

P 408 531 182
 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED--
 NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to R. D. Herr	
Armstrong World Ind., Inc. P.O. Box 1991	
P.O., State and ZIP Code Pensacola, FL 32589	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date 5/5/87 AC 17-128287	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447 045

SENDER: Complete items 1, 2, 3 and 4

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
 2. Restricted Delivery.

3. Article Addressed to:
 R. D. Herr
 Armstrong World Industries, Inc.
 P.O. Box 1991
 Pensacola, Florida 32589

4. Type of Service:
 Registered Insured
 Certified COD
 Express Mail

Article Number
 P-408 531 182

Always obtain signature of addressee or agent and
DATE DELIVERED

5. Signature - Addressee
 X

6. Signature - Agent
 X *C. Herr*

7. Date of Delivery
 MAY 6 1987

8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Armstrong World Industries, Inc.
P. O. Box 1991
Pensacola, Florida 32589

DER File No. AC 17-128287

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Armstrong World Industries, Inc. applied on December 8, 1986, to the Department of Environmental Regulation for a permit to construct a FMS manufacturing line at their existing facility in Pensacola, Escambia County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit was needed for the proposed work.

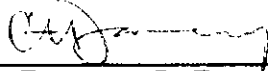
Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit application. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of

the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copies enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

R. D. Herr

J. Preece

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on May 5, 1987.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

R Bruce Mitchell
Clerk

5/5/87
Date

State of Florida
Department of Environmental Regulation
Notice of Proposed Agency Action
on Permit Application

The Department of Environmental Regulation gives notice of its intent to issue a permit to Armstrong World Industries, Inc. to construct a FMS manufacturing line at their existing facility located at 300 South Myrick Street, Pensacola, Escambia County, Florida. The proposed project will emit 37.62 TPY particulate matter and small quantities of the products of combustion of natural gas. The proposed project is subject to the prevention of significant deterioration regulations. A determination of best available control technology (BACT) is required. The annual and 24-hour impact of the net increase in particulate matter emissions are 0.4 and 4.6 ug/m³, respectively.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this preliminary statement. Therefore, persons who may not object to the proposed agency action may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207 at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Regulation
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the Department's final determination.

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
 - (a) The name and address of each agency affected and each agency's file or identification number, if known;
 - (b) The name and address of the petitioner or petitioners;
 - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
 - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
 - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
 - (f) A demand for the relief to which the petitioner deems himself entitled; and
 - (g) Such other information which the petitioner contends is material.

Technical Evaluation
and
Preliminary Determination

Armstrong World Industries, Inc.
Escambia County
Pensacola, Florida

New Ceiling Tile Production Line (FMS)

Permit Numbers:

State: AC 17-128287
Federal: PSD-FL-~~118~~
117

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

May 4, 1987

I. Application

A. Applicant

Armstrong World Industries, Inc.
P. O. Box 1991
Pensacola, Florida 32589

B. Request

On December 8, 1986, Armstrong World Industries submitted an application for a construction permit for a new production facility to be constructed at the Pensacola plant. The application was considered complete on February 26, 1987, when additional information on the proposed project was received.

C. Project Description and Location

The project will occur at Armstrong World Industries facilities located at 300 S. Myrick Street in Pensacola, Escambia County, Florida. The UTM coordinates of this site are zone 476 E and 3364 N.

Armstrong World Industries, Inc. is proposing the construction and operation of a new production line at their existing Pensacola, Florida plant. The existing plant manufactures various types of ceiling tile which are used in buildings, homes, offices, etc. The new product line, referred to as "FMS", will process four types of mineral wool ceiling boards which have been formed, rough cut, and prime painted during prior operations at the plant. The unfinished boards will be fed from a stack by a vacuum feeder into a machining cell where they will be cut to finished size, and the surfaces and edges will be profiled to the desired shape and contour. Two coats of paint will then be applied in succession to the boards, through two sets of paint booths/dryers/coolers. Four types of finished products will be produced by the "FMS" line. Maximum process weight rate will be approximately 44,217 lbs/hr, including paint application to the boards.

The "FMS" process will have seven (7) points of air emissions (Exhaust Nos. 74, 75, 75A, 76, 77, 77A, 78). The feeder and machining cell emissions (particulate matter (PM)) will be controlled by a fabric filter (baghouse).

