERATING TEMPERATURE IN THE COMBUSTION CHAMBER SHALL BE RECORDED DURING THE ENTIRE TESTING PERIOD AND INCLUDED IN THE SOURCE TEST REPORT. IF THE OPERATING TEMPERATURE DURING THE SOURCE TEST IS GREATER THAN THE MINIMUM OPERATING TEMPERATURE SPECIFIED IN THIS PERMIT, THE MINIMUM OPERATING TEMPERATURE MAY BE INCREASED AT THE TIME A PERMIT TO OPERATE IS ISSUED TO REFLECT THE OPERATING TEMPERATURE DURING THE SOURCE TEST. IN ADDITION, THE USAGE OF ALL VOC-CONTAINING MATERIALS (GEL COAT, SOLVENTS, COATINGS, ETC.) IN THE EQUIPMENT VENTED TO THIS EQUIPMENT SHALL BE RECORDED DURING THE TEST.
- G. IN ADDITION TO THE TEST DURING NORMAL OPERATION, A SOURCE TEST FOR NO_x AND CO EMISSIONS SHALL ALSO BE CONDUCTED DURING THE START-UP OF THE OXIDIZER BEFORE THE PROCESS AIR STREAM FROM THE SPRAY BOOTH AND MIXERS IS INTRODUCED INTO THE OXIDIZER.
- H. A WRITTEN NOTICE OF THE SOURCE TEST SHALL BE SUBMITTED TO THE DISTRICT ENGINEER, TODD IWATA, AT LEAST 14 DAYS PRIOR TO THE SOURCE TESTING DATE SO THAT AN OBSERVER FROM THE DISTRICT MAY BE PRESENT.
- I. TWO COMPLETE COPIES OF THE SOURCE TEST REPORT SHALL BE SUBMITTED TO THE DISTRICT ENGINEER, TODD IWATA, WITHIN 45 DAYS AFTER THE SOURCE TESTING DATE. THE SOURCE TEST REPORT SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, ALL TESTING DATA REQUIRED BY THIS CONDITION.
- J. A TESTING LABORATORY CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANTS TO BE MEASURED, AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TESTS.
- K. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.
- L. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL SUBMIT THE RESULTS OF ALL TESTS (INCLUDING PRELIMINARY TESTS) THAT ARE CONDUCTED ON THIS EQUIPMENT FOR INFORMATIONAL PURPOSES TO THE DISTRICT ENGINEER, TODD IWATA, WITHIN 45 DAYS AFTER THE TESTING DATE.
[RULE 1303(a)(1)-BACT]
20. THE OWNER OR OPERATOR SHALL CONDUCT A SOURCE TEST TO DETERMINE AN EMISSION FACTOR(S), IN POUNDS OF VOC PER POUND OF RESIN, FOR BOTH MIXERS (PCBM1 AND PCBM2) OPERATED AT THIS FACILITY UNDER THE FOLLOWING CONDITIONS:
- A. THE SOURCE TEST SHALL BE CONDUCTED TO CALCULATE MONTHLY VOC EMISSIONS USING THE EMISSION FACTOR(S) DERIVED FROM THE SOURCE TEST.
- B. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED TO DISTRICT ENGINEER, TODD IWATA. THE TEST PROTOCOL SHALL BE APPROVED IN WRITING BY THE DISTRICT BEFORE THE TEST COMMENCES. THE TEST PROTOCOL SHALL INCLUDE COMPLETED

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DISTRICT FORMS ST-1 AND ST-2 SPECIFYING THE PROPOSED OPERATING CONDITIONS OF THE EQUIPMENT DURING THE TEST, THE IDENTITY OF THE TESTING LABORATORY, A STATEMENT FROM THE TESTING LABORATORY CERTIFYING IT MEETS THE CRITERIA IN DISTRICT RULE 304(k), AND A DESCRIPTION OF THE SAMPLING AND ANALYTICAL PROCEDURES TO BE USED.

- C. THE SOURCE TEST SHALL BE CONDUCTED DURING NORMAL OPERATION OF THE MIXERS WHICH INCLUDES AT A MINIMUM, LOADING, MIXING, CASTING, MOLDING AND DEMOLDING. THE TOTAL QUANTITY OF ALL MATERIALS USED IN THE MIXERS DURING THE TEST SHALL BE RECORDED.
 - D. A WRITTEN NOTICE OF THE SOURCE TEST SHALL BE SUBMITTED TO THE DISTRICT ENGINEER, TODD IWATA, AT LEAST 14 DAYS PRIOR TO THE SOURCE TESTING DATE SO THAT AN OBSERVER FROM THE DISTRICT MAY BE PRESENT.
 - E. TWO COMPLETE COPIES OF THE SOURCE TEST REPORT SHALL BE SUBMITTED TO THE DISTRICT ENGINEER, TODD IWATA, WITHIN 45 DAYS AFTER THE SOURCE TESTING DATE. THE SOURCE TEST REPORT SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, ALL TESTING DATA REQUIRED BY THIS CONDITION.
 - F. A TESTING LABORATORY CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANTS TO BE MEASURED, AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TESTS.
 - G. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217. [RULE 1303(a)(1)-BACT]
21. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL SUBMIT THE RESULTS OF ALL TESTS (INCLUDING PRELIMINARY TESTS) THAT ARE CONDUCTED ON THIS EQUIPMENT FOR INFORMATIONAL PURPOSES TO THE DISTRICT ENGINEER, TODD IWATA, WITHIN 45 DAYS AFTER THE TESTING DATE.
[RULE 1303(a)(1)-BACT]

