

AUGUST 27, 1976

MINUTE ORDER NO. 76-38

PAGE 1 OF 2 PAGES

The Commission, having considered the following Applications for Permit submitted by the following respective firms and having reviewed the staff recommendations and the Summary Reports attached hereto does hereby approve said Applications subject to the conditions contained with the Application, Summary Reports, or amendments thereto, and Subsection 4(d) of the Arkansas Plan of Implementation; provided, however, that the applicant complies with all general terms of the permit and all special terms and conditions to the permit, if any, which are so specified.

APPLICATION FOR PERMIT - INDUSTRIAL FACILITIES

<u>PERMIT NO.</u>	<u>FACILITY & LOCATION</u>	<u>COST</u>
345-A	International Paper Company Russellville, Arkansas	\$ 125,000
349-A	Emerson Electric Company Beaird-Poulan Division Nashville, Arkansas	21,000
351-A	Kirkwood Industries, Inc. Conway, Arkansas	40,000
352-A	Planters Peanut Company Fort Smith, Arkansas	
353-A	CTS of Bentonville Bentonville, Arkansas	5,000
354-A	Best Foods Division- CPC International Little Rock, Arkansas	200,000
355-A	Riceland Foods Helena, Arkansas	10,000
356-A	Potlatch Corporation Warren, Arkansas	40,000
357-A	Bunge Corporation Des Arc, Arkansas	45,000
358-A	Bunge Corporation Clarendon, Arkansas	42,600
359-A	Bunge Corporation Osceola, Arkansas	82,325
360-A	Southern Rendering Company Little Rock, Arkansas	100,000

COMMIS-
SIONERS

[Handwritten signatures and initials over the table rows]

Billy Free
CHAIRMAN

SUBMITTED BY Jarrell E. Southall, Chief DATE PASSED 9/24/76
Division of Air Pollution Control

APPLICATION FOR PERMIT - INDUSTRIAL FACILITIES

<u>PERMIT NO.</u>	<u>FACILITY & LOCATION</u>	<u>COST</u>
361-A	El Dorado By-Products Company El Dorado, Arkansas	76,000
271-A (Modification)	Potlatch Corporation McGehee, Arkansas	4,990,000
319-A (Modification)	Michigan Chemical Corporation El Dorado, Arkansas	185,000

APPLICATION FOR PERMIT - INCINERATOR

<u>PERMIT NO.</u>	<u>FACILITY & LOCATION</u>	<u>COST</u>
272-AI	Nest-Fresh, Inc. Blevins, Arkansas	5,000

The Summary Reports, prepared by the staff, are designed to facilitate the administration of the air pollution control program for the State of Arkansas and, otherwise, for the convenience of the Commission and other interested persons. Copies of the Minute Orders, the Permits, and the Summary Reports are to be attached to the Applications for Permit which are on file in The Department's central office. It is further noted that the approvals of these applications are based upon information contained within the Application for Permit - not the Summary Reports. Nevertheless, the applicant is expected to forthwith notify the Department of any discrepancies found between the two documents.

COMMISSIONERS

[Handwritten signatures and initials]

Billy Fraz SUBMITTED BY Jarrell E. Southall, Chief DATE PASSED 9/24/76
CHAIRMAN Division of Air Pollution Control

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: International Paper Company
Russellville, Arkansas

CSN: 580046

FIRST SUBMITTAL: 08/19/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

International Paper Company has installed a plant to manufacture corrugated containers from roll paper stock. An inner liner is passed through a corrugating roll. The roll of paper is cut to the correct dimensions and then the appropriate sides are glued together. The air used for the transfer of the wastepaper from the operation is treated with fabric filters and returned to the building. The starch silo vent is controlled with a fabric filter. Total particulate emissions for the plant are less than one pound per hour.

ESTIMATED COST: \$125,000 TOTAL PROJECT: \$8,000,000

COMMENCEMENT OF INSTALLATION: 03/01/75

COMMENCEMENT OF OPERATION: 02/01/76

REVIEWED BY: PDD APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 345-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Kirkwood Industries

Conway, Arkansas

CSN: 230044

FIRST SUBMITTAL: 06/28/76

AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Kirkwood Industries of Conway proposes to install a plant for the manufacture of mica rolls and mica plates.

The mica rolls can have either an organic or inorganic binder. Mica and kraft paper rolls are purchased from an outside supplier. The mica and paper rolls are threaded through a machine where they are laminated together within a binder. After the binder has been applied, the roll is cured and the paper removed from the mica. The mica is then rerolled and sent through an oven to dry and then to processing and shipping.