A total of four (4) identical paint booths will be installed in two pairs. Only one (1) paint booth within each pair will be used at any time. The non-operating paint booth within each pair will be prepared for the next color product. The paint booth will be similar to a Binks Dynaprecipitor water wash spray booth, but will be customized by adding an air supply fan.

The natural gas-fired dryers will be used to dry the freshly painted boards. Each dryer (two total) will be rated at 4×10^6 Btu/hr heat input. Maximum natural gas consumption will be 4,000 dscf/hr.

In conjunction with start-up of the FMS process line, the existing No. 4 paint line and No. 5 paint line will be shutdown.

The proposed FMS process line, by virtue of its increase in particulate matter (PM) emissions, will constitute a major modification under federal and State of Florida Prevention of Significant Deterioration (PSD) regulations.

II. Rule Applicability

The proposed projects, referred to as "FMS" in Pensacola, Florida, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The project is located in an area designated attainment for particulate matter (17-2.420(2)) and unclassifiable for sulfur dioxide (17-2.430(2)).

The project is located in an area designated as PSD for the air pollutant particulate matter (17-2.450(1)) and for the air pollutant sulfur dioxide (17-2.450(2)).

Armstrong World Industries, Inc. is a major facility (17-2.100) because allowable emissions exceed 250 TPY for particulate matter.

The project is subject to review under 17-2.500, PSD, because the increase for particulate matter (PM) exceeds the significant emission rate. The emission limits will be established by BACT determinations.

III. Technical Evaluation

The existing Armstrong facility is a major stationary source since its potential to emit PM is greater than 250 TPY. The proposed FMS process line will increase PM emissions from the Armstrong facility by 37.62 TPY.

The shutdown of the No. 4 paint line and No. 5 paint line will provide a contemporaneous PM emission offset. The net increase in emission of 31.89 TPY for PM, which exceeds the significant emission rate of 25 TPY for PM; therefore, PSD review is required for PM. The net increase in emissions for all other criteria pollutants are below the respective significant

emission rates, and these pollutants are, therefore, exempt from PSD review as shown in the table below.

Summary of Net Increase in Emissions

Pollutant	Increase Due To Proposed FMS Process Line (TPY)	Decrease Due To #4 and #5 Paint Line Shutdown	Net Increase In Emissions (TPY)
Particulate Matter	37.62	5.73	31.89
Sulfur Dioxide	0.02	-	0.02
Nitrogen Oxides	3.22	-	3.22
Carbon Monoxide	0.64	-	0.64
VOC	0.26	-	0.26

The proposed PM control technology is utilization of a fabric filter (baghouse) on the feeder/machining cell operation (Exhaust # 74) and use of high efficiency water-wash systems on the paint booths (Exhaust #75, 75A, 77, and 77A). This combination will limit maximum PM emissions from the facility to 9.33 lbs/hr, consisting of 8.61 lbs/hr from the baghouse and 0.68 lb/hr from the paint booths. These emission levels are less than the process weight table allowance of 24.5 lbs/hr.

The baghouse to be employed by Armstrong on the FMS process will have 0.015 gr/acf for the maximum outlet grain loading.

The technology Armstrong is proposing for control of PM emissions from the paint booths is the water-wash system.

IV. Air Quality Analysis

The proposed construction and operation of the FMS manufacturing line will result in a significant increase in particulate matter (PM) emissions, i.e., greater than 25 tons/yr. The projected net increase, considering the emissions decrease of particulate matter from shutting down the No. 4 and 5 paint lines, is 32 tons/yr. Emission increases of other pollutants are less than their prescribed significance levels and, therefore, are not subject to PSD review. An air quality analysis is required for particulate matter. This analysis consists of:

- o An analysis of existing air quality;
- o A PSD increment analysis;
- o A National and Florida Ambient Air Quality Standards (AAQS) analysis;
- o An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality impacts; and
- o A "Good Engineering Practice" (GEP) stack height evaluation.

The analysis of existing air quality generally relies on preconstruction ambient air monitoring data collected in accordance with EPA-approved methods. The PSD increment and AAQS analyses depend on air quality modeling carried out in accordance with EPA guidelines.