Periodic Monitoring:

- 22. THE OPERATOR SHALL DETERMINE AND RECORD THE PRESSURE DROP ACROSS ALL FILTER MEDIA ONCE EVERY WEEK.
[RULE 3004 (a)(4)]
- 23. THE OPERATOR SHALL PERFORM A WEEKLY INSPECTION OF THE EQUIPMENT AND FILTER MEDIA FOR LEAKS, BROKEN OR TORN FILTER MEDIA AND IMPROPERLY INSTALLED FILTER MEDIA. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):
 - A. THE NAME OF THE PERSON PERFORMING THE INSPECTION AND/OR MAINTENANCE OF THE FILTER MEDIA;
 - B. THE DATE, TIME AND RESULTS OF THE INSPECTION; AND
 - C. THE DATE, TIME AND DESCRIPTION OF ANY MAINTENANCE OR REPAIRS RESULTING

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FROM THE INSPECTION.

[RULE 3004 (a)(4)]

24. THE OPERATOR SHALL CONDUCT SOURCE TEST(S) IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
- A. THE TEST SHALL BE CONDUCTED AT LEAST ONCE DURING THE LIFE OF THE PERMIT.
 - B. THE TEST SHALL BE CONDUCTED NO LATER THAN MARCH 26, 2015 UNLESS OTHERWISE APPROVED IN WRITING BY THE DISTRICT.
 - C. THE TEST SHALL BE CONDUCTED TO DETERMINE THE VOC EMISSIONS USING AN APPROVED DISTRICT METHOD TO DEMONSTRATE COMPLIANCE WITH ALL APPLICABLE PERMIT CONDITION(S), RULES AND REGULATIONS.
 - D. THE SOURCE TEST SHALL BE CONDUCTED WHILE THE OXIDIZER IS OPERATING AT A TEMPERATURE OF NOT LESS THAN THE MINIMUM OPERATING TEMPERATURE SPECIFIED IN THIS PERMIT. IF THE OPERATING TEMPERATURE DURING THE SOURCE TEST IS GREATER THAN THE MINIMUM OPERATING TEMPERATURE SPECIFIED IN THIS PERMIT, THE MINIMUM OPERATING TEMPERATURE SPECIFIED IN THIS PERMIT MAY BE INCREASED TO REFLECT THE OPERATING TEMPERATURE DURING THE SOURCE TEST.
 - E. THE OPERATOR SHALL COMPLY WITH ADMINISTRATIVE CONDITIONS NOS. 8, 9, AND 10 OF SECTION E OF THIS FACILITY PERMIT.
 - F. THE OPERATOR SHALL SUBMIT TWO COMPLETE COPIES OF THE SOURCE TEST REPORT SPECIFIED IN CONDITION NO. 9 OF SECTION E OF THIS FACILITY PERMIT TO THE DISTRICT ENGINEERING AND COMPLIANCE DIVISION. THE ENGINEERING COPY OF THE REPORT SHALL BE SENT TO: SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, COATING, PRINTING, PLATING, MILITARY AND ENTERTAINMENT OPERATIONS, ATTN: AIR QUALITY AND COMPLIANCE SUPERVISOR, 21865 COPLEY DRIVE, DIAMOND BAR, CA 91765. THE COMPLIANCE COPY OF THE REPORT SHALL BE SENT TO: SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765
- [RULE 3004(a)(4)]

Emissions And Requirements:

25. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- VOC: RULE 109
 - VOC: RULE 1162, SEE APPENDIX B FOR EMISSION LIMITS
 - VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: RULE 481
 - PM: 0.1 GR/SCF, RULE 409
 - CO: 2000 PPMV, RULE 407
 - NOx: RULE 1147
 - HAP: 40 CFR63 SUBPART WWWW, SEE SECTION J FOR REQUIREMENTS

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A/N 514879 (PCBM1):

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE MIXER AND CONVEYOR TUBES CONNECTED TO THE MIXER SHALL BE COVERED WITH HEAVY-DUTY PLASTIC WRAP TO MINIMIZE FUGITIVE DUST EMISSIONS.
[RULE 1303(a)(1)-BACT]
4. THE MIXER SHALL NOT BE OPERATED UNLESS IT IS ONLY VENTED TO AN AIR POLLUTION CONTROL EQUIPMENT, WHICH IS IN FULL USE, AND WHICH HAS BEEN ISSUED AN OPERATING PERMIT BY THE EXECUTIVE OFFICER.
[RULE 1303(a)(1)-BACT]
5. THE TOTAL QUANTITY OF MATERIALS MIXED IN THIS EQUIPMENT SHALL NOT EXCEED 115,000 POUNDS IN ANY ONE DAY.
[RULE 1303(b)(2)-OFFSET]
6. RECORDS SHALL BE MAINTAINED TO VERIFY COMPLIANCE WITH CONDITION NO. 5. THESE RECORDS SHALL BE RETAINED ON FILE FOR AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 109, 1303(b)(2)-OFFSET]
7. VOC EMISSIONS SHALL BE DETERMINED USING THE FOLLOWING EMISSION FACTORS:

