

Golden Peanut Company  
Graceville, Florida

O&M Plan  
for  
Environmental Compliance

October 2005  
ATT-4 for Construction Permit  
Revision 2

## Graceville Plant

### **Purpose:**

This plan is designed to ensure that all environmental equipment and process equipment is operating properly prior to the beginning of the peanut drying system. The operation part of this plan tracks the amount of peanuts processed in the plant.

### **Document Maintenance:**

The O & M Plan should be reviewed and modified as necessary when new or modified equipment is added to the facility. At a minimum the plan should be reviewed prior to each peanut harvest season to see if any updates are required.

### **Maintenance:**

This facility has no environmental control devices that are used in the current operations. The maintenance crew needs to verify operation and condition of the process equipment annually prior to the drying season. Major equipment includes:

- Transfer pits for Building 14 (2)
- Transfer pit for cleaning building (1)
- Transfer pits for building 15 (2)
- Transfer pit for building 3 (1)
- Bucket conveyors for building 14 (3)
- Overhead conveyors for building 14 (2)
- Bucket conveyor for building 15
- Overhead conveyors for building 15
- Bucket conveyor for cleaning building (2)
- Bucket conveyor for building 3
- Overhead conveyors for building 3
- Approximately 40 propane heaters

### **Operations:**

The drying portion of this facility is operated by an outside contractor who leases the equipment. The equipment is maintained by Golden Peanut personnel.

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The leasing company processes all peanuts into the plant, but Golden peanut personnel must maintain environmental operation forms on a monthly basis.

Monthly forms are summarized on an annual emissions report maintained for DEP inspection.

### **Operator Training:**

It is the responsibility of the Golden Peanut personnel to train employees of the leasing company on the operating procedures associated with the equipment provided by Golden Peanut facility. This training should be completed annual at the start of each harvest season, and as required when personnel changes.

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Monthly Operating Log

Month of \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

Dry Peanuts transferred to Warehouse 14 \_\_\_\_\_ tons

Peanuts Cleaned \_\_\_\_\_ tons

Peanuts transferred from other site to warehouse \_\_\_\_\_ tons

Propane Purchased \_\_\_\_\_ gallons

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Equipment Log  
Building 14

North Unloading Station:

- Transfer pit inspected and ready for service \_\_\_\_\_
- Buck conveyor inspected and ready for service \_\_\_\_\_
- Overhead conveyor inspected and ready for service \_\_\_\_\_
- Operation of equipment has been review with operators and instructions on when to call for maintenance has been given \_\_\_\_\_

South Unloading Station:

- Transfer pit inspected and ready for service \_\_\_\_\_
- Buck conveyors (two) inspected and ready for service \_\_\_\_\_
- Overhead conveyor inspected and ready for service \_\_\_\_\_
- Operation of equipment has been review with operators and instructions on when to call for maintenance has been given \_\_\_\_\_

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Equipment Log  
Building 15

Unloading Station:

- Transfer pits inspected and ready for service \_\_\_\_\_
- Buck conveyor inspected and ready for service \_\_\_\_\_
- Overhead conveyor inspected and ready for service \_\_\_\_\_
- Operation of equipment has been review with operators and instructions on when to call for maintenance has been given  
\_\_\_\_\_

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Equipment Log  
Building 3

Unloading Station:

- Transfer pits inspected and ready for service \_\_\_\_\_
- Buck conveyor inspected and ready for service \_\_\_\_\_
- Overhead conveyor inspected and ready for service \_\_\_\_\_
- Operation of equipment has been review with operators and instructions on when to call for maintenance has been given  
\_\_\_\_\_

Table 9.10.2.1-1 (Metric And English Units). EMISSION FACTORS FOR ALMOND PROCESSING<sup>a</sup>

EMISSION FACTOR RATING: E

Source	Filterable PM		Condensable Inorganic PM		PM-10 <sup>b</sup>	
	kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton
Unloading <sup>c</sup> (SCC 3-02-017-11)	0.030	0.060	ND	ND	ND	ND
Precleaning cyclone <sup>d</sup> (SCC 3-02-017-12)	0.48	0.95	ND	ND	0.41	0.82
Precleaning baghouse <sup>e</sup> (SCC 3-02-017-12)	0.0084	0.017	ND	ND	0.0075	0.015
Hulling/separating cyclone <sup>d</sup> (SCC 3-02-017-13)	0.57	1.1	ND	ND	0.41	0.81
Hulling/separating baghouse <sup>e</sup> (SCC 3-02-017-13)	0.0078	0.016	ND	ND	0.0065	0.013
Hulling/shelling baghouse <sup>f</sup> (SCC 3-02-017-14)	0.026	0.051	0.0068	0.014	ND	ND
Classifier screen deck cyclone <sup>d</sup> (SCC 3-02-017-15)	0.20	0.40	ND	ND	0.16	0.31
Air leg <sup>d</sup> (SCC 3-02-017-16)	0.26	0.51	ND	ND	ND	ND
Roaster <sup>g</sup> (SCC 3-02-017-17)	ND	ND	ND	ND	ND	ND

<sup>a</sup> Process weights used to calculate emission factors include nuts and orchard debris as taken from the field, unless noted. ND = no data. SCC = Source Classification Code.

