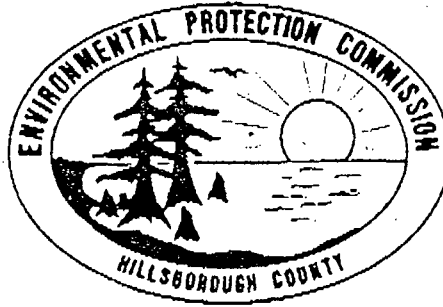


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November 13, 1990

CERTIFIED MAIL # P 259 764 127

Mr. Barry Andrews  
Bureau of Air Regulation  
Florida Department of Environmental  
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Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: DER File No. AC29-181096 (Alumax Cast House No. 2)

Dear Mr. Andrews:

Please be advised that I have reviewed the Department's Technical Evaluation and Preliminary Determination and proposed permit. As a result of my review, I offer the following comments:

Technical Evaluation and Preliminary Determination

III.3 Facility Category: The Department reports that particulate matter (PM) emissions are in the order of 8.30 TPY and that an increase in actual emissions of approximately 19.8 TPY can be expected as a result of the addition of the new cast house. A review of our files indicates that PM emissions are more in the order of 1.23 TPY based on the 1988 (1.65 tons) and 1989 (.81 tons) AOR's and the definition of actual emissions as specified in Rule 17-2.100(3). In addition, the Department has neglected to account for the PM emissions resulting from the increase in natural gas usage in the extrusion operations (A029-161797).

Prior to issuing the construction permit, the Department needs to re-evaluate the net increase in actual emissions to insure that New Source Review has not been triggered.

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IV. Project Description: The Department states that the "facility is planned to operate at no more than 70.5% of full annual production (i.e.,  $66.0 \times 10^6$  lbs./yr.)". First, does the Department intend to limit the entire complex (facility by State definition) to 70.5% of it at full capacity or just the new cast house? Second, by facility, does the Department mean only the new cast house or the entire complex? Third, is full annual production  $66.0 \times 10^6$  lbs./yr. or  $93.6 \times 10^6$  lbs./yr.?

IV.I Description of Future Facility: At this point in time, the permittee and the Department have agreed to allow the construction of the new cast house without going through the requirements of PSD and NSR-Nonattainment Areas based solely on a federally enforceable limitation on the capacity of the new cast house. In 1993, following the addition of controls on VOC emissions, the Department will relax the limitation on the cast house capacity without requiring the permittee to undergo either PSD-NSR and/or NSR-Nonattainment Areas.

It is the opinion of the Environmental Protection Commission of Hillsborough County that such a path would be in violation of Rules 17-2.500(2)(g) and 17-2.510(2)(d)5, and that the Department in doing so may be circumventing the rules and regulations established to protect the public's health and safety.

We feel that the public and the permittee would be better served by following the rules and requiring the VOC controls once the cast house capacity limitation is relaxed.

V. Rule Applicability: Paragraph 5, 17-2.500 should be 17-2.520.

The Department needs to state the applicability of Rules 17-2.500(2)(g) and 17-2.510(2)(d)5, regarding any future relaxation of the federal enforceable limits contained in the permit.

Paragraph 7, the Department needs to clarify this finding to specify that modeling was based on total maximum allowable emissions and what rule these emissions are based.

The Department needs to state that particulate matter emissions are regulated by F.A.C. Rule 17-2.610.

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VI Emission Limitations: Table 2 - The Department should not list the actual emissions of the existing facility at 8.30 TPY. The 1988 and 1989 AOR's indicate actual emissions of 1.23 TPY. Additionally, the Department needs to clarify how actual emissions for the proposed facility were determined (i.e., Actual = Allowables or Actual = Potentials) in accordance with the definition of actual emissions.

Table 3 - The Department needs to specify that the allowable PM emissions are based on Rule 17-2.610 since 17-2.520 does not provide the Department with the authority to set emission limitation more stringent than the rules.

#### Draft Permit

Emission Limits: The Department has taken a very close look at each source associated with the new cast house and set very specific conditions in order to insure that the requirements of PSD and NSR Nonattainment Areas are not triggered. However, since the authority to set emission limits at levels more stringent than the Rules specify, is not available under 17-2.520, we recommend that the Department take the following approach to setting limits in the permit:

1. This permit is issued pursuant to the requirements of Section 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements, Florida Administrative Code (F.A.C.), since volatile organic compound (VOC), particulate matter (PM) and PM10 emissions are less than 40, 25 and 15 tons per year, respectively.

(Comment: This condition sets the maximum allowable emissions from the facility expansion thus allowing the Department and permittee the flexibility to negotiate/set emission rates on each source.)