LOADING/MIXING EMISSIONS = 0.0053 LB VOC/LB RESIN X RESIN USED (LB/DAY)

MOLDING/DEMOLDING EMISSIONS = 0.0023 LB VOC/LB RESIN X RESIN USED (LB/DAY)
8. IN ADDITION TO THE RECORDKEEPING REQUIREMENTS OF RULE 109, THE OPERATOR SHALL:
 - A. KEEP ADEQUATE RECORDS FOR THIS EQUIPMENT AND THIS FACILITY TO VERIFY DAILY AND MONTHLY VOC EMISSIONS IN POUNDS AND THE VOC CONTENT OF EACH MATERIAL AS APPLIED (INCLUDING WATER AND EXEMPT COMPOUNDS).
 - B. WITHIN 14 CALENDAR DAYS AFTER THE END OF EACH MONTH, TOTAL AND RECORD VOC EMISSIONS FOR THE MONTH FROM ALL EQUIPMENT AND OPERATIONS THAT ARE REQUIRED TO HAVE WRITTEN PERMITS OR ARE EXEMPT FROM WRITTEN PERMITS PURSUANT TO RULE 219. THE RECORDS SHALL INCLUDE ANY PROCEDURES USED TO ACCOUNT FOR CONTROL DEVICE EFFICIENCIES AND/OR WASTE DISPOSAL. IT SHALL BE SIGNED AND CERTIFIED FOR ACCURACY BY THE HIGHEST RANKING INDIVIDUAL RESPONSIBLE FOR COMPLIANCE WITH DISTRICT RULES.
 - C. MAINTAIN A SINGLE LIST WHICH INCLUDES ONLY THE NAME AND ADDRESS OF EACH PERSON FROM WHOM THE FACILITY ACQUIRED VOC-CONTAINING MATERIAL

APPLICATION PROCESSING AND CALCULATION

REGULATED BY THE DISTRICT THAT WAS USED OR STORED AT THE FACILITY DURING THE PRECEDING 12 MONTHS.

- D. RETAIN ALL PURCHASE INVOICES FOR ALL VOC-CONTAINING MATERIAL USED OR STORED AT THE FACILITY AND ALL WASTE MANIFESTS FOR ALL WASTE VOC-CONTAINING MATERIAL REMOVED FROM THE FACILITY FOR FIVE YEARS.
- 9. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE PREPARED IN A FORMAT WHICH IS ACCEPTABLE TO THE DISTRICT, RETAINED AT THE FACILITY FOR FIVE YEARS AND MADE AVAILABLE TO ANY DISTRICT REPRESENTATIVE UPON REQUEST.
[RULE 109, 1303(b)(2)-OFFSET]
- 10. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS AS IDENTIFIED IN RULE 1401, TABLE 1, AS AMENDED SEPTEMBER 10, 2010 OR EARLIER WITH THE EXCEPTION OF STYRENE.
[RULE 1401]
- 11. NO VOC CONTAINING MATERIALS, EXCEPT POLYESTER RESINS, SHALL BE USED IN THIS EQUIPMENT.
[RULE 1303(b)(2)-OFFSET]

Periodic Monitoring:

- 12. 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:

- A. 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
- B. 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:

- A. STACK OR EMISSION POINT IDENTIFICATION;

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- B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]

Emissions And Requirements:

- 13. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS

HAP: 40 CFR63 SUBPART WWW, SEE SECTION J FOR REQUIREMENTS

A/N 505170 (PCBM2):

- 1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
- 2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
- 3. THE MIXER AND CONVEYOR TUBES CONNECTED TO THE MIXER SHALL BE COVERED WITH HEAVY-DUTY PLASTIC WRAP TO MINIMIZE FUGITIVE DUST EMISSIONS.
[RULE 1303(a)(1)-BACT]
- 4. THE MIXER SHALL NOT BE OPERATED UNLESS IT IS ONLY VENTED TO AN AIR POLLUTION CONTROL EQUIPMENT, WHICH IS IN FULL USE, AND WHICH HAS BEEN ISSUED AN OPERATING PERMIT BY THE EXECUTIVE OFFICER.
[RULE 1303(a)(1)-BACT]
- 5. THE TOTAL QUANTITY OF MATERIALS MIXED IN THIS EQUIPMENT SHALL NOT EXCEED 115,000 POUNDS IN ANY ONE DAY.
[RULE 1303(b)(2)-OFFSET]
- 6. RECORDS SHALL BE MAINTAINED TO VERIFY COMPLIANCE WITH CONDITION NO. 5. THESE RECORDS SHALL BE RETAINED ON FILE FOR AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 109, 1303(b)(2)-OFFSET]
- 7. VOC EMISSIONS SHALL BE DETERMINED USING THE FOLLOWING EMISSION FACTORS:

LOADING/MIXING EMISSIONS = 0.0053 LB VOC/LB RESIN X RESIN USED (LB/DAY)

MOLDING/DEMOLDING EMISSIONS = 0.0023 LB VOC/LB RESIN X RESIN USED (LB/DAY)
- 8. IN ADDITION TO THE RECORDKEEPING REQUIREMENTS OF RULE 109, THE OPERATOR SHALL:

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- A. KEEP ADEQUATE RECORDS FOR THIS EQUIPMENT AND THIS FACILITY TO VERIFY DAILY AND MONTHLY VOC EMISSIONS IN POUNDS AND THE VOC CONTENT OF EACH MATERIAL AS APPLIED (INCLUDING WATER AND EXEMPT COMPOUNDS).
 - B. WITHIN 14 CALENDAR DAYS AFTER THE END OF EACH MONTH, TOTAL AND RECORD VOC EMISSIONS FOR THE MONTH FROM ALL EQUIPMENT AND OPERATIONS THAT ARE REQUIRED TO HAVE WRITTEN PERMITS OR ARE EXEMPT FROM WRITTEN PERMITS PURSUANT TO RULE 219. THE RECORDS SHALL INCLUDE ANY PROCEDURES USED TO ACCOUNT FOR CONTROL DEVICE EFFICIENCIES AND/OR WASTE DISPOSAL. IT SHALL BE SIGNED AND CERTIFIED FOR ACCURACY BY THE HIGHEST RANKING INDIVIDUAL RESPONSIBLE FOR COMPLIANCE WITH DISTRICT RULES.
 - C. MAINTAIN A SINGLE LIST WHICH INCLUDES ONLY THE NAME AND ADDRESS OF EACH PERSON FROM WHOM THE FACILITY ACQUIRED VOC-CONTAINING MATERIAL REGULATED BY THE DISTRICT THAT WAS USED OR STORED AT THE FACILITY DURING THE PRECEDING 12 MONTHS.
 - D. RETAIN ALL PURCHASE INVOICES FOR ALL VOC-CONTAINING MATERIAL USED OR STORED AT THE FACILITY AND ALL WASTE MANIFESTS FOR ALL WASTE VOC-CONTAINING MATERIAL REMOVED FROM THE FACILITY FOR FIVE YEARS.
9. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE PREPARED IN A FORMAT WHICH IS ACCEPTABLE TO THE DISTRICT, RETAINED AT THE FACILITY FOR FIVE YEARS AND MADE AVAILABLE TO ANY DISTRICT REPRESENTATIVE UPON REQUEST.
[RULE 109, 1303(b)(2)-OFFSET]
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[RULE 1401]
11. NO VOC CONTAINING MATERIALS, EXCEPT POLYESTER RESINS, SHALL BE USED IN THIS EQUIPMENT.
[RULE 1303(b)(2)-OFFSET]

Periodic Monitoring:

12. 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:

- A. 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
- B. 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:

- A. STACK OR EMISSION POINT IDENTIFICATION;
- B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]

Emissions And Requirements:

- 13. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS

HAP: 40 CFR63 SUBPART WWWW, SEE SECTION J FOR REQUIREMENTS

BACKGROUND

A/N 515594:

New Basis submitted application no. 515594 to modify an existing air pollution control system consisting of a regenerative thermal oxidizer and a spray booth that is operating under a Permit to Construct (application no. 485720). The system will be modified by incorporating the complete modification under a/n 511315 and by venting two polymer concrete batch mixers (PCBM1 and PCBM2) to it. Ducts will be added to the two mixers connecting them to the RTO. A ¼ HP exhaust fan and a filter box housing an exhaust filter will be added downstream from the mixers and before the RTO as a precaution to minimize particulate matter emissions expected from the mixing operations.

Previously, New Basis submitted application no. 511315 to notify the District that they modified the control system by removing the Envirocure spray booth and replacing it with a smaller Sprayline spray booth. The smaller booth is better matched with the RTO than the larger booth due to the lower exhaust flow rate. The RTO is sized at 12,000 CFM and will be able to handle the exhaust from the spray booth and two mixers. The new booth was installed in June 2010. This application was never processed and will be cancelled since it has been replaced with application no. 515594.

A/N 514879:

This application was submitted to modify a permitted (p/n F98567) polymer concrete batch mixer (PCBM1). New Basis requested an increase in the material throughput for the mixer and this will cause an increase in VOC emissions requiring compliance with BACT. Ductwork and a hood will be added to the mixer to vent it to the RTO to control VOC emissions during mixing and pouring. The total amount of material mixed in the mixer will increase from 18,000 lb/day to 115,000 lb/day. The previous permit for the mixer (a/n 476311) and subsequent open application (a/n 493705) will both be cancelled after a permit is issued.

A/N 505170:

This application was submitted to permit New Basis' other polymer concrete batch mixer, PCBM2. PCBM2 is currently operating with an expired permit (permit no. F24082). Ducting and a hood will also be added to the mixer and pouring area to vent it to the RTO. New Basis also requested a material throughput of 115,000 for this mixer.

