KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

KA 124-97-03

MEMORANDUM

TO: John Reynolds, FDEP

FROM: John Koogler, Ph.D., P.E.

DATE: August 27, 1998

SUBJECT: IMC-Agrico Company (New Wales)
Multifos Plant Production Increase
DEP File No. 1050059-024-AC, PSD-FL-244

This is a follow up to your conversation with Pradeep Raval on August 24, 1998 regarding the above referenced project. The following information is attached to provide the Department with reasonable assurance on several issues that were discussed.

1. Compliance with the kiln input rate limits will be demonstrated using a Ramsey scale. The scale is accurate to within 0.5 percent and the readings are continuously recorded. Information on the scale is provided in Attachment 1.

2. A caustic solution spray scrubber will be installed for additional pollution control on Kilns A and B, as requested by FDEP, as a good faith gesture by IMC-Agrico. The design caustic flow rate will be 6 gallons per hour (50 percent caustic solution) with 100 gallons per minute liquid flow rate to each kiln scrubber. As the production rates of the existing kilns are often limited by the fan capacity, a duct spray system is proposed to minimize pressure drop.

One concern with the proposed sprays is the potential for entrainment of the solution with the stack effluent. Operational experience may require other scrubbing techniques to be investigated. In any case, no changes would be made to the proposed system without FDEP approval. Information on the spray scrubbers is provided in Attachment 2. It is expected that the emission reductions realized from the installation of the spray scrubbers will be used for production rate limit refinements for Kilns A and B upon completion of construction.

3. It is our understanding that all the current permit conditions for the existing Kilns A and B will be incorporated into the proposed permit. The most practical way of incorporating these permit requirements would be by reference. However, if FDEP decides to include them verbatim, we have no objection.

4. The requested design fluoride emission control efficiency for the new Kiln C air pollution control system will be met using a crossflow pond water scrubber (calculated by FDEP to be 99.7 percent efficient) followed by a caustic scrubber (95 percent design control efficiency from manufacturer). Consequently, the resulting combined design control efficiency would be 99.9+ percent.

If you have any questions, please call Pradeep Raval or me.

JBK:par
encl.

