ILLINOIS POLLUTION CONTROL BOARD
December 20, 1973

ENVIRONMENTAL PROTECTION AGENCY COMPLAINANT	)	
v.	)	PCB 73-37
NALCO CHEMICAL COMPANY RESPONDENT	)	

LEE CAMPBELL, ASSISTANT ATTORNEY GENERAL, in behalf of the ENVIRONMENTAL PROTECTION AGENCY
GEORGE R. HOOPER, ATTORNEY, in behalf of NALCO CHEMICAL COMPANY

OPINION AND ORDER OF THE BOARD (by Mr. Harder)

This action comes to us on the amended complaint of the Environmental Protection Agency alleging violations of Section 9 (A) of the Environmental Protection Act by discharging contaminants, as defined in Section 3 (d) of the Act in excess and in violation of that allowed by Rule 3-3.111 of the Rules and Regulations Governing the Control of Air Pollution (Air Rules). Hearings were held on March 30, 1973, and August 29, 1973, which were preludes to a hearing on October 15, 1973, where Complainant and Respondent presented for the record a Stipulation and Proposal of Settlement.

Complainant alleged in its complaint that:

Respondent is a Delaware corporation having a place of business at 4001 West 71st Street, Chicago, Illinois, which is a chemical manufacturing facility.

Respondent operated a cracking catalyst process (Process #1) until January 19, 1973, which manufactured silica alumina catalysts which discharged aluminum oxides and silica oxides to the atmosphere. These oxides are particulate matter as defined by the Air Rules. This process was operated on or about July 1, 1970, and continued every day of operation until January 19, 1973, so as to allow discharges into the atmosphere of Illinois from the "Swenson Wet Scrubber" which served Spray Dryer #3 in excess and in violation of that which is allowed by Rule 3-3.111 of the Air Rules.

Respondent operates a Specialty Catalyst Process (Process #2) which manufactures alumina base metal moly catalysts. Process #2 discharges contaminants consisting of hydrated aluminum oxides to the atmosphere, which are defined as particulate matter in the Air Rules. Process #2 was operated from on or about July 1, 1970, and continued every day of operation until November 17, 1972, so as to allow discharges or emissions of particulate matter into the atmosphere of Illinois from a "Swenson Wet Collector," which served spray dryer #2, in amounts in excess of and in violation of that which is allowed by Rule 3-3.111 of the Air Rules.

Respondent operates a Katalco process which manufactures copper zinc catalysts (Process #3). Process #3 discharges contaminants consisting of copper oxides, nickel oxides, and aluminum oxides to the atmosphere. These oxides are particulate matter as defined in the Air Rules. Process #3 was operated on or about July 1, 1970, and continued every day of operations until March 15, 1972, so as to cause or allow discharges or emission of particulate matter into the atmosphere of Illinois from a "Buell electrostatic precipitator" in violation of and excess of that allowed by Rule 3-3.111 of the Air Rules.

Respondent's discharges and emissions are such as to cause an unreasonable interference with the enjoyment of life and property of persons residing in and driving through the area surrounding the facility and is thus a violation of Section 9 (a) of the Act.

The facts presented are based on an agreed stipulation pursuant to a settlement agreement between the parties. The Board finds as follows:

Respondent is a corporation engaged in the manufacturing of chemical catalysts which are sold primarily to other industries for use in manufacturing other products.

Respondent operates their facility at 4001 W. 71st Street, Chicago, Illinois, and has done so since 1941.

Process #1: This process was operated from some time prior to July 1, 1970, until the middle of January 1971. It manufactured silica alumina catalyst which was used as a cracking catalyst in the oil refining industry.

While this process was in use, Spray Dryer #3 was served by the "Swenson wet collector" and this discharged "contaminants" into the atmosphere consisting of alumina and silica.

During August of 1971, tests were conducted by the Department of Environmental Control of the City of Chicago to determine particulate emissions from Spray Dryer #3 of Process #1. These tests indicated emissions of particulates as follows:

Test No. 1	23.6 lbs/hr	0.06 g/scf

Test #2	Interrupted in process	0.03 g/scf
Test #3	26.1 lbs/hr	.07 g/scf
Test #4	24.3 lbs/hr	.07 g/scf

These emissions were not alleged by the city to be in violation of their limitations. The city's limits were .10 g/scf.

These test results were submitted to the Environmental Protection Agency to support an operating permit for Process #1 on Sept. 29, 1972. On November 16, 1972, Respondent's calculations were submitted to the Agency indicating Spray Dryer #3 had a process weight rate of 22,000 lbs/hr with measured emissions of 23.6 lbs/hr. Rule 3-3.111 of the Air Rules allows emissions of a unit with a process weight rate of 22,000 lbs/hr not to exceed 20.4 lbs/hr.

On December 29, 1972, the Agency denied Respondent a permit because the process was discharging contaminants above those allowed by the Air Rules. Respondent received a letter to this effect on Jan. 2, 1973. Also on Dec. 29, 1972, Respondent publicly announced it would discontinue the use of Process #1. The process was shut down on Jan. 19, 1973, and later the equipment was dismantled.

