

File ICD-A/Baton Rouge 10/26

# MEMORANDUM

DATE October 22, 1971

SUBJECT: LOUISIANA AIR CONTROL  
COMMISSION

TO: Mr. C. R. Walbridge

Attached we are submitting for your review an inquiry from the Air Control Commission along with our proposed answer.

We are enclosing a copy of the final revision of the "Regulations of the Air Control Commission" booklet.

Please advise your approval and/or recommendations.

*not enclosed*  
P. B. Cornell  
P. B. Cornell, Manager  
Baton Rouge North Works

FPT:ew

Attach.

cc: Mr. P. N. Shellenberger  
Mr. O. J. Parr  
Mr. R. E. Mumford

TDK

OCT 27 1971

*Called Stocker 10/29/71*  
*He is going to redo letter*  
*IVW.*

Industrial Chemicals Division

**ALLIED CHEMICAL CORPORATION**

P.O. Box 271, Baton Rouge, Louisiana 70821

(504) 356-3341

Mr. Gus Von Bodungen, P.E.  
Louisiana Air Control Commission  
Louisiana State Office Building  
New Orleans, Louisiana 70160

*relatively  
Kept at a reduced li.*

Dear Mr. Von Bodungen:

We acknowledge your inspection report dated August 9, 1971 of the Baton Rouge North Works by Mr. Ledet and yourself and the request for a more specific schedule for improvement with progress reports.

Specific plant areas referred to in your report are problems we recognize. As you know, the soda ash operation is very old, and until recently, phasing out of the operation was a definite possibility. For this reason, maintenance and attention on the soda ash operation was ~~limited to a minimum~~. However, the business picture has since changed and production rates are being increased. As a result of this improved economic picture, the maintenance program has been expanded to upgrade equipment for increased production. Concurrent with this program, emphasis is being placed on improved dust control. It must be recognized that our soda ash product is essentially a dust and very difficult to contain in various stages of manufacturing. Improvements in dust control have been made over the years and such improvements will continue in the future.

*See attached*

A monthly sampling program was started on September 1 and covers twenty-five air sample stations strategically located throughout the plant. This program is a continuation and expansion of the one started last spring, but temporarily discontinued due to federal deadlines on water effluents required to meet the Corps of Engineer's application for permits on July 1 and October 1, 1971. The monthly program will provide sufficient laboratory data to develop an air profile of our plant. The profile will establish and identify problem areas where an improvement plan can be implemented.

Chlorine odors in various parts of the plant associated with short range operational problems have been detected from time to time; however, we know of no specific reason for such odors at the time of your inspection. Further testing will be required to pinpoint the problem.

In order to establish a specific time table for further improvements in various areas, we feel our sampling program will help identify the problems so that appropriate corrective plans can be made.

Please be assured of our continued cooperation and we expect to communicate with you in the near future relative to our program.

Very truly yours,



P. B. Cornell, Manager  
Baton Rouge North Works

FPT/RMT:ew

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JOHN E. TRYGG, TECHNICAL SECRETARY

LOUISIANA AIR CONTROL COMMISSION

Louisiana State Office Building  
P.O. Box 60630  
NEW ORLEANS 70160

August 9, 1971

Mr. P. B. Cornell, Manager  
Baton Rouge North Works  
Industrial Chemicals Div.  
Allied Chemical Corporation  
P. O. Box 271  
Baton Rouge, Louisiana 70821

Dear Mr. Cornell:

An inspection was performed on the Allied Chemical Corporation North Works at Baton Rouge, Louisiana on Monday, March 1, 1971 by Mr. Henry Ledet and the writer. Excerpts from the inspection report are attached.

We appreciate the courtesy and cooperation extended by Mr. A. J. LaVine during our visit.

We recognize the fact that Allied Chemical has an air control program at this plant. As described in the excerpts of the inspection report and Item 6 D of your revised Emission Inventory Questionnaire a number of improvements have no definite time schedule listed.