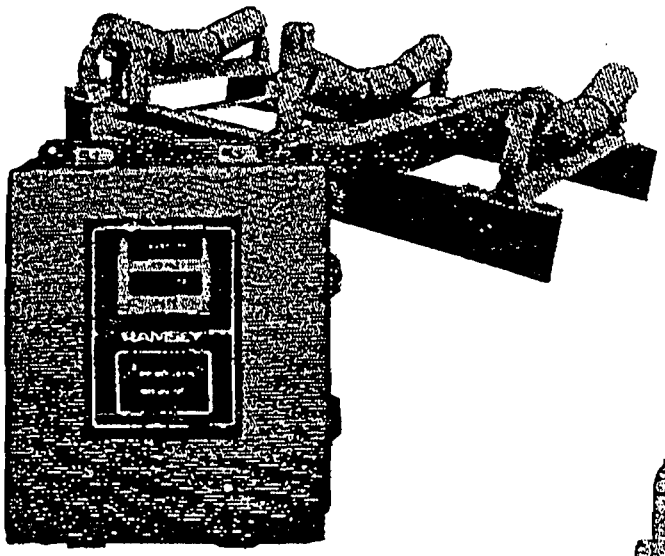
c: C. D. Turley, IMC-Agrico

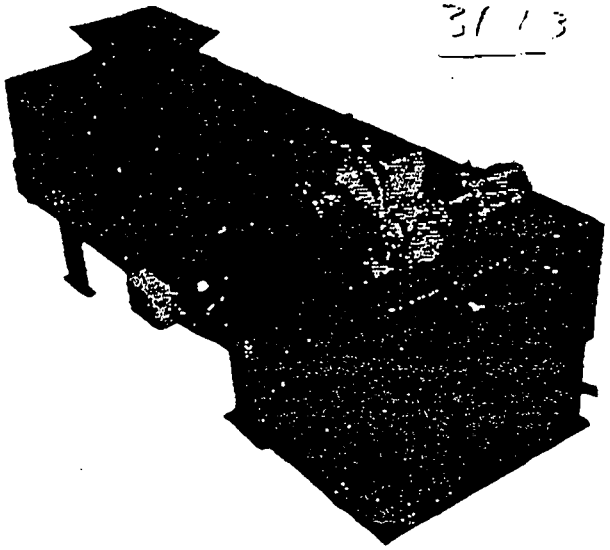
ATTACHMENT 1

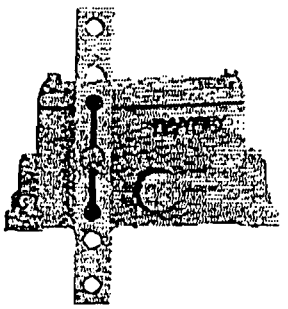
INFORMATION ON WEIGH SCALE

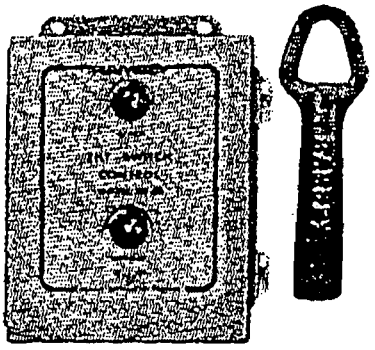
RAMSEY

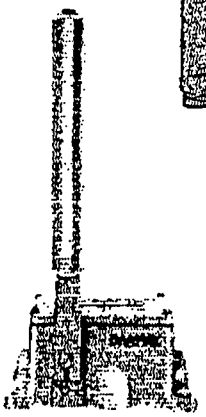
3113



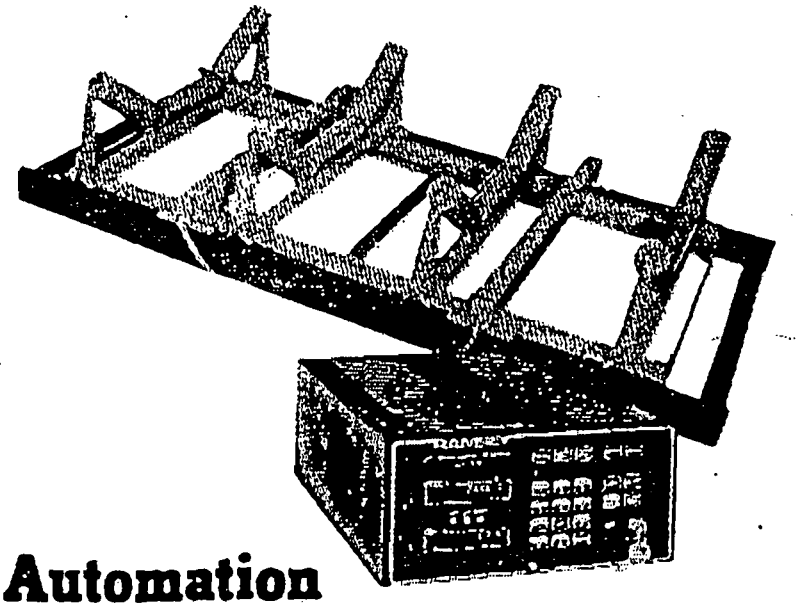








INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS



Instrumentation and Automation for the Process Industries

CHAPTER 4.0

SYSTEM CALIBRATION

4.1 GENERAL

4.1.1 Your Ramsey Series 10-20A Belt Scale System is capable of accurate weighing, provided that it is installed, calibrated, operated, and maintained in complete accordance with the instructions contained in this manual.

4.1.2 This section of the manual pertains solely to the calibration of the system: (1) Initial calibration immediately following system installation; and (2) All subsequent calibration of the system.