<sup>b</sup> PM-10 factors are based on particle size fractions found in Reference 1 applied to the filterable PM emission factor for that source. See Reference 3 for a detailed discussion of how these emission factors were developed.

<sup>c</sup> References 1-3,10-11.

<sup>d</sup> Reference 1. Emission factor is for a single air leg/classifier screen deck cyclone. Facilities may contain multiple cyclones.

<sup>e</sup> References 1,9.

<sup>f</sup> Reference 10.

<sup>g</sup> Factors are based on finished product throughputs.

Table 1.5-1. EMISSION FACTORS FOR LPG COMBUSTION<sup>a</sup>

EMISSION FACTOR RATING: E

Pollutant	Butane Emission Factor (lb/10 <sup>3</sup> gal)		Propane Emission Factor (lb/10 <sup>3</sup> gal)	
	Industrial Boilers <sup>b</sup> (SCC 1-02-010-01)	Commercial Boilers <sup>c</sup> (SCC 1-03-010-01)	Industrial Boilers <sup>b</sup> (SCC 1-02-010-02)	Commercial Boilers <sup>c</sup> (SCC 1-03-010-02)
PM <sup>d</sup>	0.6	0.5	0.6	0.4
SO <sub>2</sub> <sup>e</sup>	0.09S	0.09S	0.10S	0.10S
NO <sub>x</sub> <sup>f</sup>	21	15	19	14
N <sub>2</sub> O <sup>g</sup>	0.9	0.9	0.9	0.9
CO <sub>2</sub> <sup>h,j</sup>	14,300	14,300	12,500	12,500
CO	3.6	2.1	3.2	1.9
TOC	0.6	0.6	0.5	0.5
CH <sub>4</sub> <sup>k</sup>	0.2	0.2	0.2	0.2

<sup>a</sup> Assumes emissions (except SO<sub>x</sub> and NO<sub>x</sub>) are the same, on a heat input basis, as for natural gas combustion. The NO<sub>x</sub> emission factors have been multiplied by a correction factor of 1.5, which is the approximate ratio of propane/butane NO<sub>x</sub> emissions to natural gas NO<sub>x</sub> emissions. To convert from lb/10<sup>3</sup> gal to kg/10<sup>3</sup> L, multiply by 0.12. SCC = Source Classification Code.

<sup>b</sup> Heat input capacities generally between 10 and 100 million Btu/hour.

<sup>c</sup> Heat input capacities generally between 0.3 and 10 million Btu/hour.

<sup>d</sup> Filterable particulate matter (PM) is that PM collected on or prior to the filter of an EPA Method 5 (or equivalent) sampling train. For natural gas, a fuel with similar combustion characteristics, all PM is less than 10 μm in aerodynamic equivalent diameter (PM-10).

<sup>e</sup> S equals the sulfur content expressed in gr/100 ft<sup>3</sup> gas vapor. For example, if the butane sulfur content is 0.18 gr/100 ft<sup>3</sup>, the emission factor would be (0.09 x 0.18) = 0.016 lb of SO<sub>2</sub>/10<sup>3</sup> gal butane burned.

<sup>f</sup> Expressed as NO<sub>2</sub>.

<sup>g</sup> Reference 12.

<sup>h</sup> Assuming 99.5% conversion of fuel carbon to CO<sub>2</sub>.

<sup>j</sup> EMISSION FACTOR RATING = C.

<sup>k</sup> Reference 13.

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Annual Emission Data

Month	Peanuts Cleaned (tons)	PM Emission Cleaning (tpy)	Dry Peanuts to Bldg 14 (tons)	PM Emission Bldg 14 (tpy) (1)	Peanuts transfer for Storage (tons)	PM Emission Bldg 14 (tpy) (1)	Total PM Emission (tons)	Propane consumed (gal) (2)	NOx Emissions (tpy)
Sept 05	4	0.0026	20.88	0.0013	0	0.0000	0.0039	8000	0.056
Oct 05									
Nov 05									
Dec' 05									
Annually							0.0039		0.0560

Note 1

- 1) Emission calculation includes handling of peanut to transfer off site as finished product as well as initial storage.
- 2) All Propane purchase during a specified month is considered consumed in that month.

I certify that the data contained in this 12- month rolling average is accurate and truthful to the best of my knowledge.

\_\_\_\_\_ Date: \_\_\_\_\_

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