ILLINOIS POLLUTION CONTROL BOARD
October 7, 1993

MARATHON OIL COMPANY, Petitioner, v. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, Respondent.	)	PCB 91-173 (Variance on Remand)

JOSEPH W. WRIGHT, OF MCBRIDE BAKER & COLES, APPEARED ON BEHALF OF PETITIONER;

ROBB LAYMAN APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by R.C. Flemal):

This matter comes before the Board on remand from the appellate court, fifth district, issued June 29, 1993. The court reversed and remanded a July 9, 1992 order of the Board that denied variance to Marathon Oil Company (Marathon). (Marathon Oil Company v. IEPA and PCB (5th Dist. 1993), 242 Ill.App.3d 200, 610 N.E.2d 789, 182 Ill. Dec. 920.)

The Board's responsibility in this matter arises from the Environmental Protection Act (Act) (415 ILCS 5/1 et seq. (1992).) The Board is charged therein with the responsibility to "grant individual variances beyond the limitations prescribed in this Act, whenever it is found upon presentation of adequate proof, that compliance with any rule or regulation, requirement or order of the Board would impose an arbitrary or unreasonable hardship"[1]. More generally, the Board's responsibility in this matter is based on the system of checks and balances integral to Illinois environmental governance: the Board is charged with the rulemaking and principal adjudicatory functions, and the Illinois Environmental Protection Agency (Agency) is responsible for carrying out the principal administrative duties.

Based on the record before it, the Board finds that Marathon has met its burden of demonstrating that denial of variance would impose an arbitrary or unreasonable hardship. Accordingly, the variance request will be granted.

---

[1] Act at Section 35(a).

PROCEDURAL HISTORY

This matter initially came before the Board upon a petition for variance (Pet.) filed by Marathon on September 17, 1991. The petition sets out a request for variance from Marathon's own site-specific water quality standard for chloride found at 35 Ill. Adm. Code 303.323. Variance is requested for the time period necessary for resolution of a related rulemaking proposal[2]. In the rulemaking Marathon seeks to make permanent the relief requested in the instant variance proceeding.

Hearing was held before hearing officer Stephen Davis on November 13, 1991 in Robinson, Illinois, site of the facility at issue. Marathon presented the only witness and no members of the public attended the hearing. No further hearings have been held.

By order dated January 9, 1992 the Board found that although compliance might be difficult for Marathon, no demonstration of hardship had been made. The Board had largely based this finding on the fact that Marathon did not violate the regulations in the previous year and that Marathon could comply with the present regulations. The Board did not proceed to weigh the hardship against environmental impact due to its finding that no hardship exists.

The appellate court reversed the Board on the finding of hardship. Further, the court articulated the relationship between simple hardship and arbitrary or unreasonable hardship:

> The petitioner must *** show that the hardship it will encounter from the denial of the variance will outweigh any injury to the public or environment from the grant of the variance. Only if the hardship outweighs the injury does the evidence rise to the level of an arbitrary or unreasonable hardship. (Marathon, 610 N.E.2d 789,793; 182 Ill. Dec. 920,924.)

The court therefore remanded the matter to the Board for a determination of whether the hardship outweighs injury to the public or environment. This is as the matter currently stands[3].

---

[2] In the Matter of: Petition of Marathon Oil Company for Site-Specific Water Regulation, R91-23. See opinion and order of this same day.

[3] The Board notes that at one place in its opinion the court states that it "finds that the evidence presented was 'adequate proof' that continued compliance *** will impose an arbitrary or unreasonable hardship upon Marathon" (Marathon 610 N.E.2d 789,793; 182 Ill. Dec. 920,924). This statement notwithstanding, given the court's articulation of the relationship of hardship to arbitrary and unreasonable hardship, read in combination with the

On July 22, 1993 the Board requested that the parties file statements indicating whether they wished to update the record in this matter. On August 9, 1993 Marathon filed its statement. Also on August 9, the Agency filed a request to file a brief. On August 31, 1993 Marathon filed its statement indicating that it wished to stand on the record. On September 16, 1993 the Agency filed a supplemental brief (Resp. Supp. Br.). In that document, the Agency reaffirms its recommendation that the variance be denied. However, the Agency further states that should the Board grant the variance it urges that conditions be imposed.