4.1.3 The accepted methods of belt scale calibration are:

(1) Material test in which material is pre-weighed or post-weighed on an acceptable weighing standard.

(2) Electronic calibration.

(3) Roller calibration chain test.

(4) Static weight test.

No single method of calibration is necessarily optimum for all belt scale installations. Each method has its own advantages and disadvantages. Presumably your Ramsey belt conveyor scale system has been supplied with the calibration equipment best suited for your specific application.

4.2 ACCURACY

Ramsey Series 10-20A Belt Scale System Model 10-20 Weighbridge with 10-201 Integrator and 60-12 Speed Sensor.

4.2.1 On factory approved installations, Ramsey warrants that the total Series 10-20A Belt Scale System will weigh and totalize with an error not to exceed ½ of 1 percent of TEST LOAD at flow rates between 50 and 100 percent of scale system capacity.

TEST LOAD is defined as:

(1) at least three (3) circuits or revolutions of the belt and

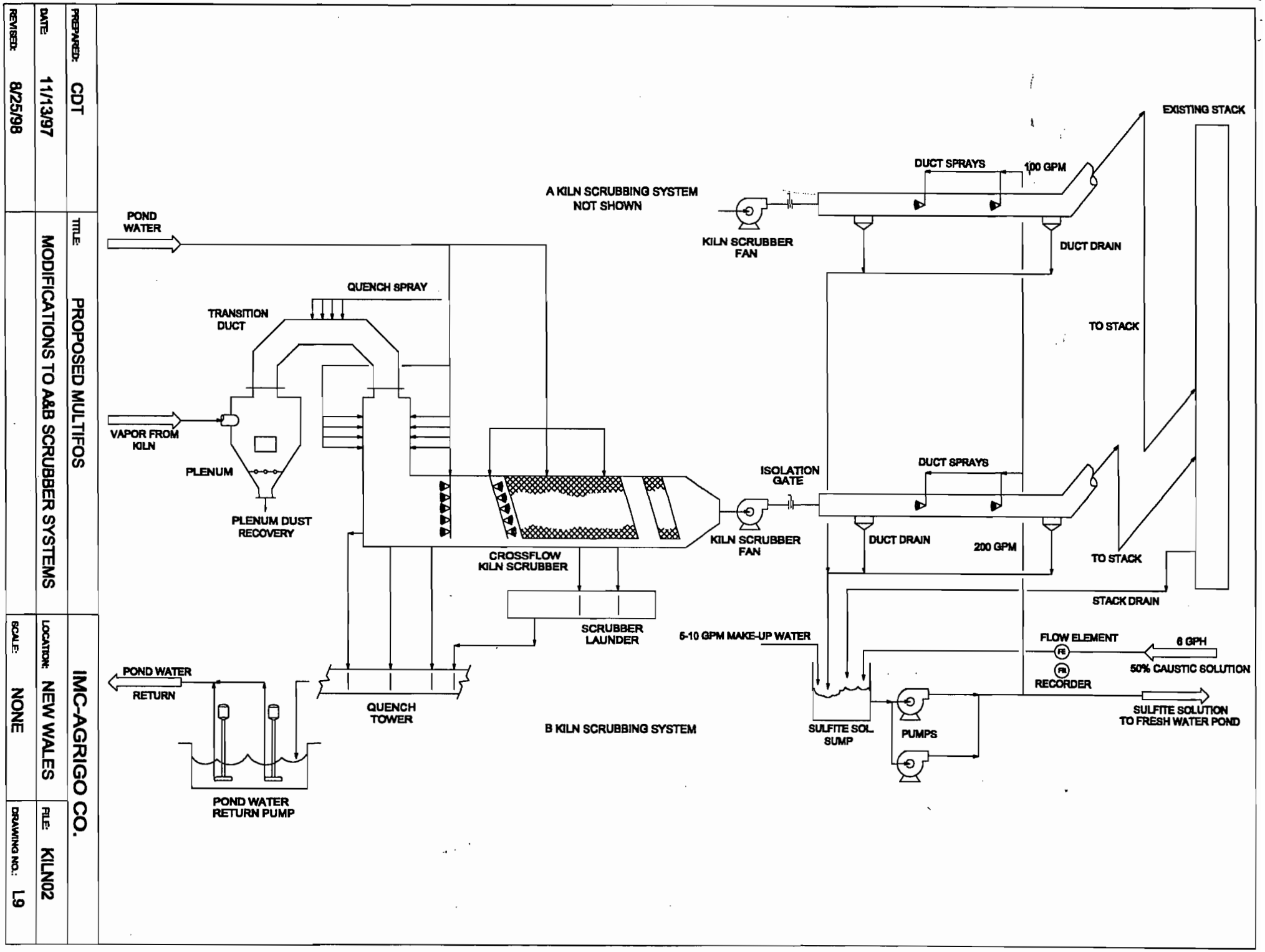
(2) at least 500 counts on the Model 10-201 Integrator and