The mica plates are produced from loose dry mica. The dry mica is evenly spaced on a wire belt and a binder is applied to it. The mica sheets are then passed through an exhaust hood and a dryer to remove all excess solvents. The sheets are then cut into plates and sent to processing for shipping.

Predicted emissions are 6.3 pounds of flake silicone and mica, .8 pounds of mica dust, 6.1 pounds of toluol, and 2.8 pounds of ammonia an hour. The toluol and ammonia, emissions are exhausted directly through stacks served by exhaust fans. The flake silicone, mica and mica dust are exhausted through two fabric dust collectors. No mica dust is to be emitted from any uncontrolled emission points.

Conditions: Controls for toluol and ammonia emissions will be installed should they later be found necessary by the staff upon commencement of operation.

ESTIMATED COST: \$40,000

TOTAL PROJECT: \$1,750,000

COMMENCEMENT OF INSTALLATION: 05/17/76

COMMENCEMENT OF OPERATION: 08/01/76

REVIEWED BY: PDD

APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 351-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Emerson Electric Company - Beaird-Poulan Division
Nashville, Arkansas

CSN: 310023

FIRST SUBMITTAL: 05/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Beaird-Poulan Division of Emerson Electric Company proposes to build a plant to manufacture approximately 200,000 chain-saws per year. The plant receives nonferrous castings from Michigan, of which 95% are magnesium castings and 5% are aluminum castings. These rough castings are forwarded into a hand-clean and deburr room, where the die-flash and rough projections on the castings are either chipped or sanded smooth for subsequent machining. The dust collected from the chipping and sanding operation is collected by two wet dust collectors, called rotoclones. The particulate emission from these two rotoclones will be less than one pound per hour.

After a general hand-cleaning and chemical cleaning, the castings are powder coated. Emissions from the powder coating operations are controlled by fabric filters contained within the walls and ceiling enclosing the powder coating area.

ESTIMATED COST: \$21,000 TOTAL PROJECT: \$1,700,000

COMMENCEMENT OF INSTALLATION: June, 1976

COMMENCEMENT OF OPERATION: October, 1976

REVIEWED BY: IHB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 349-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Planters Peanut Company
Fort Smith, Arkansas

CSN: 660214

FIRST SUBMITTAL: 07/22/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Planters Peanut Company has installed a plant for processing shelled peanuts at Fort Smith, Arkansas.

Shelled peanuts are introduced to the process at a dump station from which they are fed to gravity separators for air washing and cleaning. The emissions from the dump stations and gravity separators are controlled by baghouses. The exhaust from the baghouses goes back into the plant.

After air washing, the peanut skins are removed. The dust and skins are collected by bag filters and sent to a pellet mill for the manufacture of animal feed. After blanching, the nuts are dry roasted, cooked in oil, or packaged raw. The exhaust from the oil cookers is controlled by a wet scrubber. The estimated emission rate is three pounds per hour.

The exhaust from vacuum packaging operations is controlled by mist eliminators. The estimated emission is two pounds per hour.

ESTIMATED COST: _____ TOTAL PROJECT: _____

COMMENCEMENT OF INSTALLATION: January, 1976

COMMENCEMENT OF OPERATION: June, 1976

REVIEWED BY: IHB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 352-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: CTS of Bentonville
Bentonville, Arkansas

CSN: 040110

FIRST SUBMITTAL: 07/28/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

CTS of Bentonville proposes to install a facility to manufacture electronic variable resistors.

Metal stampings and paper laminates are purchased from an outside supplier. The metal stampings are punched in a hydraulic press and then plated with either tin, nickel, cadmium, silver or gold. The plating solutions are heated by low pressure steam supplied by a natural gas fired boiler.

Some of the metal stampings are degreased with trichloroethylene. The emissions from this process are recovered by passing the gasses through a condenser. The emissions from the condenser stack are not to exceed one pound an hour.

The flat strips of paper laminate are spray painted with a carbonaceous paint, which consists of lamp black and varnish. The paper strips are passed beneath the spray gun which remains in a stationary position. After spraying, the strips are dried in an oven. The particulates from the spraying operation and from the drying operation are collected in a baffle type filter. Particulate emissions will not exceed trace amounts. Gaseous emissions from the spraying and drying operations are not to exceed seven pounds per hour.

