

217/782-2113

JOINT CONSTRUCTION AND OPERATING PERMIT  
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL

PERMITTEE

Archer Daniels Midland Co.  
Attn: Chris Janick  
4666 Faries Parkway  
Decatur, Illinois 62526

Application No.: 99030077  
Applicant's Designation: XANTHAN GUM  
Subject: Xanthan Gum Production  
Date Issued: May 5, 2000  
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE  
Date Received: March 22, 1999  
Expiration Date: May 5, 2005

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a Xanthan Gum Production Plant, including the equipment listed in Attachment A as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct and operate the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 *et. seq.*, the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions, which follow:

1. Archer Daniels Midland (ADM) has requested a joint construction and operating permit for the Xanthan Gum plant (Plant) at its Decatur manufacturing complex. The revised permit would allow for greater volatile organic material (VOM) emissions from the plant. The VOM emissions from this plant consist of Isopropyl Alcohol (IPA).
2. The source is located in Decatur Township in Macon County. The area is designated attainment for all pollutants.

3. The requested permit would allow annual VOM emissions of 500 tons from the plant. The plant would therefore be subject to PSD as a major modification to an existing source for VOM emissions.
4. After reviewing the materials submitted by ADM, Illinois EPA has determined that the plant, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT) on emissions of VOM.
5. The Illinois EPA has determined that the plant, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.
6. A copy of the application and the Illinois EPA's formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following special conditions.
  - 2a. All process vents discharging VOM shall be enclosed and ducted through a closed vent system to a VOM emission control system.
    - b. The VOM emission control systems shall be designed, constructed and maintained to achieve at least 98% control of VOM comparing the amount of VOM introduced into the processes and the emissions to the atmosphere. These control systems shall be operated and maintained in conformance with good air pollution control practices.
  - 3a. The Permittee shall use open-ended valves only as needed for routine sampling of process unless and until an equivalent practice is approved by the Illinois EPA to minimize VOM emission losses from leaks.
    - b. The Permittee shall implement a Leak Detection and Repair Program for components in VOM service in the process units of the plant. This program shall include the following elements as a minimum:

i. Scope: The program covers all components that are in VOM service in the process operations, other than components in vacuum service and components equipped with a closed vent system ducted to a VOM control system, where the term component includes valves, pumps and agitators (shaft seals), flanges, other connectors (inspection ports, manways, sight glasses, etc.), closed vent systems, and pressure relief devices.

ii. Definitions:

Closed Vent System: A system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device. If gas or vapor from regulated equipment is routed to a process, the process shall not be considered a closed vent system.

In Vacuum Service: Equipment is operated at an internal pressure at least 5 kilopascals (kPa) below ambient pressure.

In VOM Service: A piece of equipment that contains or contacts a process fluid that is at least 10% VOM by weight.

Leak: An instrument reading of 10,000 PPM or greater for components other than pressure relief devices, an instrument reading of 500 PPM or greater for pressure relief devices, or observation of leaking material from a component as detected by sight, smell, or sound is considered a leak.

Low-Leak Design Pump: A pump fitted with double mechanical fluid pressurized seals, equipped with a permanent gauge\* for seal pressure and that is operated and maintained consistent with good practice, or other similar pump design as approved by the Illinois EPA that both minimizes leaks and directly reveals the presence of a leak.

\* The pressure gauge may be installed on the individual pump or as part of the seal fluid system.

iii. Monitoring

Monitoring: Monitoring conducted on at least the following basis for components using applicable instrument and source survey procedures specified by USEPA Method 21 (except that daily manual calibration is not required if the instrument is self-calibrating) or the screening procedures in such methods. Inspections are as follows:

- A. Quarterly for valves (except for conventional valves as USEPA skip-check criteria and alternative practices established in 40 CFR 60.483-2 (NSPS for SO2MI Leaks) are satisfied) and pumps (except pumps that are of low leak design);
  - B. Annually for closed vent systems;
  - C. Within a week for a pressure relief device after it experiences a pressure release;
  - D. Within a week for the flanges and other connectors in a particular area, system or feature after such components are involved in repair, maintenance, alteration or other activity that has the potential to result in a leak from flanges or other connectors, including resealing of a manway after entry to a vessel, if absence of leaking components was not verified as a final step in such activity by use of a soap solution or other comparable technique; and
  - E. Within a week after repair of a component for which a leak was detected and could not be readily repaired within one hour.
- iv. Repairs: Repairs made as soon as practicable but not later than the following:
- A. For a component other than a pump or valve, if a process unit shutdown is necessary to accomplish the repair, not later than the end of the next process unit shutdown.
  - B. For a pump or valve, if a process unit shutdown is necessary to accomplish the repair, not later than the end of the next process unit shutdown or 6 months, whichever occurs first, except that further delay of repair of a valve is allowed (beyond the next process unit shutdown) if reasonable supplies of repair parts or replacement valves are maintained but these supplies are depleted, in which case repair of a valve shall be accomplished not later than 6 months after the first process unit shutdown or 1 year after detection of the leak, whichever occurs first.
- v. Tagging: Tagging of leaking component if it cannot be readily repaired within one hour of detection of a leak, which tag includes the date the leak was detected and the date the leak was repaired and which tag is only removed after the repaired component is inspected.

- vi. Records: Records are maintained that:
  - A. Facilitate correct and consistent identification of the components that are covered by the program, including, at a minimum up to date Process Diagram for the plant.
  - B. Verify performance of required inspections, including date, personnel, proper implementation of inspection methods, purpose or scope of inspection, covered components and their leak status(i.e. leak or no leak).
  - C. Document each component leak that is identified, including identification of the component and the nature of the leak, and verify prompt repair of the leak, including the date the repair is completed and detailed explanation of the required actions for a leak repair that could not be completed within 30 days, further explanation if a repair could not be completed until process unit shutdown or thereafter, and the date required inspection of the component was performed following repair.
  - D. Compile the results of the program, including fulfillment of skip-check criteria for conventional valves when relied upon.
  - E. Identify each deviation from required practices, with appropriate identification, description and explanation.
  - F. Document proper operation, maintenance, and repair of low-leak design pumps.
- vii. Revisions: The minimum provisions for tagging and recordkeeping, as specified above, may be revised by the Illinois EPA in future operating permits for the plant to the extent that the Permittee demonstrates that effective detection and repair of leaking components is still reasonably assured by the revised provisions.
- 4a. The Permittee shall implement the following practices to minimize VOM losses from opening vessels and other units in the plant that may contain process materials that contain VOM. Prior to opening other vessels to the atmosphere, residual VOM that may be present shall be purged in accordance with written operating procedures developed to minimize loss of VOM to the atmosphere. These procedures shall include the following procedures that shall be updated on a regular basis to reflect the Permittee's experience with maintenance and repair of the plant unless and until an equivalent practice is approved by the Illinois EPA:

- i. Prior to opening a delumper, screw press or rotary screen to the atmosphere, the vessel shall be purged to clear residual VOM. The initial purge shall be performed for a minimum of 15 minutes. If residual VOM remains, as determined by smell, an additional 15-minute purge shall be performed. All vapors resulting from the purging of the equipment shall be vented to the IPA scrubber.
  - ii. Prior to opening a turbo dryer to the atmosphere, the dryer shall be cooled to at least 100EF. This cooling/purging operation shall be performed for a minimum of 30 minutes. If residual VOM remains and/or the dryer temperature is above 100EF, an additional 30-minute purge shall be performed. All purge vapors shall be vented to the turbo-dryer scrubber.
- b. Any VOM containing material removed in bulk from equipment due to maintenance and repair procedures shall be handled in closed containers immediately upon removal from the process unit and disposed of in a manner that minimizes loss of VOM to the atmosphere if possible, e.g., reintroducing to the process.
  - c. All IPA, IPA containing waste and IPA containing product shall be stored in sealed, non-leaking containers.
  - d. The Permittee shall keep maintenance log(s) for the plant that includes as a minimum:
    - i. Maintenance activities, with affected unit, dates and descriptions of inspections and confirmation of implementation of required repair actions;
    - ii. The written procedures required by condition 4(a).
    - iii. Detailed information concerning opening of vessels containing VOM including as a minimum:
      - A. Access panel(s) that had to be removed and total time access panel(s) were open;
      - B. VOM measured in PPM at access panel opening with method of determination, e.g., FID meter or Draeger tube;
      - C. Approximate amount of VOM containing material removed, if any, and estimated VOM content; and
      - D. Likely or possible cause of condition requiring maintenance with opening of the vessel to remove VOM containing material.