BACKGROUND

Marathon operates a petroleum refinery located on the outskirts of the City of Robinson, Crawford County, Illinois. The refinery processes some 180,000 barrels of oil per day and employs approximately 650 persons (Tr. at 11).

Part of the refining process consists of removing water from the crude oil. The water contains chloride, the quantity of which varies depending upon the nature of the pore fluids in the source rocks of the crude oil and the history of recovery, transportation, and storage of the crude oil. Because the Marathon facility receives crude oil from different sources, the chloride content of the crude oil processed at the facility likewise differs. Since 1988 the chloride content has varied on a monthly-average basis from a low of 29.2 pounds per million barrels to 104.5 pounds per million barrels; in the first ten months of 1991 chloride contents ranged from an average of 48.5 to 88.7 pounds per million barrels (Exh. 8).

Marathon treats its wastewaters prior to discharging them. However, the treatment is not capable of producing significant reduction in chlorides. Marathon is in the process of designing an upgraded treatment facility that would allow it to increase treatment capacity, but this too would have only marginal effect on chloride discharge concentrations (Tr. at 25-27). Current management techniques for high-chloride effluent involve storing effluent in storm water retention facilities before it can be discharged in amounts that meet the current 700 ml/L standard. The capacity to catch and manage storm flows is diminished when the facilities are being used to store high-chloride effluent. The chances of overflow becomes greater during storm events. (Tr. at 35-38.)

---

court's instruction to the Board to weigh Marathon's hardship against environmental impact, leads the Board to believe that the court intends the Board to make a decision on whether Marathon's hardship rises to the level of arbitrary or unreasonable hardship (i.e., whether denial of the variance would outweigh any injury to the public or environment).

Discharge of the wastewaters is to an unnamed[4] tributary of Sugar Creek at approximately mile 5.0 of the unnamed tributary; Sugar Creek thence flows approximately five miles more to its mouth on the Wabash River (Pet. Exh. 1, p. 8).

The unnamed tributary at the Marathon discharge has a drainage area of approximately eight square miles (Tr. at 15) and a natural 7-day 10-year low flow of zero (Tr. at 22). However, actual low flow in the unnamed tributary is controlled by wastewater and other manmade discharges. These include discharges located upstream from Marathon's discharge that aggregate an average of approximately 1.4 million gallons per day (MGD[5]) (Tr. at 15-6), of which the discharge of the City of Robinson's sewage treatment plant at 1.2 MGD is the largest. Marathon itself discharges an average of another 1.4 MGD, such that the low flow is approximately doubled due to Marathon's discharge.

REGULATORY FRAMEWORK

The Board's general effluent regulations do not include a specific limitation for chloride. However, they do prohibit any discharge that would cause or contribute to a violation of a water quality standard. (35 Ill. Adm. Code 304.105.) The pertinent water quality standard for chloride is the 500 mg/L General Use Water Quality Standard found at 35 Ill. Adm. Code 302.304.

Marathon initially petitioned this Board for exemption of its receiving waters from the 500 mg/L water quality standard in PCB 80-102. On October 2, 1980 the Board granted this petition, under condition that chloride effluent concentrations not exceed 700 mg/L, effective through October 2, 1985.

In PCB 85-83 Marathon petitioned for extension of the PCB 80-102 variance with respect to chloride. On January 23, 1986 this petition was granted effective for the period October 2, 1985 through October 2, 1990.

On January 28, 1987 Marathon filed a site-specific rulemaking petition seeking, among other matters, to make permanent its exemption from causing or contributing to violations of the 500 mg/L water quality standard under the continuing provision that its effluent discharge not exceed 700 mg/L. On September 13, 1989 the Board responded to Marathon's

---

[4] Although not officially named, the creek is sometimes referred to as Robinson Creek (e.g., Pet. Exh., p. 6).