The various components are then assembled and sent to warehousing for shipment.

ESTIMATED COST: \$5,000 TOTAL PROJECT: \$1,000,000

COMMENCEMENT OF INSTALLATION: March, 1976

COMMENCEMENT OF OPERATION: September, 1976

REVIEWED BY: IHB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 353-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Best Foods Division of CPC International
Little Rock, Arkansas

CSN: 600415

FIRST SUBMITTAL: 08/20/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Best Foods Division of CPC International proposes to construct and operate a peanut butter plant in the Little Rock Industrial Park Area. Permit is being applied for under the confidential portion of the Arkansas Air Pollution Control Code, Section 3(c).

Raw materials will be peanuts, salt, sugar, dextrose, refined peanut oil, and a hydrogenated vegetable oil stabilizer. Major process operations include roasting, blanching, sorting, destoning, pulping, mixing, and vacuum cooking.

Process emissions will consist of peanut dust, skins, meal, vaporized oil, and peanut volatiles. Emissions will be controlled by rotoclones (2), cyclone separators (4), a gas-fired afterburner, baghouses (2), and a wet scrubber.

The predicted emissions from all sources will be less than 12 pounds per hour.

ESTIMATED COST: \$200,000 TOTAL PROJECT: \$12,000,000

COMMENCEMENT OF INSTALLATION: 01/76

COMMENCEMENT OF OPERATION: 11/77

REVIEWED BY: JB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 354-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Riceland Foods (Soybean Oil Bleaching Plant)
Helena, Arkansas

CSN: 540013

FIRST SUBMITTAL: 08/23/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Riceland Foods of Helena proposes to install a soybean oil bleaching system at their existing oil extraction plant. The bleaching agents (diatomaceous earth, bleaching clay and filter aids) are added to the vegetable oil under controlled conditions to remove the color bodies and other objectionable materials by adsorption.

The ground bleaching clay is received by trucks of 40,000 pounds capacity once a week. The unloading is done by a pneumatic system into a clay storage tank. The air is then passed through a Mac bag filter and released to the atmosphere. This unloading operation occurs for two hours, once a week. The predicted particulate emissions will be less than one pound per hour.

ESTIMATED COST: \$10,000 TOTAL PROJECT: \$240,000

COMMENCEMENT OF INSTALLATION: _____

COMMENCEMENT OF OPERATION: _____

REVIEWED BY: IHB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 355-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Potlatch Corporation
Warren, Arkansas

CSN: 500001

FIRST SUBMITTAL: 04/06/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Potlatch Corporation proposes an additional bark fired boiler at the Southern Unit in Warren. The boiler will consume 18,000 pounds of bark per hour and produce 30,000 pounds of steam per hour. The particulate emission rate of 20 pounds per hour is to be achieved by the use of multiple centrifugal collectors. Stack testing will be conducted upon start-up to confirm the predicted emission rate. An opacity meter is to be installed to assure proper operation of the boiler.

ESTIMATED COST: \$40,000 TOTAL PROJECT: \$1,071,060

COMMENCEMENT OF INSTALLATION: 05/01/76

COMMENCEMENT OF OPERATION: 09/15/76

REVIEWED BY: CDH APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 356-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Bunge Corporation

Des Arc, Arkansas

CSN: 590016

FIRST SUBMITTAL: 05/18/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Bunge Corporation has instituted an air pollution control program at their Des Arc grain elevator. This facility has a capacity to receive and ship 300 tons per hour. The grain is shipped to the elevator via trucks, and is transferred to barges in the White River.

Enclosed mechanical conveyors are used for all of the transfer operations. Bunge proposes to install a system to collect the fugitive emissions from the truck dump pit, transfer points, etc. through the use of ducting and a fabric filter. The proposed emission rate is less than one pound per hour.

ESTIMATED COST: \$45,000 TOTAL PROJECT: \$70,000

COMMENCEMENT OF INSTALLATION: _____

COMMENCEMENT OF OPERATION: _____

REVIEWED BY: IHB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 357-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Bunge Corporation

Clarendon, Arkansas

CSN: 480029

FIRST SUBMITTAL: 05/18/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Bunge Corporation has instituted an air pollution control program at their Clarendon grain elevator. This facility has a capacity to receive and ship 300 tons per hour. The grain is shipped to the elevator via trucks, and is transferred to barges in the White River.