- e. The Permittee shall evaluate the above records and the operation of the plant to refine operating procedures and maintenance/repair procedures to minimize VOM losses associated with opening process vessels and other units. This evaluation shall include a written report that contains at a minimum a summary of the above records; an estimate of total losses of VOM associated with opening of process vessels; an estimate of the fraction of such VOM loss that is not lost to the atmosphere with explanation, identification of principle causes by such openings, a detailed discussion of possible measures to reduce such losses, and a plan of actions to reduce such losses. This evaluation shall be conducted on a semi annual basis if annual VOM emissions as determined in accordance with condition 5, are greater than 300 tons/year; annually if VOM emissions are greater than 200 tons/year; or otherwise on a biannual basis.

Conditions 2, 3 and 4 address Best Available Control Technology as required by Section 165 of the Clean Air Act.

- 5a. Total plant emissions of VOM shall not exceed 500 tons per year. Compliance with this limit shall be determined on a rolling 12 month basis, calculated monthly in accordance with condition 10(e).
- b. Stack emissions of VOM from the plant shall not exceed 9.0 lb/hr and 39.42 tons per year. Compliance with this limit shall be determined at the exhaust of the packed bed scrubber.
- c. Total plant emissions of VOM shall not exceed 300 tons per year on a 3 year rolling average. Compliance with this limit shall be determined on a rolling three year basis, calculated monthly in accordance with condition 10(e).
- 6a. Operation and particulate matter emissions of equipment shall not exceed the following limits:

<u>Desig.</u>	<u>Equipment</u>	<u>Exhaust Flow Rate (dscf/m)</u>	<u>PM Emissions (Lb/Hr) (T/Yr)</u>		<u>PM<sub>10</sub> Emissions (Lb/Hr)(Ton/Yr)</u>	
EP2	Gum Grinding	25,000	1.72	7.50	1.50	6.57
EP3	Agglomerate Dryer I	12,500	0.86	3.75	0.75	3.29
EP4	Agglomerate Dryer II	12,500	0.86	3.75	0.75	3.29
EP5	Screen/Pack I	2,500	0.17	0.74	0.15	0.66
EP6	Screen/Pack II	2,500	0.17	0.74	0.15	0.66
EP7	Storage	800	0.07	<u>0.30</u>	0.06	<u>0.26</u>
			Total	16.78	Total	14.73

These limits are based on the information provided in the permit application.

- b. This permit is issued based on negligible emissions of particulate matter from equipment not addressed above. For this purpose, total emissions shall not exceed nominal emission rates of 0.1 LB/hour and 0.44 ton/yr.
7. The VOM control system(s) for process operations, which consist of condensers and packed bed scrubbers, shall be operated in conformance with good air pollution control practice, by maintaining the maximum outlet temperature of condensers and the minimum scrubbant flow rate\* and pressure drop of the scrubber within the levels measured during emission testing in accordance with Condition 11.
- \* Scrubbant flow rate may be maintained at a level proportionate to the exhaust flow rate, if flow rate is measured.
- 8a. The Permittee shall install, operate, and maintain a device for monitoring scrubbant flow rate (gallons per minute) of the final vent scrubber, and shall maintain logs for the operation, maintenance, and repair of this device.
- b. The Permittee shall manually record the scrubbant flow rate of the final vent scrubber every 30 minutes if automatic measurements and recording devices are not in service for more than two hours.
9. The Permittee shall operate, maintain, and repair all air pollution VOM and particulate matter control equipment in a manner that assures the emission limits set in this permit are met. The actions taken by the Permittee to meet this requirement shall include as a minimum the following:
- a. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.
  - b. Inspections: Visual inspections of air pollution control equipment shall be conducted on at least a weekly basis.
  - c. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice.
  - d. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