[5] One MGD equals 0.04381 cubic meters per second or 1.55 cubic feet per second (cfs).

petition by promulgating[6] a new rule at 35 Ill. Adm. Code 303.323. The new rule generally tracked Marathon's proposal, except that the Board added a 550 mg/L limit on in-stream chloride concentrations as recommended by the Agency. This is the rule to which Marathon is currently subject, and from which it today requests variance:

> Section 303.323 Sugar Creek and Its Unnamed Tributary
>
> a) This Section applies only to Sugar Creek and its unnamed tributary from the point at which Marathon Petroleum[7] Company's outfall 001 discharges into the unnamed tributary to the confluence of Sugar Creek and the Wabash River.
>
> b) 35 Ill. Adm. Code 304.105 shall not apply to total dissolved solids and chlorides discharged by Marathon Petroleum Company's Outfall 001, so long as both of the following conditions are true:
>
> 1) Effluent from Marathon Petroleum Company's Outfall 001 does not exceed 3,000 mg/l total dissolved solids or 700 mg/l chlorides,
>
> 2) The water in the unnamed tributary does not exceed 2,000 mg/l total dissolved solids or 550 mg/l chlorides.

On August 19, 1991 Marathon filed a new site-specific rulemaking proposal, R91-23, seeking to amend the chloride provisions of Section 303.323. The new proposal would increase the effluent chloride limitation from 700 mg/L to 1000 mg/L and the chloride water quality standard from 550 mg/L to 700 mg/L. Hearing in R91-23 was held on September 10, 1992. The Board today also proposes amendments in proceeding R91-23.

On September 17, 1991 Marathon filed the instant proposal. In it Marathon requests as variance conditions the same 1000 mg/L and 700 mg/L effluent and water quality limitations that it proposes as amendments to Section 303.323. Thus, favorable consideration of Marathon's variance request would have the effect of establishing as interim standards the same standards

---

[6] In the Matter of: Marathon Petroleum Company Site-Specific, R87-2, 103 PCB 133.

[7] Marathon Oil Company is the successor in interest to Marathon Petroleum Company. (Marathon brief at 1.)

Marathon's seeks to have made permanent via its site-specific petition.

HARDSHIP

The court has found that denial of variance would constitute a hardship upon Marathon. (Marathon 610 N.E.2d 789,793; 182 Ill. Dec. 920,924.) The Board will accordingly not again determine the hardship issue. Rather, the Board confines itself to the instruction of the court "to decide if the hardship to Marathon outweighs the environmental impact, if any, of the requested variance" (Id. 610 N.E.2d 789,794; 182 Ill. Dec. 920,925). (See footnote 3.)

The court observed that facts presented in the record indicate that Marathon has no control over the increasing levels of chloride in its crude oil, and that Marathon has come close to violating the current standard, especially during rain events. (Id. at 792.) The court cited testimony that indicated that it will be virtually impossible for Marathon not to violate the chloride limits in the future. The court thereby found that "the virtual certainty of future violation of the Board's rule is a hardship on Marathon" (Id. at 793).

As a further element of the presence of hardship, the court reviewed the record of compliance options available to Marathon. The court observed:

> In 1985, Marathon considered alternate methods of controlling the chloride discharge from the Marathon plant. Although three alternate methods of treatment and disposal were considered feasible, none were found to benefit the environment of the stream sufficiently to justify the cost. None of the alternate methods were found to decrease the amount of chlorides Marathon discharges into the stream. In 1989, the Board concluded that Marathon has no viable alternatives to their current chloride-management system. (Id. at 791.)

ENVIRONMENTAL IMPACT

The unnamed tributary in question has been the subject of several environmental studies. Marathon's consultant, Radian Corporation, performed a study in 1986, finding that, while there were no fish for a distance below the Marathon outfall, the water quality and stream sediment quality had improved since a study done in 1976 by the Agency. (Tr. at 47; Pet. Exhs. 1,2.)