Enclosed mechanical conveyers are used for all of the transfer operations. Bunge proposes to install a system to collect the fugitive emissions from the truck dump pit, transfer points, etc. through the use of ducting and a fabric filter. The proposed emission rate is less than one pound per hour.

ESTIMATED COST: \$42,600 TOTAL PROJECT: \$62,000

COMMENCEMENT OF INSTALLATION: _____

COMMENCEMENT OF OPERATION: _____

REVIEWED BY: IHB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 358-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Bunge Corporation

Osceola, Arkansas

CSN: 470119

FIRST SUBMITTAL: 05/18/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Bunge Corporation has instituted an air pollution control program at their Osceola grain elevator. This facility has a capacity to receive and ship 300 tons per hour. The grain is shipped to the elevator via trucks, and is transferred to barges in the Mississippi River.

Enclosed mechanical conveyers are used for all of the transfer operations. Bunge proposes to install a system to collect the fugitive emissions from the truck dump pit, transfer points, etc. through the use of ducting and a fabric filter. The proposed emission rate is less than one pound per hour.

ESTIMATED COST: \$82,325 TOTAL PROJECT: \$115,000

COMMENCEMENT OF INSTALLATION: _____

COMMENCEMENT OF OPERATION: _____

REVIEWED BY: IHB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 359-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Southern Rendering Company
Little Rock, Arkansas

CSN: 600027

FIRST SUBMITTAL: 08/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Southern Rendering has completed major remodeling of its Little Rock facility. Modifications of air pollution control systems include (1) negative air enclosure of cooking vessels, (2) scrubbing of room air as well as process emissions and (3) installation of two additional scrubbers.

CONDITION:

Southern Rendering shall discontinue its operations at the Little Rock facility if the staff determines that emissions from said facility creates nuisance conditions after August 31, 1976.

ESTIMATED COST: \$100,000 TOTAL PROJECT: \$1,010,000

COMMENCEMENT OF INSTALLATION: _____

COMMENCEMENT OF OPERATION: 08/76

REVIEWED BY: JBJ APPROVED: JES

RECOMMENDATION: APPROVAL WITH CONDITIONS

ASSIGNED PERMIT NUMBER: 360-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: E1 Dorado By-Products Company
E1 Dorado, Arkansas

CSN: 700020

FIRST SUBMITTAL: 08-76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

E1 Dorado By-Products Company has completed major remodeling of its E1 Dorado facility. This remodeling involved installation of improved cooking equipment and improved housings for maintenance of "negative air" surrounding the cooking vessels. All contaminated air and process streams are routed to existing scrubbers.

ESTIMATED COST: \$76,000 TOTAL PROJECT: _____

COMMENCEMENT OF INSTALLATION: _____

COMMENCEMENT OF OPERATION: August 24, 1976

REVIEWED BY: JB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 361-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Potlatch Corporation

McGehee, Arkansas

CSN: 210036

FIRST SUBMITTAL: 10-24-74

AMENDED: 9-19-75, 12-13-75, 2-19-76, 6-17-76

CASE REFERENCES: _____

SUMMARY:

Permit No. 271-A was issued to Potlatch Corporation for installation of a pulp and paper mill near McGehee. The permit was issued on basis of design criteria. Qualifications to the permit required, among other things, opportunity for public comment once the applicant submitted more detailed information supporting the application.

The applicant submitted required information and opportunity for public comment was given by public notice on July 18, 1976. Information available for public inspection reflected design modifications which resulted after issuance of Permit No. 271-A and which modifications are reflected in Mr. Charles Pottenger's letter of June 15, 1976 (copy attached). These modifications, as represented in Mr. Pottenger's letter, result in a net decrease in atmospheric emissions.

Permit No. 271-A is hereby amended to reflect the design changes summarized in Mr. Pottenger's June 15, 1976 letter.

ESTIMATED COST: \$4,990,000

TOTAL PROJECT: \$150,200,000

COMMENCEMENT OF INSTALLATION: December, 1974

COMMENCEMENT OF OPERATION: November, 1977

REVIEWED BY: CDH

APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: MODIFICATION OF 271-A

COMMISSION MINUTE ORDER NUMBER: _____

Potlatch

Potlatch Corporation

Edinburgh Arcade
6877, Station B
124 Edinburgh Court
Greenville, South Carolina 29606
Telephone (803) 235-1636

RECEIVED

1976

Potlatch

Potlatch Corporation

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6877, Station B
124 Edinburgh Court
Greenville, South Carolina 29606
Telephone (803) 235-1636

RECEIVED

June 15, 1976

JUN 17 1976

Department of Pollution Control & Ecology
8001 National Drive
Little Rock, Arkansas 72209

ARK. DEPT. OF POLLUTION
CONTROL AND ECOLOGY

Attention: Mr. S. Ladd Davies

Subject: Potlatch Corporation
McGehee, Arkansas
Air Pollution Control
Permit Application

Dear Sir:

Potlatch Corporation submitted an Air Pollution Control Permit Application dated April 21, 1976. We request that this letter be attached to that application as supplemental information.