- i. Date of inspection, maintenance, and repair activities.
  - ii. Description of maintenance or repair activity if not routine preventative maintenance.
  - iii. Probable cause for requiring maintenance or repair if not routine or preventative.
- 10a. The Permittee shall maintain records of the following items. These records shall be kept on at least a monthly basis unless otherwise indicated.
  - i. Xanthan gum production.
- b. The Permittee shall maintain records of the following items, which shall be kept current:
  - i. The amount of VOM, (lbs by type of material) typically in inventory in process area in the plant, that is, held in process vessels, in-process tanks, and piping.
  - ii. If the Permittee considers VOM contained in wastewater in determining compliance with Condition 4, records of the fraction of VOM in wastewater, by type of material, that is eliminated by wastewater treatment, e.g., destroyed by biodegradation, so that is not lost to the atmosphere during collection and wastewater treatment, as determined by appropriate USEPA models and analysis methods. (If this record is not maintained the Permittee need not keep the records specified by condition 10(c)(iii) and (e)(iii).
  - iii. If the Permittee considers VOM contained in product in determining compliance with Condition 5, records of the VOM content, by type, of each such VOM containing product.
- c. The Permittee shall maintain operating records for the following items:
  - i. Each receipt of VOM material, i.e., transfer from delivery vehicles or shipping containers to the plant or transfer from another operation to the plant, by type of material (lbs., as determined from scale weight tickets or records).
  - ii. Each shipment of VOM material, i.e., transfer to delivery vehicles or shipping containers for return to the supplier or transfer to another source from the plant, by type of material (lbs, as determined from scale weight tickets or records).

- iii. Quantity of wastewater containing VOM sent from the plant for treatment (gallon/day), and its VOM content (wt. % VOM, as determined from representative sampling and analysis).
  - iv. Quantity of VOM containing product(s) manufactured by the plant (lb/month) and its VOM content (wt. % VOM, determined from representative sampling and analysis).
  - v. Estimated amount of VOM material (lbs by type of material) in inventory in process areas in the plant, determined (1) with the initial material balance determination under this permit, and (2) on at least a calendar year basis thereafter.
  - vi. Operation of the plant, i.e., periods of time when various dryers and processes are not in operation, i.e., have been emptied of VOM material or are otherwise closed off.
  - vii. Changes in plant operating procedures that would significantly increase the amount or concentration of VOM in the exhausts from process operations, including changes in the amount or type of VOM used or changes in the amount of nitrogen or other inert gases introduced.
- d. The Permittee shall maintain records for the VOM control systems as follows:
- i. Scrubbant flow rate of the final vent scrubber shall be monitored in accordance with Condition 8.
  - ii. The following parameters shall be recorded once per shift at a minimum:
    - A. Scrubbant flow rate of each turbo dryer scrubber (gallons per minute).
    - B. Condensation fluid outlet temperature and condenser exhaust temperature for the tank vent condenser, for each of the distillation column condensers, and for each of the turbo dryer condensers (degrees F).
- e. The Permittee shall maintain monthly records of the following items with supporting calculations to determine VOM emissions from the plant by material balance:
- i. The total amount of VOM (lbs) received during the month, (Refer to Condition 10(c)(i)).

- ii. The total amount of VOM (lbs) shipped during the month (Refer to Condition 10(c)(ii)).
  - iii. The total amount of VOM (lbs) eliminated with wastewater during the month, if considered by the Permittee (Refer to Condition 10(b)(ii) and (c)(iii)).
  - iv. The total amount of VOM (lbs) contained in product during the month, if considered by the Permittee (Refer to Condition 10(b)(iii) and (c)(iv)).
  - v. Any significant change in the amount of VOM (lbs) in inventory in the plant, comparing the current determination for the amount of VOM in inventory with the previous determination (Refer to Condition 10(c)(v)).
  - vi. The total amount of VOM (lbs) emitted during the month, determined as (i) - (ii) - (iii) - (iv) - (v).
  - vii. The total amount of VOM (lbs) emitted during the year, determined as the total of the monthly emissions and the emissions of the previous 11 months (Refer to Condition 10(e)(vi)).
- f. The Permittee shall keep records summarizing the data pursuant to Condition 10(e)(vii) to determine total emissions of all VOM to address compliance with the conditions of this permit.
- g. The Permittee shall record any period during which any emission unit was in operation when its air pollution control equipment was not in operation or was not operating properly.
- i. These records shall include each period of time when an operating parameter of a VOM control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).
  - ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.
  - iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for the exceedance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