New Basis is a Title V facility. A Title V renewal permit was issued to this facility on March 26, 2006. New Basis has proposed to revise their Title V permit with application no. 505169 by permitting a polymer concrete batch mixer and modifying another polymer concrete batch mixer and a control system consisting of an RTO and spray booth. The permit revision is considered as a "de minimis significant permit revision" to the Title V renewal permit, as described in Regulation XXX evaluation.

PROCESS DESCRIPTION

New Basis manufactures polymer concrete underground enclosures and lids used to house telephone, power and TV cables as well as, water/turf/irrigation piping and valves. The enclosures are sized from 3" W. x 4" L. x 6" D. to 36" W. x 48" L. x 48" H. The enclosures are made by applying fiberglass resins to molds. The resins are applied to the molds inside the spray booth using chop guns that are feed with resin from 55-gal drums. The resin has a styrene monomer content of 34% by weight. Covers for the enclosures are made using autocasters which mixes dry materials with resin and pours the mixture into molds. The enclosures and covers are not painted. Molds for the enclosures and the lids are made at the facility. Acetone is used for cleaning. The spray booth/RTO will be limited 900 lb/month (equipment limit), under a facility VOC cap of 5,133 lb/month. The spray booth/RTO operates up to 24 hr/day, 6 day/wk and 50 wk/yr.

Some enclosures and lids are made using the polymer concrete batch mixers. The mixers mix sand, gravel, calcium carbonate, polyester resin and a small amount of pigment. Batches are completely mixed in 10 to 20 minutes and the mixture is poured into 55 gallon drums. The full drums are hoisted above the molds and a valve underneath the drum is opened to allow the mixture to pour into the molds. Before the mixture is poured into the molds it is initiated with methyl ethyl ketone peroxide. The mixture takes about one hour to cure in the molds. The allowable maximum amount of materials to be mixed in each mixer will be 115,000 lb/day.

The mixers are operated up to 18 hr/day, 6 day/wk and 50 wk/yr. A batch is comprised of the following:

Material	Batch (%)
Resin	14.73
Pigment	0.27
Calcium carbonate	20.1
Sand	30.7
Gravel	34.2
Total	100

Six inch diameter ducts will be added to the lids and pouring areas of both mixers. Approximately 200 feet of duct will be added between the mixers and RTO. The expected static differential pressure drop along the duct will be about 0.25 inches of water and will not affect the flow. The duct work and exhaust fan was designed as follows:

$$\text{Fan flow} = 200 \text{ ft}^3/\text{min}$$

$$\text{Fan velocity} = 1,000 \text{ ft}/\text{min}$$

$$\text{Fan power} = \frac{1}{4} \text{ HP}$$

$$\text{Duct diameter} = 6''$$

$$\text{Cross-sectional area} = \pi r^2/144 = \pi(3)^2/144 = 0.196 \text{ ft}^2$$

$$\begin{aligned} \text{Operational flow rate} &= \text{Cross-sectional area} \times \text{fan velocity} = 0.196 \text{ ft}^2 \times 1,000 \text{ ft}/\text{min} \\ &= 196 \text{ ft}^3/\text{min} \end{aligned}$$

The selected (design) exhaust fan should be sufficient since its operational flow rate is less than the design flow rate ($196 \text{ ft}^3/\text{min} < 200 \text{ ft}^3/\text{min}$).

EMISSION ESTIMATES

A/N 515594

The Maxon burner has been designed to emit NOx at 85ppmv corrected to 3% O₂. Future compliance with Rule 1147 (60 ppmv) will be required by July 1, 2013.

Normal operating schedule of start-up burner: 1 hr/day, 5 day/wk, 50 wk/yr

$$\text{Maximum firing rate during start-up} = 3,434,000 \text{ Btu}/\text{hr} \div 1,050 \text{ Btu}/\text{ft}^3 = 3,270 \text{ ft}^3/\text{hr}$$

$$\text{Maximum fuel usage during start-up} = 0.99 \text{ lb}/\text{day} \times 1 \text{ mmscf}/110 \text{ lb}/\text{mmscf} = 9,000 \text{ ft}^3/\text{day}$$

APPLICATION PROCESSING AND CALCULATION

	<u>maximum</u>	<u>normal</u>		
<u>hr/dy</u>	24	1	<u>max heat input</u>	3.94E+05 (BTU/hr)
<u>dy/wk</u>	7	6	<u>gross heating value</u>	1050 (BTU/scf)
<u>wk/yr</u>	52	52		
<u>load</u>	100%	100%		