Potlatch submitted its original application, based on feasibility design data, on October 24, 1974. That application resulted in assignment of Permit No. 271-A by the Arkansas Commission on Pollution Control with qualifications as outlined in a Summary Report attached to the Permit dated December 16, 1974.

The April 21, 1976 application describes the design as it will be installed and incorporates the improved emission estimates that can now be made based on detailed design information.

This letter will explain changes in design since the original application and respond directly to the qualifications to Permit No. 271-A.

Design Changes Influencing Air Emissions

Since the original application, Potlatch has increased the nominal design production rate from 400 to 450 tons of paperboard per day. This did not result in any change in equipment selection or predicted emission rates. The original design basis called for 400 tons per day with chemical recovery equipment sized to provide a 7% capacity factor to permit possible inclusion of oxygen bleaching technology and an additional 8% factor to permit "catch up" capability. As the design progressed it'

was decided to normally utilize all available capacity, which resulted in an increase in nominal production rate to 450 tons of paperboard per day.

The original application described a sludge incinerator. The sludge incinerator has been deleted because estimated sludge composition and volumes indicated that auxiliary fuel would be required and large quantities of ash would be generated. Based on energy effectiveness and capital cost considerations, sludge disposal by landfill was adopted. This results in a decrease in mill emissions to the atmosphere as compared to the original application.

The original application described a standby incinerator as a back-up for incinerating odorous compounds from the non-condensable gas disposal system. The back-up incinerator has been deleted. In its place an alkaline scrubber will be installed which will remove 90% of the hydrogen sulfide and methyl mercaptan in the non-condensable gas feed to the kiln. This reduces the potential emission from the kiln and serves to minimize emissions of total reduced sulfur (TRS) compounds in the unlikely event of a kiln outage. As in the case of the sludge incinerator, deletion of the standby incinerator and inclusion of the alkaline scrubber results in a net reduction of atmospheric emissions.

The original application described a non-condensable gas collection system to incinerate the more odorous gases in the lime kiln and a steam stripping system to remove odorous compounds from contaminated condensates. An efficient system has been designed to accomplish treatment of these streams. Condensate stripping will be accomplished using an air stripping column rather than a steam stripping column as originally described. Stripping efficiency will be equal to original proposal, but less energy will be expended to obtain desired results.

The original application indicated that the smelt tank vent stack scrubber would be designed with a collection efficiency of 90%. Potlatch specified to vendors that they supply a scrubber that would provide a collection efficiency of 96.9%. The unit selected is reported to collect 95% at steady state specified conditions. However, due to possible variations in operating conditions, the scrubber vendor will not guarantee collection efficiency. Potlatch predicts collection efficiency will be 87% and assumes a design efficiency of 88%. Potlatch guarantees that the smelt tank vent stack scrubber will meet or exceed collection efficiency required to meet emission rates predicted in the April 21, 1976 application.

All other emission control equipment is as described in the original application.

Predicted Emission Rates

On Page No. 11 of the April 21, 1976 application definitions of potential emission rate, design emission rate, predicted emission rate, allowable emission rate and process weight rate are given. For clarification, the definition of predicted emission rate should be expanded by including the following statement:

The predicted emission rates assume lowest operating efficiency which would be expected to be maintained without prompt corrective action. Normally emission rates are expected to be less than the stated predicted values, but not less than design emission rates.

Table 1 compares predicted emission rates described in Permit No. 271-A to those described in the April 21, 1976 application. In some cases there are significant differences which will be explained below.

Lime Kiln SO₂ Emissions

In the original application and Permit No. 271-A a lime kiln SO₂ emission rate of 510 lbs./hr. was indicated. The best available information, as described in the April 21, 1976 application, indicates that 90% of the potential SO₂ emission will be absorbed by the lime and lime kiln scrubber. This results in a reduction of predicted atmospheric SO₂ emissions from the kiln from 510 lb./hr. to 50 lb./hr.