Based on these required analyses, the Department has reasonable assurance that the proposed project, as described in this permit and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any PSD increment or ambient air quality standard. A discussion of the modeling methodology and required analyses follows.

Modeling Methodology

The EPA-approved Industrial Source Complex Short-Term (ISCST) air quality model was used by the applicant to predict ambient ground-level concentrations of particulate matter. This model is appropriate for use in areas of flat or gently rolling terrain. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. It also allows for the separation of sources, building wake downwash, and various other input and output features. Both screening and refined modeling were performed.

The applicant first completed screening modeling for the four years of available meteorological data. This data consisted of hourly surface observations from Pensacola airport for the years 1972-1975, and upper-air data for this same period from Bootheville, Louisiana. A rectangular receptor grid (16 by 14), with a grid spacing of 100 meters centered near the new sources, identified the locations where ambient concentrations were determined. Some additional receptor locations were placed along the property boundaries. The emission rates and stack parameters of the new and modified sources are listed in Table I. In the screening modeling several of these sources were combined to conserve costs.

The applicant, using the model, determined the maximum ambient concentration levels resulting from emissions from the proposed new FMS line, itself, and from the proposed new FMS line minus the emissions from the (to be shut down) Nos. 4 and 5 paint lines, i.e., the net emissions increase. Based upon this modeling, the days on which the highest, second-highest concentration occurred for both the net emissions increase and the new FMS line itself were remodeled. The refined modeling considered all the sources from the proposed FMS line and the shut down of the Nos. 4 and 5 paint booths.

Analysis of Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review. In general, one year of quality assured data using an EPA reference, or the equivalent monitor must be submitted. Sometimes less than one year of data, but no less than four months, may be accepted when Department approval is given.

An exemption to the monitoring requirement can be obtained if the maximum air quality impact, as determined through air quality modeling, is less than a pollutant-specific de minimus concentration. In addition, if current monitoring data already exist and these data are representative of the proposed source area, then at the discretion of the Department these data may be used.

The predicted maximum air quality impacts from the net emissions increase of particulate matter is less than the defined de minimus level of 10 ug/m^3 . Therefore, preconstruction monitoring of this pollutant by the applicant is not required. The Department, however, operates several particulate monitors in the Pensacola area. One of these monitors is located 2.9 kilometers from the Armstrong facility. The most recent year of data (1986) at this monitor shows an annual average concentration of 38 ug/m^3 and highest and second-highest 24-hr concentration of 87 ug/m^3 and 78 ug/m^3 , respectively.

PSD Increment Analysis

The Armstrong facility is located in an area where the Class II PSD increment apply. Any increase in emissions of particulate matter or sulfur dioxide which would also increase ambient ground-level concentrations of these pollutants must show through modeling that these concentration increases are less than the allowed increments. In the case of Armstrong the net emissions increase (i.e., the sum of the increment consuming emissions from the new FMS manufacturing line and the increment expanding emissions reduction from the Nos. 4 and 5 paint lines) results in both the annual and 24-hour concentration increases to be less than the defined significance levels. As such, no threat to the increments is anticipated.

A review of the particulate emitting sources in the Pensacola area shows that no major increment consuming sources are near the Armstrong facility.

Ambient Air Quality Standards Analysis

The net emissions increase of particulate matter will result in an insignificant (less than 1.0 ug/m^3 , 24-hour average) increase in ambient ground-level concentrations. Since measured

concentrations near the Armstrong facility are well below the ambient standards, no further modeling analysis was required by the Department. Table II summarizes the predicted ambient concentrations.

Additional Impacts Analysis

No effects on soils or vegetation is anticipated. The increased ambient concentrations are predicted to be less than significant and total ambient concentrations near Armstrong should remain well below the State particulate standards which are equivalent to the national secondary standards. Secondary standards were established to protect public welfare-related values such as soils and vegetation.

The nearest Class I area is located greater than 100 kilometers from Armstrong. At that distance no impact by Armstrong is anticipated.

Employment will not significantly change as a result of the construction and operation of the new sources. No growth-related air quality impacts should occur.