- 11a. i. Within 180 days of issuance of this permit, the VOM emissions from the VOM control system shall be measured at the Permittee's expense by an approved testing service, during conditions which are representative of maximum emissions to verify compliance with Condition 5(b).
- ii. Measurements of VOM and/or particulate matter emissions from specified emission unit(s) shall also be conducted upon reasonable written request from the Illinois EPA in accordance with such request.
- iii. The following methods and procedures shall also be conducted upon reasonable written request from the Illinois EPA. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5
PM <sub>10</sub>	USEPA Method 201 or 201A
Volatile Organic Material	USEPA Method 18, 25 or 25A, as appropriate

- b. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing for VOM and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:
  - i. A description of the planned test procedures.
  - ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.
  - iv. The methodology that will be used to determine the operating rate during the period of testing, e.g., the rate of VOM introduced to the plant.
- c. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the

actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

- d. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized.
- e. The Final Report from testing shall include as a minimum:
  - i. A summary of results.
  - ii. General Information.
  - iii. A detailed description of methodology for determination of the operating rate of the plant, see 11(c)(iv), during the period of testing, with supporting information.
  - iv. Detailed description of operating conditions of the emission unit(s) being tested, including:
    - A. Process information, process rate, e.g. raw material consumption; and
    - B. Control equipment information, i.e. equipment condition and operating parameters during testing.
  - v. Data and calculations.
  - vi. Conclusions.
- 12a. The Permittee shall retain all records required by this permit at the source for at least three years, at a location where the records are readily accessible for inspection by the Illinois EPA.
- b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request, as further specified below.
  - i. The Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source's normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

- ii. The Permittee shall identify any records that it considers to contain information that it would claim as trade secret under Section 7.1 of the Environmental Protection Act. As required by rule to claim material as a trade secret the Permittee shall mark such records trade secret, safeguard them from becoming available to persons other than those selected by the Permittee, and have available an undated claim letter for the records, accompanied by a statement of justification for its claim that the records contain trade secrets. When copies of these records are provided to the Illinois EPA, upon its request, they shall be accompanied by a copy of the claim letter and the statement of justification.
- 13a. With its Annual Emission Statement the Permittee shall report the annual emissions of particulate matter and volatile organic material from the plant with supporting summary activity data and calculations.
- b. If there is an exceedance of the emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance and efforts to reduce emissions and future occurrences.
- 14a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
Telephone: 217/782-5811 Fax: 217/524-4710

- b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
2009 Mall Street  
Collinsville, Illinois 62234  
Telephone: 618/346-5120

15. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois State Implementation Plan, as well as all other applicable local, state and federal requirements.
16. This permit replaces Construction Permit Nos. 94030062, 95090213, 97070022, and Operating Permit No. 94030062.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

ATTACHMENT A

List of Operations in Xanthan Gum Plant

<u>Description</u>	<u>Control</u>
Xanthan Gum Dryers	Turbo Scrubbers-Wet Scrubber
Still (Distillation Columns I & II)	Distillation Column Condensers- Vent Condenser-Wet Scrubber
Screw Press (Food Grade)	Process Equipment-Vent Condenser-Wet Scrubber
Screw Press (Industrial Grade)	Process Equipment-Vent Condenser-Wet Scrubber
DSM Screen (Food Grade)	Process Equipment-Vent Condenser-Wet Scrubber
DSM Screen (Industrial Grade)	Process Equipment-Vent Condenser-Wet Scrubber
4 Drop Tanks	Tank Vent Condenser- Wet Scrubber
North and South Precip. Tanks	Tank Vent Condenser- Wet Scrubber
IPA Still Feed Tank	Tank Vent Condenser- Wet Scrubber
Distilled IPA Tank	Tank Vent Condenser- Wet Scrubber
IPA Make-Up Tank	Tank Vent Condenser- Wet Scrubber
Gum Grinders	Baghouse
Agglomerate Dryer I	Baghouse
Agglomerate Dryer II	Baghouse
Screen/Pack I	Baghouse
Screen/Pack II	Baghouse
Storage	Baghouse

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