A study was also undertaken by the Agency in 1986 and published in 1988. (Pet. Exh. 1.) Marathon believes that the

Agency's study reaches the same basic conclusions as the Radian Corporation study. There are differences between the studies, mainly in scope, as the Agency study encompassed general stream quality while the Marathon study was limited to the Marathon discharge. (Tr. at 45-46.) In 1991, the Agency performed a survey of the fishes of the Sugar Creek Basin in the proximity of the Marathon discharge and found some improvement in the fish population since the two 1986 studies, as well as a lack of toxicity in the stream sediment. (Resp. Exh. 1.) The Agency reported fishless conditions for four (4) miles downstream of the Marathon outfall and concluded that "it seems very likely that the continued effluent toxicity from Marathon is the cause of impacts on the fish community". (Id.)

The 1991 study as well as the 1986 studies show that there continues to be an effect downstream of the Marathon discharge that is limiting or reducing the number of fish in the Sugar Creek Basin area. (Tr. at 49-50; Resp. Exh. 1.) As Robert Wallace, of Radian Corporation testified:

> [T]he [Agency] and, for that matter, Marathon, are at a loss to explain the stream degradation that is apparent from observation of the biological community in the stream, and there is some frustration on both sides because it can't be clearly shown what's causing it. Whether it's something in the discharge or not, we don't have identification of a chemical that's causing the observed toxicity. (Tr. at 50.)

The Agency agrees with Marathon that the present chloride discharge is not causing appreciable stream degradation (R87-2Tr[8]. at 104; Resp. Supp. Br. at 2.) However, the Agency essentially argues that it is unknown whether chlorides discharged at the higher level requested here would contribute to the toxic condition of the stream immediately downstream from the outfall. (Resp. Supp. Br. at 2.)

Marathon also observes that the currently-employed storage option of controlling chloride levels in the plant effluent has a potential negative environmental impact on the stream due to the greater chance of overflow during certain storm events. Marathon urges that this effect also be considered in evaluation of the environmental impact on the stream.

---

[8] On November 19, 1991 Marathon filed a motion to incorporate the transcript of hearing from In re: Marathon Petroleum Company to Amend Regulations Regarding Water Use Designation and Site Specific Water Quality Standards, R87-2, 103 PCB 133, a copy of which is provided. The Agency has not contested this motion. At this juncture the Board grants the motion. This transcript will be cited "R87-2Tr. at ___".

DISCUSSION

The Board's charge in the instant remand is to determine whether the environmental impact of the proposed chloride discharge limits would outweigh the hardship already determined by the court to exist if the proposed chloride limits are not allowed. The Board finds that there is little in the record that speaks directly to the matter of the in-stream environmental impact of chloride at the concentrations at issue. Instead, the environmental impact information is of a broad character, addressing principally the undisputed presence of toxicity.

Such evidence of environmental impact of chloride as does exist in the record focuses mainly on the probable consequences of Marathon's current chloride management program. It is not contested that this chloride management program presents a significant risk of overflow, and thereby production of in-stream chloride concentrations that at the best are erratic and at the worst are higher than the maximums that would occur if Marathon managed its chloride discharges under the limits requested in this variance. The Board finds no basis to believe that either erratic or episodic high in-stream chloride levels are likely to be environmentally preferable to the levels Marathon here requests. Neither does the Board have basis to believe that the chloride levels here proposed, and for the short term of the variance, constitute a limiting factor in the quality of the receiving waterway.

Based upon these considerations, the Board finds that the hardship that Marathon would incur if the variance request is denied outweighs the environmental impact that may be reasonably expected to occur under the terms and limits of the variance.

The Board shares the concerns of the Agency regarding toxicity in the unnamed tributary. This toxicity does need to be characterized and eliminated.