The Good Engineering Practice (GEP) stack height for the new FMS lines is calculated to be 75 feet. The actual stacks will be less than or equal to this height. The modeling completed in support of the application considered the effects of aerodynamic downwash.

IV. Conclusion

Based on the data submitted by Armstrong World Industries, Inc., the Department has concluded that the emissions from the new FMS production line at their existing Pensacola, Florida plant can comply with the state and federal regulations if the sources are designed, built, and operated properly. The General and Specific Conditions in the proposed permits will assure compliance of the new sources with the air pollution control regulations.

Table I
 Armstrong World Industries
 Source Emission Rates and Stack Parameters

Source	Relative Location		Particulate Emissions	Stack Height	Stack Gas Temp.	Stack Exit Velocity	Stack Diameter
	X(m)	Y(m)	(g/s)	(m)	(K)	(m/s)	(m)
<u>FMS Line</u>							
Feeder Machining Cell Baghouse	-130.	-20.	1.085	22.9	294	21.40	1.37
Intermediate Paint Booths	-155.	15	0.030	10.7	294	10.17	0.86
Dryer	-161.	15	0.003	10.7	533	11.00	0.41
Finish Paint Booths	-169.	20.	0.055	10.7	294	10.17	0.86
Dryer	-165.	10.	0.003	10.7	533.	11.00	0.41
<u>No. 4 Paint Line</u>							
Paint Booth	-130.	8.	-0.079	8.5	294.	9.10	1.09
Dryer	-140.	12.	-0.038	8.5	461.	7.30	0.38
Cooler	-151.	15.	-0.025	8.5	294.	10.70	0.98
Feeder	-109.	3.	-0.043	10.7	294.	11.5	0.46
<u>No. 5 Paint Line</u>							
	-155.	2	-0.00025	8.5	294	5.80	1.07

(1) Building wake downwash was included assuming a building height of 9.1 meters and a building width of 202.0 meters.

Table II
 Armstrong World Industries
 Projected Air Quality Impacts

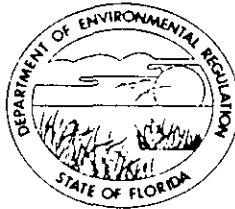
Pollutant and Averaging Time	Proposed FMS Line (ug/m ³)	Net Emissions Increase (ug/m ³)	Significant Impact Level ug/m ³
PM			
Annual	0.9	0.4	1.0
24-hour (2)	8.3	4.6	5.0

(1) Includes shutdown of Nos. 4 and 5 paint lines.

(2) Highest, second-highest concentration.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

PERMITTEE:

Armstrong World Industries, Inc.
P. O. Box 1991
Pensacola, Florida 32589

Permit Number: AC 17-128287
Expiration Date: June 30, 1989
County: Escambia
Latitude/Longitude: 30° 24' 19" N
87° 15' 00" W
Project: To Construct and Operate
a New Product Line, "FMS"

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the construction of a new product line consisting of (7) new air emission sources to be associated with "FMS" process.

Construction shall be in accordance with the attached permit application unless otherwise stated in the General and Specific Conditions herein.

Attachments:

1. Application to Construct an Air Pollution Source, DER Form 17-1.202(1).
2. C. H. Fancy's letter dated January 7, 1987.
3. Armstrong World Inc.'s letter dated February 24, 1987.

PERMITTEE:
Armstrong World Industries, Inc.

Permit Number: AC 17-128287
Expiration Date: June 30, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforceable action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.

PERMITTEE:
Armstrong World Industries, Inc.

Permit Number: AC 17-128287
Expiration Date: June 30, 1989

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Armstrong World Industries, Inc.

Permit Number: AC 17-128287
Expiration Date: June 30, 1989

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in department rules and Florida Statutes after reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards.

14. The Permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE:
Armstrong World Industries, Inc.

Permit Number: AC 17-128287
Expiration Date: June 30, 1989

GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The maximum outlet particulate matter (PM) grain loading shall not exceed 0.015 gr/acf from the feeder/machining cell baghouse exhaust, as determined by EPA Method 5 (FAC Rule 17-2.700).
2. Northwest District shall be notified in writing 15 days in advance of any compliance test to be conducted on this source.
3. Compliance tests shall be performed at 90-100% of the maximum proposed process rate of 44,217 lbs/hr.

