## ILLINOIS POLLUTION CONTROL BOARD May 9, 1986

MOBIL CHEMICAL COMPANY,	)	
Petition	er, )	
v.	)	PCB 83-166
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	) ) )	
Responde	ent. )	

OPINION AND ORDER OF THE BOARD (by B. Forcade):

This matter comes before the Board on a May 24, 1985, Motion for Relief from Final Order by Mobil Chemical Company Mobil seeks retroactive modification of a variance granted on August 22, 1984, from certain water quality standards found at 35 Ill. Adm. Code 302.212 (ammonia nitrogen and unionized ammonia) and 302.208 (fluoride, total dissolved solids and sulfate) for an outfall at its DePue facility. On June 13, 1985, the Board deferred action on Mobil's motion until such time as Mobil filed its final compliance plan and the Illinois Environmental Protection Agency ("Agency") had reviewed the plan. Mobil filed the compliance plan on July 10, 1985. Agency, upon reviewing the compliance plan, filed a response on August 19, 1985, opposing modification of the variance. September 4, 1985, Mobil and the Agency filed a joint motion to stay this matter pending further resolution and information exchange which was granted by the Board on September 5, 1985. Mobil filed additional information on December 10, 1985, and the Agency filed its Recommendation to grant relief on February 6, 1986.

The Board's August 22, 1984, Opinion and Order in this matter grants Mobil a three-year variance from various water quality standards which expires on July 1, 1987. A full exposition of the facts is found in that Opinion and will not be repeated here. However, the pertinent facts are that Mobil operates a phosphate fertilizer manufacturing operation in DePue, What has been called Outfall 002 consists of Illinois. groundwater seepage from a gypsum storage area and clearwater pond used in Mobil's phosphoric acid manufacturing process. Seepage from the gypsum pond flows into an unnamed ditch running along the perimeter of the gypsum/clearwater pond system. ditch is tributary to Negro Creek, which is tributary to the Illinois River. Seepage to the unnamed ditch ranges from 10,000 to 28,000 gallons per day (gpd). The ditch fails to comply with

the state's water quality standards for fluoride, ammonia nitrogen, unionized ammonia, total dissolved solids and sulfate. (Mobil Chemical Co. v. IEPA, PCB 83-166, August 22, 1984, pp. 1-3.)

The Board granted a three-year variance, established interim water quality standards applicable to the unnamed impacted ditch during the term of the variance and ordered Mobil to investigate any and all possible technologies for achieving compliance and to file a report of its finding with the Agency.

Mobil, in its Motion for Relief from Final Order, requests that the Board retroactively modify the interim water quality limits for the unnamed ditch, which, due to the unique circumstances, is essentially a limitation on Mobil's discharge. The original interim limitations were agreed upon by the Agency and Mobil and incorporated as a condition of a variance. Mobil bases its motion for relief on Section 103.241(b)(1) "newly discovered evidence which by due diligence could not have been discovered in time." The "newly discovered evidence" is water quality monitoring data generated subsequent to the August 22, 1984, variance which shows contaminant levels higher than the interim limitations (Motion for Relief, p. 4).

Mobil asserts that the current interim limitations were based on limited data and that despite all parties' best estimates, they have proved to be inadequate to shield Mobil from potential enforcement. Water quality in the unnamed ditch is affected by dry weather conditions obviously beyond the control of Mobil. Mobil claims that the original limited data base did not accurately represent the full range of weather related variation (Id at 5, 9).

A review of DMR's from September, 1984, to November, 1985, reveals the following:

Month	NH 3-	- N	Fluor	iđe	TDS		Sulfat	te
	Mo.Ave.	Max.	Mo.Ave.	Max.	Mo.Ave.	Max.	Mo.Ave.	Max.
11/85	4.97	12.90	1.48	32.00	725	944	257.76	430.00
10/85	33.38*	48.60*	6.05*	9.18	1370*	1880	822.6*	1337.5*
09/85	36.6*	48.90*	5.17*	6.46	1492*	1816	920.3*	1075.0*
08/85	32.05*	37.40	4.61*	4.94	1286	1476	648.5	750.0*
07/85	25.17	40.30	4.36	5.84	1010	1240	457.1	656.0
06/85	34.0*	39.7	5.31*	6.54	1101	1224	524.8*	585.0
05/85	22.14	25.8	4.12	4.50	967	1064	385.1	557.4
04/85	11.30	15.40	2.47	3.48	789	868	177.4	235.0
03/85	8.51	14.20	2.63	4.36	618	868	146.2	265.0
02/85	31.58*	55.50*	3.95	6.62	1217	1728	423.6	675.0
01/85	24.96	38.80	2.49	3.60	1134	1400	306.1	432.6
12/84	32.92*	39.00	3.47	4.00	1423*	1644	603.8*	737.5*
11/84	28.97*	37.70	3.70	4.84	1258	1480	512.7*	660.0
10/84	40.89*	58.80*	5.42*	7.66	1426*	1724	572.4*	825.0*
09/84	49.80*	57.20	5.88*	6.76	1529*	1728	767.0	891.5*
Ave.	27.8	38.01	4.07	5.45	1156 -	1406	501.7	674.2
Max.	49.80	58.80	6.05	9.18	1529	1880	920.3	1337.5
Min.	4.97	12.90	1.48	3.00	618	868	146.2	235.0

(Values noted with an asterisks indicates an exceedance of the interim limitations.) (Agency Rec., p. 2.)

The Agency recommends raising the interim limitations but is not in agreement with Mobil as to the precise values. While Mobil is generally in compliance, there have been occasional but persistent excursions (Id). The various limitations at issue are summarized for the purposes of comparison.

	Current		Agency		Mobil	
	Limitations		Recommended		Requested	
	1*	2*	1*	2*	1*	2*
Ammonia	27	<b>4</b> 5	50.0	59.0	54.	71.
Fluoride	<b>4.</b> 5	10	6.0	9.0	5.8	9.6
TDS	1300	2000	1530.	1900.	1682.	2150.
Sulfate	500	685	920.	1340.	745.	938.

1\* - Monthly average (mg/l)

2\* - Maximum (mg/1)

Mobil requests relief for ammonia that would be 6 mg/l above the highest monthly average (49.8 mg/l in September, 1984) and 12 mg/l above the highest daily maximum (58.8 mg/l in October, 1984). The Agency believes that it is unnecessary to raise the effluent limitations to these levels in order to assure retroactive compliance.

As to fluoride, Mobil requests a monthly average limit that would still cause it to be in violation twice during the 15-month

period reviewed. The Agency agrees that the daily maximum limit ought to be lowered to reflect present performance more accurately.

Regarding TDS, the data indicates five excursions on a monthly average but has not closely approached the present maximum limit. The Agency does not believe elevation of the monthly level is justified and, in fact, recommends a more stringent limit than is currently in place.

Sulfate limits as presently set have been violated eight times as to monthly average and six times as to daily maximum. The Agency believes that Mobil's requested limits would not be adequate to assure retroactive compliance.

The discrepancy between Mobil's requested limitations and the Agency's recommended limitations could be attributable to the Agency's reliance on additional data through November, 1985. (Mobil's Motion for Relief was filed on May 24, 1985.) Also, Mobil based its requested limitations on a 95% statistical level of confidence of compliance, while the Agency seems to base its limitations on more complete data viewed retroactively (Motion for Relief, p. 18).

During the term of this variance, Mobil has been investigating and developing a method to ultimately comply with state water quality limitations. As a condition of the August 22, 1984, Order granting variance, Mobil timely filed a compliance plan in July of 1985. Mobil has chosen a compliance option that consists of constructing two low level dams and a carry through pipe between them to convey low flows in the receiving stream. The captured flows would then be returned to the gypsum pile. Data from an experimental project conducted by Mobil indicates that the compliance plan will probably achieve compliance for all parameters except ammonia (Mobil Submittal of Additional Information p. 7).

The Agency recommends that new interim limitations be established, to be applied retroactively, until the proposed compliance alternative is completed. When construction is completed, a second set of limits, for ammonia only, would come into effect. The proposed compliance plan is predicted to reduce ammonia levels but not achieve full compliance. The Agency recommends a compliance schedule for achievement of all final effluent limitations by July 1, 1987.