	<u>Emission</u>	<u>MAX</u>	<u>AVE</u>	<u>MAX</u>	<u>30-DAY</u>	<u>MAX</u>	<u>MAX</u>
	<u>Factors</u>	(lb/hr)	(lb/hr)	(lb/dy)	(lb/dy)	(lb/yr)	(ton/yr)
SO ₂ (R1)	0.83	0.000	0.000	0.007	NA	3	0.001
SO ₂ (R2)	0.83	0.000	0.000	0.007	0.007	3	0.001
NO ₂ (R1)	130	0.049	0.049	1.170	NA	426	0.213
NO ₂ (R2)	110	0.041	0.041	0.990	0.990	360	0.180
CO (R1)	35	0.013	0.013	0.315	NA	115	0.057
CO (R2)	35	0.013	0.013	0.315	0.315	115	0.057
PM, PM ₁₀ (R1=R2)	7.5	0.003	0.003	0.068	0.068	25	0.012
TOC (R1=R2)	7	0.003	0.003	0.063	0.063	23	0.011

acetaldehyde	0.0043	1.6E-06	1.6E-06	3.9E-05	NA	1.41E-2	7.04E-6
acrolein	0.0027	1.0E-06	1.0E-06	2.4E-05	NA	8.85E-3	4.42E-6
ammonia	3.2	1.2E-03	1.2E-03	2.9E-02	NA	1.05E+1	5.24E-3
benzene	0.008	3.0E-06	3.0E-06	7.2E-05	NA	2.62E-2	1.31E-5
ethyl benzene	0.0095	3.6E-06	3.6E-06	8.6E-05	NA	3.11E-2	1.56E-5
formaldehyde	0.017	6.4E-06	6.4E-06	1.5E-04	NA	5.57E-2	2.78E-5
hexane	0.0063	2.4E-06	2.4E-06	5.7E-05	NA	2.06E-2	1.03E-5
naphthalene	0.0003	1.1E-07	1.1E-07	2.7E-06	NA	9.83E-4	4.91E-7
PAH's	0.0001	3.8E-08	3.8E-08	9.0E-07	NA	3.28E-4	1.64E-7
propylene	0.731	2.7E-04	2.7E-04	6.6E-03	NA	2.39E+0	1.20E-3
toluene	0.0366	1.4E-05	1.4E-05	3.3E-04	NA	1.20E-1	6.00E-5
xylenes	0.0272	1.0E-05	1.0E-05	2.4E-04	NA	8.91E-2	4.46E-5

NO ₂ @ 3% excess O ₂ ----->>>	84.75	(ppmv)	SO ₂ @ 3% excess O ₂ ----->>>	0.46	(ppmv)
CO @ 3% excess O ₂ ----->>>	44.29	(ppmv)	PM @ 12% CO ₂ ----->>>	5.5E-09	(grain/ft ³)

A/N 505170 (PCBM2) & 514879 (PCBM1):

VOC Emissions:

During a facility visit, AQMD staff measured the concentration of hydrocarbons coming from the mixers using an organic vapor analyzer. Background concentrations were measured in the office and in the plant near PCBM1 and additional measurements taken when: (1) resin was added to the mixer, (2) dry materials were added to the mixer and (3) the mixture was poured out of the mixer into a drum. The concentrations varied and using the average figures, VOC emission estimates were made. Emissions from the mixer are due to loading materials into the mixer, mixing, and discharging the mixture into 55-gallon drums. Emissions are also released during molding and demolding. The loading, mixing and discharging phases of the mixer will be controlled using the RTO while the molding and demolding processes are not. Emissions from loading, mixing and discharging are calculated using the data obtained using the organic vapor analyzer and emissions from the molding and demolding process will be

APPLICATION PROCESSING AND CALCULATION

estimated using a source test-derived emission factor from another facility with a similar resin operation. The molding/demolding emission factor is 0.0023 lb VOC/lb resin x lb resin used per day. After the ducts are installed, a source test will be performed to determine the amount of VOC from the mixers that are vented to the RTO. A smoke test will also be performed around both mixers to determine if all emissions are being drawn into the mixer and vented to the RTO.

PCBM1:

Total Emissions = Loading/Mixing + Discharging + Molding/Demolding

Loading/mixing emissions (EF_{mixing}):

Exhaust flow rate (blower) = 800 cfm

Response factor (styrene) = 0.29 (FID)

FID measurements = 1794 ppm (average)

Batches/hr = 3

Batches/day = 30

Batch size = 2100 lb

Resin content = 14.7%

$$EF_{\text{mixing}} = [(1794 \text{ ppm})(0.29)/10^6 \text{ ppm}][[(104 \text{ lb/lb-mole})(800 \text{ ft}^3/\text{min})(\text{lb-mole}/379 \text{ ft}^3)(60 \text{ min/hr})]$$

$$EF_{\text{mixing}} = 6.85 \text{ lb/hr}$$

Since a batch is mixed for 15 minutes and they will mix three batches per day, the factor is adjusted as:

$$EF_{\text{mixing}} = 6.85 \text{ lb/hr} \times 45 \text{ min}/60 \text{ min} = 5.14 \text{ lb/hr}$$

Discharging emissions ($EF_{\text{discharge}}$):