PERMITTEE:
Armstrong World Industries, Inc.

Permit Number: AC 17-128287
Expiration Date: June 30, 1989

SPECIFIC CONDITIONS:

4. Compliance tests, in accordance with rule 17-2.700, FAC, shall be submitted to DER's NW District within 45 days after completion of the test.

5. After satisfactory completion of the initial compliance test, a visible emission tests indicating no visible emission (5% opacity) may be substituted in lieu of a particulate stack test, where the source is equipped with a baghouse (FAC 17-2.700)(1)(d)(6.)).

6. Ninety (90) days before the expiration of this permit, a complete application for an operating permit shall be submitted to the NW District office. The permittee may continue to operate in compliance with all terms of this construction permit until its expiration date or the issuance of an operating permit. The Department may extend the expiration date of this permit as authorized by Rule 17-2.210, FAC.

7. All applicable rules of the Department, including design limitations specified in the application, shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction (Section 17-4.07(1), FAC).

8. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provision in section 17-2.610(3), FAC.

9. Visible emissions from any part of the process shall not be greater than 5% opacity as demonstrated in accordance with DER Method 9, (Rule 17-2.700(6)(a)9., FAC).

10. Particulate matter emission rate shall not exceed 9.33 lbs/hr.

11. Total process input rate shall not exceed 44,217 lbs/hr.

12. The maximum natural gas consumption shall not exceed 4,000 scf/hr.

13. This source shall be allowed to operate up to 8064 hr/year.

PERMITTEE:
Armstrong World Industries, Inc.

Permit Number: AC 17-128287
Expiration Date: June 30, 1989

SPECIFIC CONDITIONS:

Issued this _____ day of _____, 19__

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

_____ pages attached

Best Available Control Technology (BACT) Determination
Armstrong World Industries, Inc.
Escambia County

The applicant plans to construct a new production line at their existing facility in Pensacola. The facility manufactures various types of ceiling tile. The new product line, referred to as "FMS", will process four types of mineral wool ceiling boards which have been formed, rough cut, and prime painted during prior operations at the plant.

The existing Armstrong facility is a major stationary facility since its potential to emit is greater than 250 tons per year. The installation of the FMS line will add seven (7) new air emission sources to the facility. In conjunction with the start-up of the FMS process line, two existing paint lines (#4 and #5) will be shutdown.

The net particulate emissions increase from the FMS process line and the existing paint lines shutdown will be 31.89 tons per year. This annual increase exceeds the 25 tons per year significant emission increase defined in 17-2.500(2)(e)(2) FAC; thus requiring a PSD review and hence a BACT determination for the requested action.

The particulate emissions will be generated primarily by a feeding and machining process in which the unfinished ceiling boards are fed from a stack by a vacuum feeder into a machining cell where they will be cut to finished size, and the surfaces and edges will be profiled to the desired shape and contour. A lesser amount of particulate emissions will be attributed to the paint booths and dryers. The particulate emissions associated with the dryers are due to the combustion of natural gas. These emissions are minimal and will not be considered in the BACT analysis.

Review Group Members:

This determination was based upon comments received from the applicant and the Stationary Source Control Section.

BACT Determined by DER:

Source	Emission Limitation/Strategy
Feeder/machining cell	Fabric filter (baghouse) with maximum emissions rate not to exceed 0.015 gr/acf.
Paint booths	Water wash spray and 5 percent opacity

BACT Determination Rationale:

The BACT determined by DER is consistent with the BACT proposed by the applicant. The BACT proposed by the applicant represents the best available control available for the feeder/machining cell and the best practical control for the painting operations, which contribute minimally to the total particulate emissions.

The air quality impact of the proposed allowable emissions has been analyzed. Atmospheric dispersion modeling has been completed and used in conjunction with an analysis of existing air quality data to determine maximum ground-level ambient concentrations. Based on these analyses, the Department has reasonable assurance that the proposed FMS process line, subject to these BACT limitations, will not cause or contribute to a violation of any PSD increment or ambient air quality standard.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E. BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Recommended by:

C. H. Fancy, P.E.
Deputy Bureau Chief, BAQM

Date

Approved by:

Dale Twachtman, Secretary

Date