(3) at least six (6) minutes running time.

These TEST LOAD conditions prevail regardless of the method of testing; i.e., use of material test, electronic calibration, roller calibration chain, or static test weight.

ATTACHMENT 2

INFORMATION ON SPRAY SCRUBBER



PREPARED: CDT	TITLE: PROPOSED MULTIFOS		
DATE: 11/13/97	MODIFICATIONS TO A&B SCRUBBER SYSTEMS		
REVISED: 8/25/98			
SCALE: NONE	LOCATION: NEW WALES	IMC-AGRIGO CO.	
DRAWING NO.: L9	FILE: KILN02		

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PROJECT 124-97-03

FAX TRANSMITTAL FORM

TO: John Reynolds
Al Linero

FAX NO.

FROM: Pradeep Raval

DATE: 8/28/98 SENT BY: PR

The text being transmitted consist s of 8 page(s) PLUS this one. If you do not receive all of the pages or if there are difficulties with this transmission, please call (352) 377-5822.

REMARKS: Info to help finalize permit for Multifos. Original sent by regular mail.

Regards, PR

P.S. Hope the tooth is feeling better.

IMC AGRICO

August 27, 1998

Mr. John Reynolds
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Multifos Plant Production Increase
FDEP File No. 1050059-024-AC, PSD-FL-244
New Wales Plant

Dear Mr. Reynolds:

This is a follow-up to your conversation with Pradeep Raval on August 24, 1998 regarding the above-referenced project.

Information is attached to provide the Department with reasonable assurance on several issues that were discussed.

We look forward to your e-mail on the updated draft permit provisions at your earliest convenience. We appreciate your efforts to issue the final permit as soon as possible.

Sincerely,

P. A. Steadham
Chief Environmental
Services - Concentrates

Enclosures

xc: J. Koogler (K&A)

cwk
pas98

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KA 124-97-03

MEMORANDUM

JOHN B. KOOGLER CERTIFICATE No. 12925 STATE OF FLORIDA REGISTERED ENGINEER

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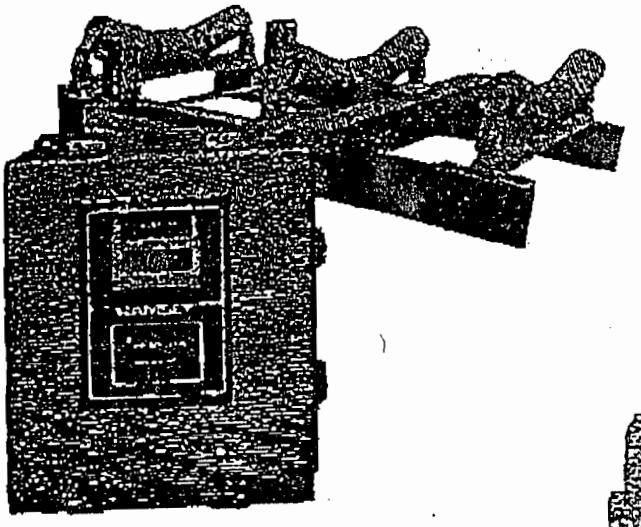