TABLE 1
 PREDICTED EMISSIONS FROM OCTOBER 24, 1974
 APPLICATION COMPARED TO APRIL 26, 1976 APPLICATION

Source No.	Pollutant & (wt. %)		Predicted Emission Rate, lb./hr.	
			October 24, 1974	April 21, 1976
SN-1 Lime Kiln Stack	CaO	25%	10.4	5.2 - 10.4
	CaCO ₃	75%		
	SO ₂	100%	510 ^a	50
SN-2 Recovery Boiler Stack	Na ₂ SO ₄	100%	81.4	81.4
	SO ₂	100%	508	295 ^b
SN-3 Smelt Tank Vent Stack	Na ₂ CO ₃	100%	14.4	25 - 27
SN-4 Power Boiler Stack	Ash	19%	47.6	39.3
	Carbon	81%		
	SO ₂	100%	380	370
	NO _x	100%	-	138.6
Sludge Incinerator	Particulates		11.7	Deleted

(a) See April 21, 1976 application: Information obtained since original application indicates absorption of 90% of potential lime kiln SO₂ by lime and/or scrubber.

(b) See April 21, 1976 application appendix. 295 lb./hr. SO₂ is maximum estimate.

Recovery Boiler SO₂ Emission

In the original application and Permit No. 271-A a recovery boiler SO₂ emission rate of 508 lb./hr. was indicated. As a result of studies conducted on a similar low odor recovery boiler, operated by Potlatch, this prediction has been reduced to a maximum of 295 lb./hr. Data supporting this estimate is given as an Appendix to the April 21, 1976 application.

Change in Predicted SO₂ Emission Rate

In general, the total mill SO₂ emission predicted in the April 21, 1976 application are 715 lb./hr. versus 1398 lb./hr. estimated at the time of approval of Permit No. 271-A. This 683 lb./hr. reduction in predicted SO₂ emissions is the result of more reliable information relating to emissions from all potential sources.

Smelt Tank Vent Stack Particulate Emissions

The 144 lb./hr. potential particulate emission rate indicated in the original application was found to be inaccurate. Actual potential emission rate is estimated by the recovery boiler manufacturer to be 208 lb./hr. Consequently the predicted particulate emission rate from this source has increased from 14.4 lb./hr. to 27 lb./hr. as described in the April 21, 1976 application. The increase is due to the error in the original estimate of potential emission rate and the use of an 88% collection efficiency scrubber versus a 90% collection efficiency scrubber as described above.

Power Boiler Particulate Emissions

The original application estimated the power boiler to have particulate emission rate of 47.6 lb./hr. This was based on the expected heat input rate of the boiler of 476 million BTU/hr. and the federal regulations which permit 0.1 lb. particulate emission per million BTU heat input. The boiler purchased actually has 462 million BTU/hr. heat input and, therefore, is limited by federal regulation to a maximum particulate emission rate of 46.2 lb./hr. Based on anticipated fuel characteristics the predicted particulate emission rate, described in the April 21, 1976 application, is 39.3 lb./hr.

Change in Particulate Emission Rates

In general, total mill particulate emission rates predicted in the April 21, 1976 application are 158.1 lb./hr. versus 165.5 lb./hr. estimated at the time of approval of Permit No. 271-A. This 7.4 lb./hr. reduction in predicted particulate emission rate is the result of deletion of the sludge incinerator, a more accurate estimate of power boiler particulate emissions, and the inaccurate estimate of smelt tank vent stack emissions used in the original permit application.

Discussion of Qualifications to Permit No. 271-A

- 1a. Potlatch has, by means of this letter and the April 21, 1976 application presented additional information to describe equipment to be installed in the McGehee mill. This equipment will enable Potlatch to comply with Permit No. 271-A as modified by the predicted emission rates described in the April 21, 1976 application. The equipment selected represents the best available technology for the applications described.
- 1b. Potlatch has studied the effect of air emission controls on the process sulfur levels. Emission rates predicted will be obtained with equipment as designed and described in the application.
- 1c. Emission rates will comply with all state and federal emission regulations.
- 2-4. (These qualifications require Department action).
- 5a. Potlatch has proposed a monitoring program in the April 21, 1976 application which is believed to satisfy qualification 5a and requests approval.
- 5b. Potlatch will work with the Department to develop a program which satisfies the Department's request in qualification 5b to "assess the effectiveness of the controls for the removal of reduced sulfur compounds."

