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	<u>419825</u>	<u>11/14/2007</u>
	<u>ENGINEER</u>	<u>CHECK BY</u>
	<u>HTF</u>	

PERMIT TO OPERATE

COMPANY NAME: ACCESS BUSINESS GROUP LLC.

MAILING ADDRESS: 5600 BEACH BLVD.
P.O. BOX 5940, BUENA PARK, CA 90622

EQUIPMENT ADDRESS: 19600 6TH STREET
LAKEVIEW, CA 92567

EQUIPMENT DESCRIPTION

APPLICATION NO. 419825:

FLUIDIZED BED DRYING, SEPARATION, AND PACKAGING SYSTEM (T7) CONSISTING OF:

1. BOWL BIN, 4'-10" DIA. X 1'-11" H.
2. FLUIDIZED BED DRYER, T7, HOT AIR, 5'-0" DIA. X 11'-0" H.
3. MIXING TANK, 4'-6" DIA. X 3'-6" H., 250 GALLON CAPACITY, 0.25 H.P.
4. PRESSURE POT.
5. PNEUMATIC TRANSFER BLOWER, VAC-U-MAX, 10 H.P.
6. SWECO SCREEN, 4'-0" DIA. X 2'-3" H., 1.5 H.P.
7. MILL, 7.5 H.P.
8. PACKAGING STATION.

APPLICATION NO. 432128:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. DUST COLLECTOR, FARR, MODEL GS-12, WITH TWELVE FILTER CARTRIDGES, TOTAL FILTER AREA OF 2,400 SQ. FT., PULSE JET CLEANED.
2. EXHAUST SYSTEM WITH A 40 H.P. BLOWER VENTING A FLUIDIZED BED DRYER (T7).

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APPLICATION NO. 441902:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. DUST COLLECTOR, FARR, MODEL 20L, WITH TWENTY FILTER CARTRIDGES, TOTAL FILTER AREA OF 4,400 SQ. FT., PULSE JET CLEANED.
2. EXHAUST SYSTEM WITH A 10 H.P. BLOWER VENTING A FLUIDIZED BED DRYER (T7), FLUIDIZED BED DRYER (T8), TWO SWECO SCREENS, TWO MILLS, AND TWO PACKAGING STATIONS.

HISTORY

The fluidized bed dryer system was received by the District on 9/9/03 as P/C no P/O and was validated on 9/9/03. The model GS-12 dust collector application (A/N 432128) was received by the District on 7/8/04 as P/O and was validated on 7/9/04. The model 20L dust collector application (A/N 441902) was received by the District on 3/15/05 as P/O and was validated on 3/16/05. The company is in the business of vitamin and food supplement manufacturing. A check in the Compliance database shows no violations for the facility for the last five years.

PROCESS DESCRIPTION

The raw materials which are blended on A/N 441899 (blending/milling system) come to this equipment to be agglomerated. The mixture is processed in the fluidized beds by adding binding agents (e.g. water, starch, sugar) to aid in agglomerating the particles. This binding agent is prepared in the mix tank and is sprayed directly into the bowl bin. This bed is also used to dry moist materials. After the process is complete, the material is transferred to a milling machine and ground to the desired size range. The finished product is then packaged in an appropriate container and stored for future on-site or off-site use. This fluidized bed dryer system is vented to two dust collectors under A/N 432128 and 441902.

EVALUATION

The throughput from the blending/milling system to the T7 and T8 (A/N 419827) is at 1,352 lbs/hr. Assumption is that half of the materials will then go to T7 to be agglomerated and the other half of the materials will go to T8 to be agglomerated.

1. Throughput = 676 lbs/hr
2. Operating schedules = 24 hrs/day, 7 days/wk, 52 weeks/yr

Assumptions:

1. Emission factor = 2 lbs PM/ton.
2. PM10 = (0.56)(PM)
3. Control eff. = 99%

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Computations:

PM Emissions:

$$R1 = 676 \text{ lbs/hr} \times 2 \text{ lbs PM/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 0.676 \text{ lb/hr}$$

$$R2 = 0.676 \text{ lb/hr} \times 0.01 = 0.007 \text{ lb/hr}$$

PM10 Emissions:

$$R1 = 0.676 \text{ lbs/hr} \times 0.56 = 0.38 \text{ lb/hr}$$

$$R2 = 0.007 \text{ lbs/hr} \times 0.56 = 0.004 \text{ lb/hr}$$

$$R2(\text{daily}) = 0.004 \text{ lbs/hr} \times 24 \text{ hrs/dy} = 0.09 \text{ lb/dy}$$

$$R2(30\text{-day ave}) = 0.09 \text{ lb/dy}$$

$$R2(\text{yearly}) = 0.09 \text{ lbs/dy} \times 7 \text{ dys/wk} \times 52 \text{ wks/yr} = 34.25 \text{ lbs/yr}$$

$$\begin{aligned} \text{Maximum throughput} &= 676 \text{ lbs/hr} \times 24 \text{ hrs/dy} \times 7 \text{ dys/wk} \times 4.33 \text{ wks/mo} / 2000 \text{ lbs/ton} \\ &= 245 \text{ tons/mo} \end{aligned}$$