FID measurements = 1398 ppm (average)

$$EF_{\text{discharge}} = [(1398 \text{ ppm})(0.29)/10^6 \text{ ppm}][[(104 \text{ lb/lb-mole})(800 \text{ ft}^3/\text{min})(\text{lb-mole}/379 \text{ ft}^3)(60 \text{ min/hr})]$$

$$EF_{\text{discharge}} = 5.33 \text{ lb/hr}$$

Discharging lasts roughly 5 minutes, adjusting the factor as:

$$EF_{\text{discharge}} = 5.33 \text{ lb/hr} \times 15 \text{ min}/60 \text{ min} = 1.33 \text{ lb/hr}$$

$$EF_{\text{total}} = EF_{\text{mixing}} + EF_{\text{discharge}} = 5.14 + 1.33 = 6.47 \text{ lb/hr}$$

Resin usage per hour = 2100 lb/batch x (0.147) x 3 batches/hr = 926 lb/hr

$$EF_{\text{total}} = (6.47 \text{ lb VOC/hr})/(926 \text{ lb resin/hr}) = 0.007 \text{ lb VOC/lb resin}$$

APPLICATION PROCESSING AND CALCULATION

Adjustment factor:

$$(115,000 \text{ lb/day}) / (2100 \text{ lb/batch}) \div 3 \text{ batch/hr} = 18 \text{ hr/day} / 24 \text{ hr/day} = 0.75$$

$$EF_{\text{total}} = (0.007 \text{ lb VOC/lb resin})(0.75) = 0.0053 \text{ lb VOC/lb resin}$$

(A source test will be required to validate this emission factor.)

PCBM1:

Total material throughput increases from 18000 lb/day to 115000 lb/day.

Control efficiency = 90% (min req'd)

Resin content = 14.7%

$$\text{Resin usage} = (115000 - 18000)(0.147) = 14259 \text{ lb/day}$$

$$\text{Uncontrolled daily emissions} = 14259 \text{ lb/day} \times 0.0053 \text{ lb VOC/lb resin} = 75.6 \text{ lb/day}$$

$$\text{Controlled daily emissions} = 75.6 \text{ lb/day} \times (1 - 0.9) = 7.6 \text{ lb/day}$$

Molding/demolding:

$$EF = 0.0023 \text{ lb VOC/lb resin} \times \text{resin usage}$$

$$\text{Daily emission} = 0.0023 \times 14259 \text{ lb/day} = 32.8 \text{ lb/day}$$

$$\text{Total emissions} = 7.6 + 32.8 = 40.4 \text{ lb/day}$$

PCBM2:

Emissions from PCBM2 are slightly different than those from PCBM1 since the daily material throughput is 115000 lb/day.

$$\text{Resin usage} = (115000)(0.147) = 16905 \text{ lb/day}$$

$$\text{Uncontrolled daily emissions} = 16905 \text{ lb/day} \times 0.0053 \text{ lb VOC/lb resin} = 89.6 \text{ lb/day}$$

$$\text{Controlled daily emissions} = 89.6 \text{ lb/day} \times (1 - 0.9) = 8.9 \text{ lb/day}$$

Molding/demolding:

$$EF = 0.0023 \text{ lb VOC/lb resin} \times \text{resin usage}$$

$$\text{Daily emission} = 0.0023 \times 16905 \text{ lb/day} = 38.9 \text{ lb/day}$$

$$\text{Total emissions} = 8.9 + 38.9 = 47.8 \text{ lb/day}$$

PM10 Emissions:

PM emissions are generated from PCBM1 and PCBM2 from mixing the dry materials of the batch, i.e. sand, gravel, calcium carbonate and pigment. PM10 emissions are likely from the calcium carbonate, sand and pigment but for a conservation emission estimate, gravel is included in the calculations.

PCBM1:

Total material throughput = 97000 lb/day (115000 lb/day – 18000 lb/day)

Control efficiency = 98%

Dry material content = 85.3%

PM10 emissions = 50% PM emissions

Emission factor 0.24 lb PM/2000 lb

Uncontrolled PM10 emissions = 97000 lb/day x 0.24/2000 x 0.5 x 0.853 = 4.96 lb/day

Controlled PM10 emissions = 4.96 lb/day x (1 – 0.98) = 0.10 lb/day

PCBM2:

Total material throughput = 115000 lb/day

Control efficiency = 98%

Dry material content = 85.3%

PM10 emissions = 50% PM emissions

Emission factor 0.24 lb PM/2000 lb

Uncontrolled PM10 emissions = 115000 lb/day x 0.24/2000 x 0.5 x 0.853 = 5.9 lb/day

Controlled PM10 emissions = 5.9 lb/day x (1 – 0.98) = 0.12 lb/day

To minimize fugitive emissions from the mixers, the conveyors that feed into the mixers are covered with heavy-duty plastic wrap which effectively contains all dust within the conveyor tubes. The storage bins associated with the mixers are also covered with filter bedding material that essentially eliminates any dust.

RISK ASSESSMENT:

A health risk assessment is required due to the toxic air contaminant emissions that are generated from the resin that is used in the spray booth and from the combustion of natural gas in the RTO. The assessment was performed using the Rule 1401 Risk Assessment computer program. The assessment was based on a fuel usage of 9,000 ft³/day, a residential receptor distance of 608 meters and an off-site worker receptor distance of 77 meters. The calculated cancer risk for the residential receptor is 1.69 x 10⁻⁹ and 3.84 x 10⁻⁸ for the off-site worker receptor. The acute and chronic hazard risks are very small, well below the threshold limit of 1. The proposed project will not cause a cancer or health hazard risk and compliance is achieved. See attached modeling sheets in application no. 515594.