Conclusion

Potlatch has designed a new pulp and paperboard mill which utilizes best available technology for the minimization of atmospheric emissions.

The facility, being constructed in Desha County, will incorporate a modern low odor, direct fired recovery boiler fitted with an electrostatic precipitator designed to remove 99.7% of particulate matter from the stack gas. Low sulfur fuel will be used in all oil fired equipment to reduce potential SO₂ emissions and to meet federal regulations for the

power boiler. All combustion processes will be fully instrumented to permit best energy utilization with minimum possible emissions.

The lime kiln will be equipped with a 99.5% design collection efficiency venturi scrubber to minimize particulate emissions.

The non-condensable gas system will collect the more odorous TRS containing gases from process sources and from the condensate stripper system and convey them through an alkaline scrubber to the lime kiln for incineration. The alkaline scrubber will recycle hydrogen sulfide and methyl mercaptan to the caustic plant, further reducing potential emissions and providing an effective method of reducing odor in the event of kiln outage. The kiln will incinerate TRS compounds and absorb 90% of SO₂ formed, resulting in further reduction of sulfur emissions.

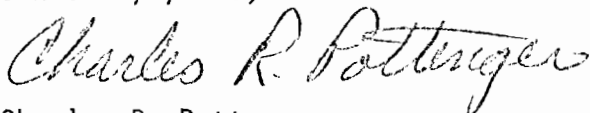
The system being built does comply with the performance stated in the April 21, 1976 Application for Modification to Permit 271-A and the Environmental Protection Agency regulations on "Standards of Performance for New Stationary Sources." It also incorporates existing advances in control technology as required by the Arkansas Air Code.

Potlatch is committed to compliance with Arkansas Air Permit requirements and federal regulations and will operate and maintain control equipment to obtain high control efficiencies.

We believe that the information provided in this letter and in the April 21, 1976 application will enable the Department to issue a permit for operation of this facility without qualification.

We are prepared to discuss this application at any time and request an early response. Thanks.

Sincerely yours,



Charles R. Pottenger
Technical Director -
McGehee Mill

CRP/dd

c.c. W. G. Gray
S. M. Rollinson
W. D. Chandler
D. A. Berry
J. D. Rushton

J. T. Gressette
Cecil Harrell
Department of Pollution
Control & Ecology

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Michigan Chemical
El Dorado, Arkansas

CSN: 700037

FIRST SUBMITTAL: August 25, 1976 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Michigan Chemical Corporation proposes the installation and operation of a sour gas collection and flaring system. This system is to eliminate low level flares presently in use at brine production wells and the emission of hydrogen sulfide from the sour gas stripper located at the applicant's manufacturing facility. Use of the proposed system is intended (1) as a stand-by to the control systems required under Permit No. 319-A and (2) to offer interim air quality improvements.

Approval is hereby granted for installation of proposed system provided that the system is designed and operated to minimize, to the extent practicable, violations of Section 8 of the Air Code, consistent with the nature and purpose of the proposed system.

ESTIMATED COST: \$185,000 TOTAL PROJECT: \$185,000

COMMENCEMENT OF INSTALLATION: -----

COMMENCEMENT OF OPERATION: 03-01-77

REVIEWED BY: CDH APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: Modification of 319-A

COMMISSION MINUTE ORDER NUMBER: _____

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT RELATIVE TO PERMIT APPLICATION

SUBMITTED BY: Nest-Fresh, Inc.
Blevins, Arkansas

CSN: 290037

FIRST SUBMITTAL: 07/20/76 AMENDED: _____

CASE REFERENCES: _____

SUMMARY:

Nest-Fresh, Inc. of Blevins has installed a used, rebuilt Consumat incinerator, Model V-75 P to dispose of 1200 pounds per day of office and canteen supplies and dead chickens. The rated capacity of the unit is 550 pounds per hour for type 0 waste and 330 pounds per hour for type 4 waste. The unit has two primary burners with a capacity of 125,000 BTU/HR and a secondary burner of 250,000 BTU/HR capacity.

ESTIMATED COST: \$5,000 TOTAL PROJECT: \$5,000

COMMENCEMENT OF INSTALLATION: _____

COMMENCEMENT OF OPERATION: _____

REVIEWED BY: IHB APPROVED: JES

RECOMMENDATION: APPROVAL

ASSIGNED PERMIT NUMBER: 272-AI

COMMISSION MINUTE ORDER NUMBER: _____



STATE OF ARKANSAS
DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
8001 NATIONAL DRIVE
LITTLE ROCK, ARKANSAS 72209

501 371-1701 GEN. OFF.
501 371-1136 AIR DIV.