However, the Board is unconvinced that the toxicity testing that the Agency would have Marathon conduct is proper as a condition to the instant variance. Today's variance deals solely with the discharge of chloride, and with such hardship and environmental impact as may be associated with this discharge. There is nothing in the record, including observations on the chemistry of chloride or any studies or literature regarding chloride's biological roles, that today implicates chloride in the type of toxicity present in the unnamed tributary. The Board therefore believes that it is inappropriate to reach out to the toxicity issue in this instant matter.

The toxicity issue would seem to be appropriately addressed in the NPDES permitting process. There the nature of the

effluent in all its water quality aspects (including its possible toxicity) is a germane concern[9].

The variance is requested for the time necessary to complete the pending site-specific rulemaking. The Board finds that a period of one year should be sufficient for completion of that proceeding. Therefore, the Board order reflects the expiration of this variance one year from today, or upon completion of the site-specific rulemaking, whichever is sooner.

Lastly, the Board notes that the conclusions it reaches based upon the record of the instant variance proceeding do not necessarily reflect on the merits of Marathon's site-specific rulemaking proposal currently under consideration in Board docket R91-23, and proposed today for first notice. The burdens of proof and the standards of review in a rulemaking (a quasi-legislative action) and a variance proceeding (a quasi-judicial action) are distinctly different (*cf.* Titles VII and IX of the Act; see also Willowbrook Development v. IPCB (1981), 92 Ill.App.3d, 1074), as are the records in the two proceedings. Moreover, the Board cannot lawfully prejudge the outcome of a pending regulatory proposal in considering a petition for variance. (City of Casey v. IEPA (May 14, 1981), PCB 81-16, 41 PCB 427,428.) Conversely, the pendency of a rulemaking does not stand by itself as grounds for grant of a variance. (Section 35(a) of the Act; Citizens Utilities Company of Illinois v. IPCB (1985), 134 Ill.App.3d, 111,115; City of Lockport v. IEPA (September 11, 1986), PCB 85-50, 72 PCB 256,260; General Motors Corporation, Electro-Motive Division v. IEPA (February 19, 1987), PCB 86-195, 76 PCB 54,58; Alton Packaging Corp. v. IEPA (February 25, 1988), PCB 83-49, 86 PCB 289,299.)

This opinion constitutes the Board's findings of fact and conclusions of law in this matter.

ORDER

Marathon Oil Company is hereby granted variance from the requirements of 35 Ill. Adm. Code 303.323 as these requirements apply to chloride, subject to the conditions listed below.

1) This variance expires on October 7, 1994, or upon final disposition by the Board of the rulemaking proposal docketed as R91-23, whichever occurs first.

2) During the term of variance the chloride effluent limit of 700 mg/L found at 35 Ill. Adm. Code 303.323(b)(1)

---

[9] The Board notes that it is not prejudging the imposition of TRE's in the pending permit appeal, PCB 92-166, but only states that the issues are better raised in the permit context.

does not apply; in its stead a chloride effluent limit of 1,000 mg/L applies.

3) During the term of variance the chloride water quality limit of 550 mg/L found at 35 Ill. Adm. Code 303.323(b)(2) does not apply; in its stead a chloride water quality limit of 750 mg/L applies.

Within 45 days of the date of this order, Petitioner shall execute and forward to Robb Layman, Division of Legal Counsel, Illinois Environmental Protection Agency, 2200 Churchill Road, Post Office Box 19276, Springfield, Illinois 62794-9276, a Certification of Acceptance and Agreement to be bound to all terms and conditions of this variance. The 45-day period shall be held in abeyance during any period that this matter is being appealed. Failure to execute and forward the Certificate within 45 days renders this variance void and of no force and effect as a shield against enforcement of rules from which variance was granted. 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 Control Board in PCB 91-173, October 7, 1993.

_____
Petitioner

_____
Authorized Agent

_____
Title

_____
Date

IT IS SO ORDERED.

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1992)) provides for the appeal of final Board orders within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements. (See also 35 Ill.Adm.Code 101.246 "Motions for Reconsideration".)

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 7th day of October, 1993, by a vote of 7-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board