We recognize that Allied Chemical is striving to solve the air control problems at the North Works. We request that you provide us with a more specific schedule for the improvements and that you provide us with progress reports of your efforts.

Very truly yours,

*Gus Von Bodungen*  
Gus Von Bodungen, P. E.  
Assistant Chief, Air Control Section  
Louisiana State Department of Health

RECEIVED  
BATON ROUGE  
NORTH WORKS

AUG 11 '71

GVB:jad  
Enc.

cc: Mr. Henry Ledet, S. E. Regional Office  
East Baton Rouge Parish Health Unit

P.B.C.

AUG 11 1971

ASI-PR 0004209

### Summary

A summary of this inspection indicates that the overall maintenance in the soda ash and caustic plants is not as good as other Allied facilities and even other processes at this location. There are numerous dust emissions from soda ash handling and the lime kilns. As mentioned earlier in this report this area is the old part of the plant. Allied was just getting active in sampling at this plant and Mr. Sylvest advised he was expanding their measurements of suspended particulate and dust fall. There are considerable chlorinated hydrocarbons being emitted from the VCM plant. Allied has a plan to reduce these but no definite time was stated for installation.

I noticed chlorine odors in various areas of the plant, more so than the average well maintained chlorine-caustic plant. I don't know the concentrations involved. On subsequent visits, I plan to concentrate more on the chlorine processes.

There is a program of improvement of this plant. Some of the items have definite completion target dates, others are general (next 5 years). We should evaluate their program and strive for definite dates in some of the nebulous areas.

EXCERPTS OF INSPECTION PERFORMED ON MONDAY, MARCH 1, 1971

ALLIED CHEMICAL CORPORATION NORTH WORKS BATON ROUGE, LOUISIANA

Soda Ash

The primary sources of visible emissions are various process areas in the Soda Ash Plant. Allied manufactures soda ash by the Solvay process. In this process the raw materials are limestone, coke, ammonia and brine. This particular installation is very old (1935). Our visit occurred a week or two after the Enjay explosion. Some of the broken windows and damaged corrugated metal were a result of the explosion. Some of the run down condition of the structures was obviously older than that.

Dust is emitted from the four lime kiln stacks, from various transfer points in conveyor systems for the soda ash, the carbonating column and the light ash dryers. There was evidence of numerous dust spills in the soda ash conveyor systems. It is hard to say how much of the dust gets off the Allied property. Allied has enough suspended particulate in the air that they can not meet our Regulations. In addition their emissions are obviously in excess of our emission standards. We were informed by Mr. LaVine that numerous improvements are scheduled or presently in process. The degree of improvement remains to be seen.

Chlorine - Caustic

Allied manufactures chlorine by the electrolytic process. Allied has an old cell room and a newer installation. Allied uses the Hooker diaphragm cell for production of chlorine and caustic. Hydrogen from the old plant is vented. Hydrogen from the newer plant is cooled and used as boiler fuel or is used in the vinyl chloride monomer plant. The chlorine cells in the new plant use lead for electrical contact. The lead is recovered from depleted cells by melting. Allied also has a tinning furnace for tinning copper bars. No data was available on emissions from these furnaces.

In the Hooker cell chlorine caustic process the caustic obtained is weaker than the desired shipping concentration of 50% NaOH. The weak liquor is concentrated by a triple effect evaporator.

At the present time chlorine residues from the chlorine gas cooling tower condensate are collected in the sewer system and neutralized with soda ash in a pond near the river. Mr. LaVine stated that a chlorine stripper would be installed for this chlorine but no specific schedule was provided.

Vinyl Chloride Monomer Plant

Vinyl chloride monomer is manufactured by cracking ethylene dichloride. The ethylene dichloride is manufactured by direct chlorination of ethylene. The ethylene is supplied by Allied's Geismar plant. There are various chlorinated hydrocarbons vented from this plant. Mr. LaVine stated that these emissions would be reduced by condensing some of the vapors. There was no specific schedule mentioned for this activity.