2. In order to insure compliance with Specific Condition No. 1, the maximum allowable emissions of volatile organic compounds and particulate matter from the sources authorized to construct by this permit shall not exceed .92 and 18.18 tons per year, respectively. These emissions shall be allocated as follows:

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*Modified*

Source	PM		VOC	
	lbs./hr.	TPY	lbs./hr.	TPY
T-Ingot Preheater	.02	.07	.02	.07
2-Melting Furnaces	8.78 9.99 ✓	13.35	.23	.70
Homogenization Furnace	.04	.14	.05	.15
Natural Gas Combustion	.28	.87	---	---
Dross Baghouse	1.72 ✓	3.75	---	---
Totals	12.05	18.18	.30	.92

(Comment: This condition can replace Specific Conditions Nos. 1 thru 3 of the draft permit and can tie the entire expansion [paint lines and cast house] together.)

3. Visible emissions from the No. 2 cast house and the sources shall not be equal to or greater than 20 percent opacity (Rule 17-2.610(2)(a), F.A.C.).

(Comment: The proposed 5% limit [Specific Condition No. 5] is not supported by rule.)

4. This facility <sup>(is exempt and no 2)</sup> is exempt from the requirements of Section 17-2.650, Reasonably Available Control Technology, F.A.C., as demonstrated by the permittee, based on total maximum allowable particulate matter emissions of 28.11 tons per year from the entire facility [Rule 17-2.650(2)(b)2., F.A.C.].

(Comment: This condition sets the basis for the particulate matter emission cap found in Specific Condition No. 4.)

(Comment: Specific Condition No. 6 relates to the AAC's of chlorine and sets the values at 15 ug/m<sup>3</sup> (8hr) and 3.6 ug/m<sup>3</sup> (24 hr). The Department should consider the facts about chlorine before setting an ambient level. To start, long term health effects from low level exposure to chlorine are nonexistent, the OSHA level is a nuisance level, the odor threshold is .2 to .4 ppm, we use chlorine to sterilize our drinking water which we inject routinely, and we swim in pools with higher levels of chlorine than the proposed AAC's. It is felt that the condition is unwarranted and that reasonable assurances have been provided regarding the ambient impact. The odor prohibition shall be effective in controlling chlorine emissions. Emergency procedures and handling requirements would better serve the public.

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5. Pursuant to the construction application, the T-Ingot preheater, 2-melting furnaces and the homogenization furnace shall be fired on natural gas only.

(Comment: This condition along with the opacity and odor conditions will control SO<sub>2</sub>.)

(Comment: Specific Condition No. 9 is appreciated.)

Compliance Determination: The Department should specify a testing time (i.e., 60 days after completion of construction).

(Comment: Specific Condition No. 10 is acceptable; however, language should be added to allow the operating permit to waive the stack test [17-2.700(3)(d)] after the initial testing on the Dross baghouse.)

(Comment: Specific Condition No. 11, the Department should specify the observation period [60 minutes] for the Method 9.)

(Comment: Specific Condition No. 12 is acceptable.)

(Comment: Specific Condition No. 13 is not needed. The law allows 20% opacity and the use of natural gas, in most cases, will represent both BACT and LAER.)

(Comment: Specific Condition No. 14, is this 90 to 100% of the designed maximum rates or 70.5% of that rate? Please clarify.)

(Comment: Specific Condition No. 15 is acceptable.)

Operating Rates: The Department and the permittee have negotiated hard and long to insure that the requirements of PSD and NSR-Nonattainment Areas are avoided. This portion of the permit is extremely important to insure that all the conditions negotiated are federally enforceable.

6. The No. 2 cast house shall be authorized to operate hrs./day, 7 days/week and 52 weeks/yr. at a rate equal to or less than 70.5% of the maximum designed annual production rate of 47,383.57 tons/year. *D.K.*

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(Comment: Specific Condition No. 7 allows continuous operation of the facility (i.e., No. 2 cast house) yet is silent on the requirement to run at a reduced rate in order to avoid the requirements of PSD and NSR-Nonattainment Areas. This rewording is very clear and enforceable.)

(Comment: Specific Condition No. 8 appears to allow the No. 2 cast house to operate at full annual production for any 24 hour period. In order to insure that the requirements of PSD and NSR-Nonattainment Areas are not triggered, the Department needs to either reduce the process rates or reduce the allowable hours of operation. We recommend process rates.)

(Comment: Specific Condition No. 16 should also include language that requires the permittee to log and record actual daily raw material and natural gas usage rates and that this information be made available upon request.)

Rule Requirements: Specific Conditions Nos. 17 thru 21 are acceptable.

(Comment: Specific Condition No. 2 should be expanded to advise the permittee that 3 operating permits will be issued (T-Ingot preheater/cast house, 2-melting furnaces and homogenization furnace.)

The permitting of the expansion of this facility has been very detailed and most of my comments were probably answered already. I hope that our input will help both the Department and permittee.

If you have any questions please feel free to contact me at (813) 272-5530.

Sincerely,

*Darrel Graziani*

Darrel Graziani  
Chief, Air Permitting Section

bb

cc: Bill Thomas, FDER - SW District  
Bob Baker, P.E., Baker Environmental Engineering