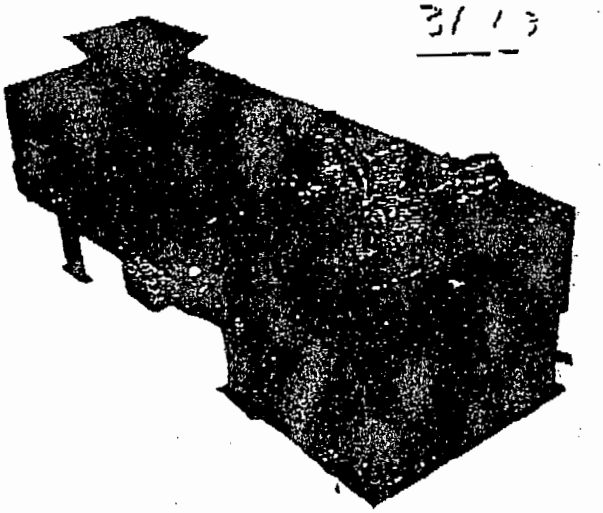

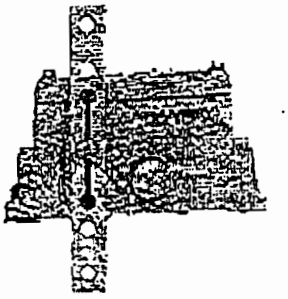

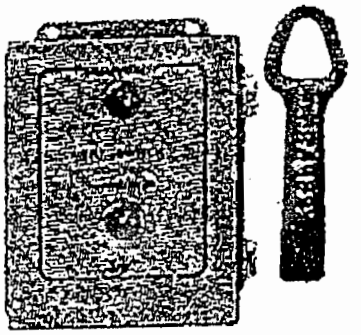

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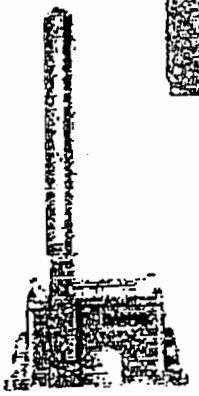