Air pollution control system filter ratio (A/N 432128):

$$\frac{3000 \text{ cfm}}{2400 \text{ sq.ft.}} = 1.25 \text{ fpm}$$

Air pollution control system filter ratio (A/N 441902):

$$\frac{5000 \text{ cfm}}{4440 \text{ sq.ft.}} = 1.13 \text{ fpm}$$

EPA recommends an air-to-cloth ratio of < 15:1 for pulse jet type dust collectors. Compliance.

RULES COMPLIANCE

- Rule 212: Not expected to exceed the emission limitations of subparagraph (a), (Health and Safety Code, Sect. 41700, and 41701). Also, no school within 1,000 ft of the equipment.
- Rule 401: No visible emissions in violation of this rule are expected since the equipment is vented to a baghouse.
- Rule 402: The small amount of PM emissions from the equipment are not expected to create any nuisance conditions.
- Rule 403: Fugitive emission problems are not expected since the equipment is vented to two dust collectors.

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Rule 404:

$$\frac{[0.007 \text{ LBS/HR}] [7000 \text{ GRAIN}] [1 \text{ HR}]}{[3,000 \text{ CFM}] [1 \text{ LB}] [60 \text{ MIN}]} = 0.0003 \text{ GR/FT}^3$$

This rule limits a maximum grain loading of 0.134 grain/ft³, therefore, this equipment is in compliance with provisions of this rule.

Rule 405:

Process Weight Rate = 676 lbs/hr
 Calculated Emissions = 0.007 lb/hr
 Allowed Emissions = 1.98 lbs/hr (Approx.)
 In compliance per calculations.

Rule 1303(a): BACT is a baghouse or dust collector for PM10 control. Since the equipment is vented to two dust collectors, compliance with this rule is demonstrated.

Rule 1303(b) (1): The allowable PM10 emissions for a noncombustion source are specified in Table A-1 as 0.41 lbs/hr. The controlled PM10 emissions from this equipment is less than 0.41 lbs/hr; therefore, no further screening analysis is required.

Rule 1303(b) (2): No emissions offset are required to this equipment.

Rule 1303(b) (3): N/A

Rule 1303(b) (4): The subject facility complies with all applicable rules and regulations of the District.

Rule 1303(b) (5): The subject facility is not a "major polluting facility." Therefore, the requirements of this rule do not apply.

Rule 1401: No toxics will be released.

RECOMMENDATION

It is recommended a conditional Permit to Operate be issued.

CONDITIONS

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APPLICATION NO. 419825:

1. STANDARD CONDITION.
2. STANDARD CONDITION.
3. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE EQUIPMENT IS VENTED ONLY TO AIR POLLUTION CONTROL EQUIPMENT WHICH ARE IN FULL USE AND WHICH HAVE BEEN ISSUED A PERMIT TO OPERATE BY THE EXECUTIVE OFFICER.
4. THIS EQUIPMENT SHALL NOT PROCESS MORE THAN 245 TONS OF MATERIAL IN ANY ONE CALENDAR MONTH.
5. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 4. THE RECORDS SHALL BE MAINTAINED FOR AT LEAST THE LAST FIVE YEARS, AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

APPLICATION NO. 432128:

1. STANDARD CONDITION.
2. STANDARD CONDITION.
3. THE FILTER CARTRIDGES SHALL BE CLEANED AT A FREQUENCY SPECIFIED BY THE MANUFACTURER.
4. DUST COLLECTED IN THE DUST COLLECTOR SHALL BE DISCHARGED ONLY INTO ENCLOSED CONTAINERS.
5. A MECHANICAL GAUGE SHALL BE INSTALLED AND MAINTAINED SO AS TO INDICATE, IN INCHES WATER COLUMN, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE FILTER CARTRIDGES.

APPLICATION NO. 441902:

1. STANDARD CONDITION.
2. STANDARD CONDITION.
3. THE FILTER CARTRIDGES SHALL BE CLEANED AT A FREQUENCY SPECIFIED BY THE MANUFACTURER.
4. DUST COLLECTED IN THE DUST COLLECTOR SHALL BE DISCHARGED ONLY INTO ENCLOSED CONTAINERS.
5. A MECHANICAL GAUGE SHALL BE INSTALLED AND MAINTAINED SO AS TO INDICATE, IN INCHES WATER COLUMN, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE FILTER CARTRIDGES.