Process #2: This process has been in operation since July 1, 1970. It manufactures alumina base moly catalysts. Spray Dryer #2 of this process discharges hydrated alumina oxides into the atmosphere. From July 1, 1970, to Nov. 15, 1972, Spray Dryer #2 was equipped with a Swenson Wet Collector. The City of Chicago's Department of Environmental Control made stack tests on the abovementioned dryer during August, 1971. The results are as follows:

Test 1	0.18 g/scf
Test 2	0.22 g/scf
Test 3	0.29 g/scf
Test 4	0.29 g/scf

This amount of discharge was alleged by the city to be above the amount allowed for this type of emissions. The city's test results when converted to lbs/hr are as follows:

Test 1	42.30 lbs/hr
Test 2	55.55 lbs/hr
Test 3	66.85 lbs/hr
Test 4	71.58 lbs.hr

The permissible state limit is 13.7 lbs.hr. In 1970 Respondent's test showed this process in compliance with both state and city limits. Respondent requested and the city granted a grace period from enforcement so that Respondent could complete an engineering study and develop a control program. This control program consisted of dismantling the Swenson collector and installing an electrostatic precipitator.

Respondent submitted a permit application for the construction and operation of this system, but the permit was denied by the Agency because of Respondent's error of putting data for the Swenson collector in the application instead of projected emission data for the electrostatic precipitator. Based on this new application, the Agency granted Respondent the permit requested on July 27, 1972.

The electrostatic precipitator was put into service on November 15, 1972, at a cost to Respondent of $350,000.

Respondent ran tests on Process #2 on November 29, 1972, the results of which showed for a process weight of 12,290 lbs/hr particulate emissions were 3.76 lbs/hr. The maximum emissions allowed by the Air Rules are 13.7 lbs/hr.

The stipulation shows that Respondent had the stack tested by Aqua Systems Corporation, a subsidiary of Commercial Testing & Engineering Company, on February 12, 1972. Respondent's answer in this matter, along with Aqua's report attached to the answer, shows the test date is February 12, 1973, and the Board so finds. This test showed particulate emissions from the stack at 1.855 lbs/hr.

Process #3: At Respondent's plant #2, since prior to July 1, 1970, and continuing to date, Katalco has operated a process known as the Katalco Process (Process #3). The process manufactures a low temperature shift catalyst and a CRG catalyst. They both cannot be manufactured on the process at a single time. They will alternate production over several months.

Flash Dryer K-FD-1 of Process #3 discharges contaminants as follows: copper oxide, nickel oxide, and aluminum oxide into the atmosphere of Illinois. During the period from July 1, 1970, to March 14, 1972, Flash Dryer K-FD-1 was equipped with collection equipment consisting of two cyclones and a Buell electrostatic precipitator.

In August of 1971 the Department of Environmental Control of the City of Chicago made stack tests on the stack to which the Flash dryer was attached, the results of which were:

Test 1	.13 g/scf
Test 2	.12 g/scf
Test 3	.17 g/scf

These results were above the City's limit of .10 g/scf.

Respondent had run its own tests on the stack on three prior occasions with results as follows:

	Test A	Test B
7/27/70	0.083 gr/scf	0.060 gr/scf
1/15/71	0.049 gr/scf	0.084 gr/scf
2/26/71	0.101 gr/scf	0.091 gr/scf

These tests indicated that process #3 was in compliance with the city's limit.

Respondent proposed to install an additional power pack to the control equipment on Process #3 which was expected to reduce emissions 50 percent.

Respondent's application for a permit to construct the new power pack indicated that Respondent was emitting 7.5 lbs/hr with the limit set by Rule 3-3.111 of the Air Rules at 5.1666 lbs/hr for a process weight of 2830 lbs/hr.

The power pack was installed and connected by March 14, 1972, and Respondent ran stack tests which showed emissions at .88 lbs/hr. The product involved at the time of testing was the low temperature shift catalyst. The Agency rejected the permit application then but with new data submitted granted the permit on August 15, 1972.

On February 14 and 15, 1973, this process was tested by Aqua Systems. The results of this test showed emissions of 3.209 lbs/hr compared to the limit set by Rule 3-3.111 of 5.166 lbs/hr. The product run during this test was the CRG catalyst.

The parties have reached a settlement agreement wherein Respondent agrees to pay a civil penalty in the amount of $5,000 if the stipulation is approved by the Board, and that shall be the entire disposition of the case.

The Board's role as an affirmative instrument for effectuating the policy of the Act makes it mandatory that only the Board can approve a settlement of a pending case on the merits (Environmental Protection Agency v. G.A.F. Corp., PCB 72-50).

The Board favors disposition of cases by stipulation and settlement if it determines that to do so will serve the purposes of environmental protection. Costly litigation where it can be avoided should be avoided. Money spent on hearings could well be spent on compliance. The Board will look favorably upon settlement agreements that provide an adequate record for our determination of the case. Here we have such a situation. The Board accepts the stipulation as its finding of fact and finds that Respondent violated Section 9 (A) of the Act for the abovementioned period. The Board also finds that Respondent has brought its operation into complete compliance with Rule 3.3111 which can only be considered a benefit to the environment. Our prime goal is the protection of the environment, and not to punish corporations. The Respondent has shown a good faith and successful effort in bringing his plant into compliance. The Board finds the agreed penalty of $5,000 is equitable.

This Opinion constitutes the findings of fact and conclusions of law of the Board.

ORDER

IT IS THE ORDER of the Pollution Control Board that:

Respondent shall pay to the State of Illinois the sum of $5,000 within 35 days from the date of this Order. Penalty payment by certified check or money order payable to the State of Illinois shall be made to: Fiscal Services Division, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, certify that the above Opinion and Order was adopted by the Board on the 20th day of December, 1973, by a vote of 5 to 0.

Christan L. Moffett