REGULATIONS OF THE ARKANSAS
PLAN OF IMPLEMENTATION FOR AIR POLLUTION CONTROL

SAMPLING AND MONITORING REQUIREMENTS

In accordance with Section 7, Sampling and Monitoring Requirements, of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control, as amended June 27, 1975, the Director of the Department of Pollution Control and Ecology hereby specifies the sampling methods which are to be used to determine the opacity, rate, composition, and/or concentration of emissions from equipment.

A. Visible emissions determinations shall be made using the procedures described in Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources, found in Appendix A, Part 60, Title 40, Code of Federal Regulations, subject to the following:

1. Under those Regulations of the Plan where visible emissions may not exceed a certain opacity except for not more than five minutes in the aggregate in any consecutive sixty minute period, each observation (made at 15 second intervals) shall be deemed to represent the average opacity of emissions for a 15 second period, and more than twenty such observations in any sixty consecutive minute period shall constitute a violation.

2. Under those Regulations of the Plan where the limits on visible emissions are those found in Standards of Performance for New Stationary Sources promulgated by the United States Environmental Protection Agency, the period of observation and the method of data reduction shall be that prescribed in such Standards and in Reference Method 9.

B. Particulate emission rates shall be determined, except as specified below, using the procedures described in the following Reference Methods found in Appendix A, Part 60, Title 40, Code of Federal Regulations:

Method 1 - Sample and Velocity Traverses for Stationary Sources.

Method 2 - Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube).

Method 3 - Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight.

Method 4 - Determination of Moisture in Stack Gases.

Method 5 - Determination of Particulate Emissions from Stationary Sources.

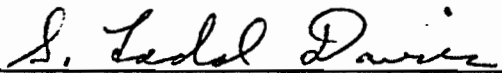
Equivalent or alternate methods of particulate emissions determinations may be approved by the Director, if in his opinion, such equivalent or alternate methods are in furtherance of the purposes of the Arkansas Plan of Implementation, and provided that such methods are traceable to the standard reference methods specified above and that the resulting data yields results which have a consistent and quantitatively known relationship to said reference methods, under the conditions in which the equivalent or alternate method is to be employed.

Additionally, the Director may approve alternate methods in individual cases where the temperature or water content of the existing stack gases is not amenable to determinations in strict conformance with the said reference methods. Approval of equivalent or alternate methods shall not be granted for determinations of particulate emissions from sources regulated by Standards of Performance for New Stationary Sources promulgated by the United States Environmental Protection Agency.

Finally, the Director recognizes that emissions of particulate matter from some equipment regulated by the Regulations of the Plan are limited by the use of cyclones without stacks and straightening vanes. The Director further recognizes that the said reference methods are not adaptable to emissions from such cyclones without first adding a stack of sufficient length and including straightening vanes. The Director recognizes that the addition of stacks and straightening vanes, while improving the collection efficiency of the cyclones, would create additional costs for construction and, possibly, create the need for additional power to overcome the increased back pressure created by the stack and straightening vanes.

In view of the foregoing, the Director hereby authorizes the use of the below described screening procedure on such cyclones in order to determine whether a need exists for the installation of a stack and straightening vanes and further testing using the reference methods. If said screening procedure indicates that particulate emissions are more than 90 percent of the allowable emissions, then the owner or operator of the equipment tested shall install the necessary modifications such that a determination of particulate emissions can be accomplished using the procedures in the reference methods.

The only screening procedure which is authorized on such cyclones is the use of the Automatic Hi-Volume Sampler, Model A 2000, manufactured by Rader Pneumatics, Inc., or the equivalent of such sampler. The equivalent of such sampler includes earlier models of the Rader Hi-Volume Sampler only if the sampler has been modified to automatic operation, including automatic adjustment of the sample flow to isokinetic conditions (100 percent plus or minus 10 percent) at the nozzle and automatic measurement of the gas flow through the sampler. Detailed procedures for the use of such automatic samplers may be prepared by the Chief of the Air Pollution Control Division provided that isokinetic conditions of 100 percent, plus or minus 10 percent, are always required.


S. Ladd Davies, Director
Department of Pollution Control
and Ecology

August 16, 1976