The Board will modify the variance granted on August 22, 1984. The original interim limits were based on a limited data base that has proved inadequate to shield Mobil during the period they work towards compliance. The Board will establish new interim water quality limitations for the impacted unnamed ditch as recommended by the Agency. These limitations are based on a

larger body of data and are better tailored to Mobil's actual discharge. As the purpose of this modification is to ensure retroactive compliance, rather than to forecast future compliance, these limits appear to be more appropriate. The Board notes that certain limitations that Mobil requests would not achieve its goal of retroactive compliance. Additionally, the Board will establish a second ammonia standard for the period after completion of the new ditch system and a schedule for ultimate compliance by July 1, 1987. This more detailed schedule is based on information regarding compliance options not before the Board in August of 1984. The Board has not been asked, nor is it now extending the term of the variance originally granted.

## ORDER

The variance from 35 Ill. Adm. Code 302,121 and 302.218 previously granted to Mobil Chemical Company ("Mobil"), DePue facility, for Outfall 002 on August 22, 1984, is hereby modified by the conditions established in this Order. The following conditions replace the conditions established in the August 22, 1984, Board Order:

- 1. The variance shall commence on November 15, 1983, and expire on July 1, 1987.
- 2. Mobil shall at all times maintain and operate its existing bypass/sump/collection system in such a manner as to achieve optional performance. This shall include measures to prevent or alleviate the buildup of silt in the pumping station.
- 3. Mobil shall perform sampling and analyses in accordance with NPDES permit IL 0032182. In addition, unionized ammonia shall be monitored or calculated at the same frequency as total ammonia nitrogen.
- 4. Until completion of the proposed compliance alternative, water quality at Outfall 002 shall not exceed the following limitations (in mg/l):

	Monthly Ave.	Maximum
Ammonia	50.0	59.0
Fluoride	6.0	9.0
Total Dissolved		
Solids	1530.00	1900.0
Sulfate	920.00	1340.0

5. Mobil shall commence construction of its proposed improvements within thirty (30) days of the date of receipt of a construction permit from the Agency.

- 6. Petitioner shall complete construction of the proposed improvements as expeditiously as possible but in no event later than April 30, 1986, unless an Agency construction permit has not been granted.
- 7. On May 1, 1986, or upon completion of the proposed facilities, whichever occurs first, until the variance expires water quality at Outfall 002 shall not exceed the following limitations (in mg/l):

	Monthly Ave.	Maximum
Ammonia	10.0	15.0

- 8. If by December 1, 1986, it is apparent that Mobil's discharge at Outfall 002 will continue to cause water quality violations, then Mobil shall meet the following schedule:
  - a. By February 1, 1987, Mobil shall submit plans and specifications for its ultimate compliance plan;
  - b. By May 1, 1987, Mobil shall commence construction of its ultimate compliance option;
  - c. By June 15, 1987, Mobil shall complete construction of its ultimate compliance option; and
  - d. By July 1, 1987, Petitioner shall attain operational status of its ultimate compliance option and meet all water quality parameters at Outfall 002.
- 9. Within 45 days of the date of this Order, Mobil Chemical Company shall execute a Certification of Acceptance and Agreement to be bound to all terms and conditions of this variance. Said Certification shall be submitted to the Agency at 2200 Churchill Road, Springfield, Illinois 62706. The 45-day period shall be held in abeyance during any period that this matter is being appealed. The form of said Certification shall be as follows:

## CERTIFICATION

I, (We)	, hereby
accept and agree to be bound	by all terms and conditions of the
Order of the Pollution Contr	ol Board in PCB 83-166, May 9, 1986.
Petitioner	
	MATERIAL DE LA CONTRACTOR DE LA CONTRACT
Authorized Agent	
Title	manufacture.
Date	_
IT IS SO ORDERED.	•
Chairman J.D. Dumelle c	oncurred.
I. Dorothy M. Gunn. Cle	rk of the Illinois Pollution Control
	he above Opinion and Order was
adopted on the $94$ day of _	<u>May</u> , 1986, by a vote
of $7-0$ .	
	N
	Worthy Mr. Swan
	Dorothy M. Gunn, Clerk
	Illinois Pollution Control Board