The resin has styrene which is a Rule 1401 toxic air contaminant but there will not be an increase in VOC emissions from the facility and hence there is not an increase in styrene emissions.

RULE ANALYSIS

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. The facility is not located within 1,000 feet of the outer boundary of a school, the closest school (North High School) is 0.7 miles away.

RULE 212 (c)(2) & RULE 212(g): 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). A public notice is required due to the increase in VOC emissions from the mixers. The increase from both mixers is 88.2 lb/day but this will not cause an overall facility-wide emissions increase, emissions will remain under 5,133 lb/month.

	Maximum Daily Emissions					
	ROG	NO_x	PM₁₀	SO₂	CO	Pb
Emission increase	88	1	0	0	0	0
MAX Limit (lb/day)	30	40	30	60	220	3
Compliance Status	Yes	Yes	Yes	Yes	Yes	Yes

RULE 212(c)(3): This section requires a public notice for all new or modified permit units with increases in emissions of toxic air contaminants listed in Table I of Rule 1401 resulting in a cancer risk equal or greater than one in a million. There will not be a cancer risk equal or greater than one in a million.

RULES 401 & 402: Three odor complaints have been filed against this facility since November 2004, the last in September 2006. The new RTO is expected to operate at a greater efficiency than the previous air pollution control system and better control odors. Odor or visible emission complaints are not expected.

RULES 404 & 405: All particulate emission sources are being controlled. Compliance is expected.

RULE 407: Operation of the RTO will not result in the release of CO emissions exceeding 2,000 ppm. Although compliance is expected, a source test will determine actual CO concentrations.

APPLICATION PROCESSING AND CALCULATION

RULE 409: PM emissions from the proposed RTO is expected to be less than 0.1 gr/scf. Compliance is expected.

RULE 1147: The RTO was fitted with a burner that emits NOx at 85 ppmv corrected to 3% O₂. The burner will have to be modified or replaced per the requirements of this rule (by July 1 of the year which is 15 years after the manufacture date of the burner).

RULE 1162: New Basis uses VOC compliant resins and compliant transfer efficiency equipment. Compliance with this rule is achieved.

Rule 1171: New Basis uses acetone for cleaning purposes. Acetone is an exempt compound and complies with Rule 1171.

RULE 1303:

(a): The RTO system is air pollution control equipment for the basic equipment that it serves. This system is expected to operate with an overall control efficiency of 95% (95% destruction efficiency and 100% capture efficiency by PTE). The mixers will vented to a particulate filtering device and the RTO. A source test will be performed to determine efficiencies.

The NOx emissions from the start-up burner is less than one pound per day, a fuel usage limit of 9,000 ft³/day will be imposed on the start-up burner. The limit is based on the manufacturer's guaranteed NOx concentration of 86 ppm corrected to 3%. A nonresettable fuel usage meter will be installed in the gas line to the start-up burner.

(b)(1): Modeling is not required, NOx, CO and PM10 emissions are below threshold levels for the RTO and mixers.

RTO:

Pollutant	Estimated Emissions (lb/hr)	Modeling Threshold Emission Limit (lb/hr)
NOx	0.041	0.2
CO	0.013	11
PM10	0.003	1.2

Mixers:

Pollutant	Estimated Emissions (lb/hr)	Modeling Threshold Emission Limit (lb/hr)
PM10	0.22	0.41

(b)(2): NOx emissions from the RTO are exempt from offset requirements pursuant to Rule 1304(d), facility emissions less than 4 tons. There are no other permitted combustion sources at this facility. VOC emissions from the use materials in the spray booth and mixers will not cause an increase above the existing facility VOC cap, offsets are not required.

(b)(4)/(b)(5): The facility is expected to be in full compliance with all applicable rules and regulations of the District.

RULE 1401: Compliance is expected, see RISK ASSESSMENT section of this report.

REGULATION XXX:

This facility is not in the RECLAIM program. The proposed project is considered as a “de minimis significant permit revision” to the Title V permit for this facility.

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

Air Contaminant	Daily Maximum (lb/day)
HAP	30
VOC	30
NOx	40
PM10	30
Sox	60
CO	220

To determine if a project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the Title V renewal permit shall be accumulated and compared to the above threshold levels. This proposed project is the second permit revision to the Title V renewal permit issued to this facility on March 26, 2006. Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a “de minimis significant permit revision”. The following table summarizes the cumulative emission increases resulting from all permit revisions since the renewal Title V permit was issued:

Revision	HAP	VOC	NOx	PM₁₀	SOx	CO
Previous Permit Revision Total	0	0	2	0	0	1
4 th Permit Revision: Replace spray booth, vent two mixers to RTO, modify mixer & add mixer	0	0	0	0	0	0
Net Emission Total	0	0	2	0	0	1
Maximum Daily	30	30	40	30	60	220

RECOMMENDATION:

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