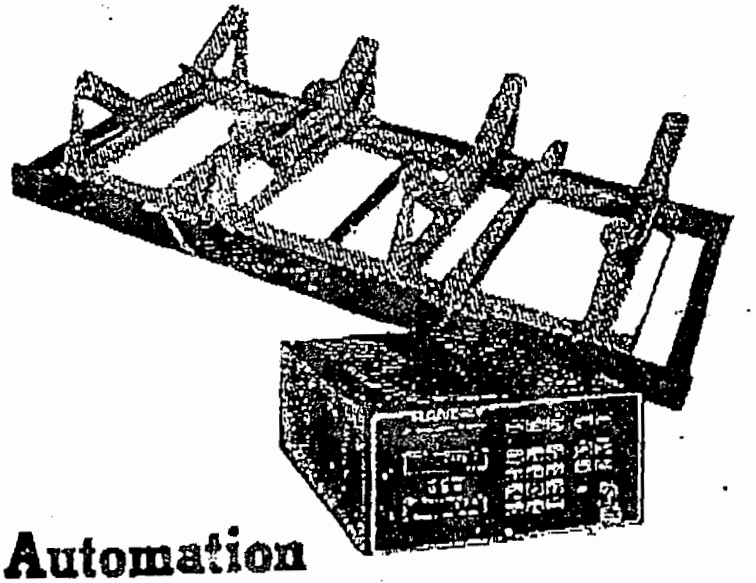

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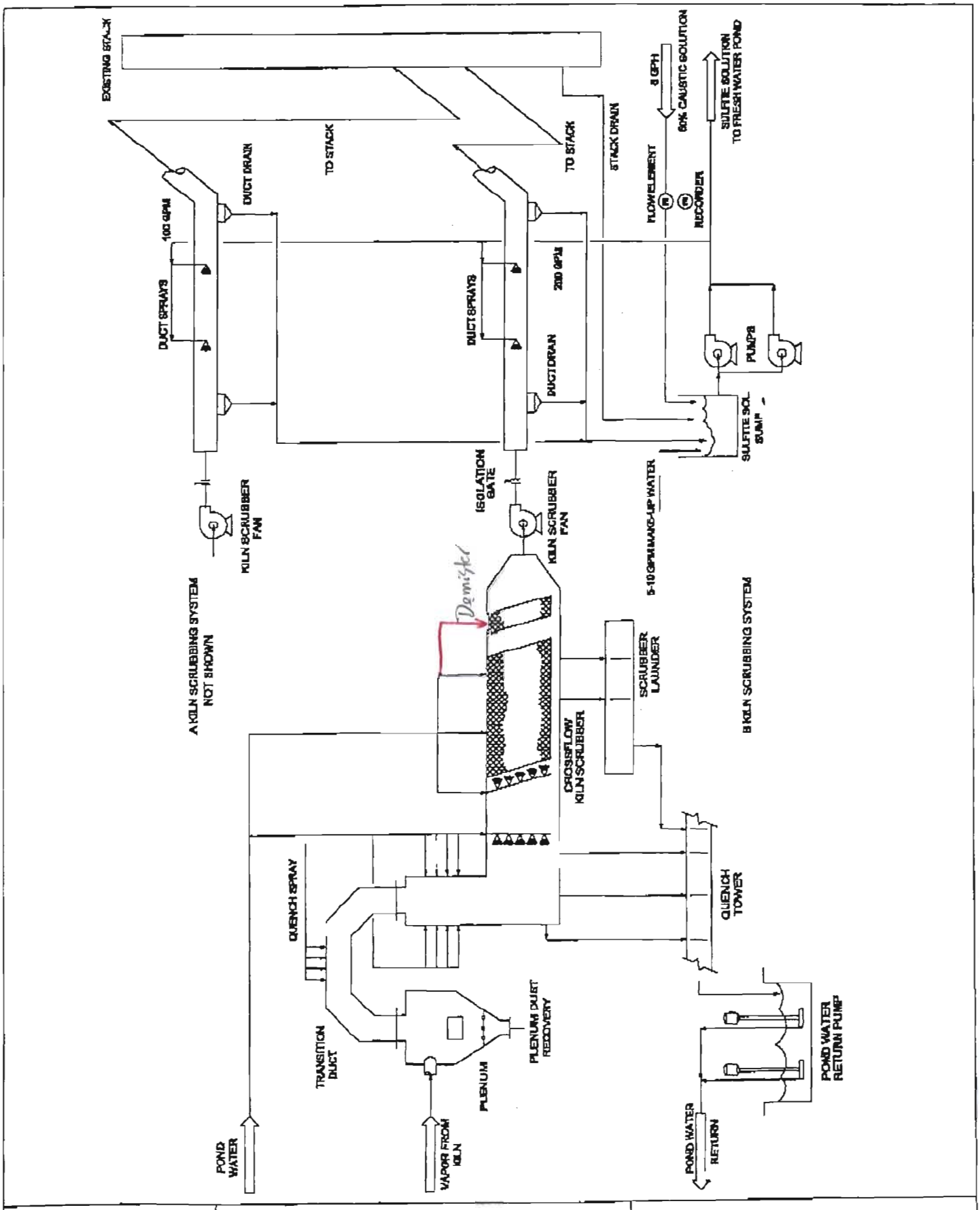

PREPARED: CDT	TITLE: PROPOSED MULTIFOS	IMC-AGRIGO CO.	
DATE: 11/13/97	MODIFICATIONS TO A&B SCRUBBER SYSTEMS	LOCATION: NEW WALES	FILE: KILN02
REVISED: 8/25/98		SCALE: NONE	DRAWING NO.: L9