

ILLINOIS POLLUTION CONTROL BOARD
February 23, 1989

MORTON THIOKOL INC.,)
MORTON CHEMICAL DIVISION,)
)
Petitioner,)
)
v.) PCB 88-102
)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

RICHARD J. KISSEL AND SUSAN M. FRANZETTI, APPEARED ON BEHALF OF THE PETITIONER; AND

WAYNE WIEMERSLAGE APPEARED ON BEHALF OF THE RESPONDENT.

OPINION AND ORDER OF THE BOARD (by J. Anderson):

This matter comes before the Board on the June 15, 1988 petition and the September 28, 1988 amended petition for variance extension filed by Morton Thiokol, Inc., Morton Chemical Division (M-T) regarding BOD₅ discharges from Outfall 001A at its Ringwood, Illinois plant. On November 29, 1988, the Environmental Protection Agency (Agency) filed its Recommendation to grant variance, with conditions. Hearing was held on January 6, 1989, at which two members of the public entered appearances; Dr. Louis Marchi, who testified and Patricia Malo, who did not.*

Procedural History

Before proceeding to the merits, a summary and resolution of certain aspects of the procedural history in this proceeding is necessary to clarify the situation.

On May 28, 1987, in PCB 86-223, the Board granted M-T a variance for its Ringwood plant from the 35 Ill. Adm. Code 304.120(c) effluent limitation of 10 mg/l for BOD₅ and from Section 304.141(a),** which Section forbids effluent discharges in excess of permit standards and limitations. That variance expired on June 30, 1988.

* On December 15, 1988, the Board denied M-T's motion to cancel hearing, in part based on Ms. Malo's environmental concerns.

** For brevity, the Opinion will identify relevant rules by Section number rather than by repeating the 35 Ill. Adm. Code format.

On June 15, 1988, as noted above, M-T filed its instant petition for a one year variance extension, but nevertheless requested it until December 31, 1989, from the same 10 mg/l BOD₅ effluent limitation in Section 304.124(c), applicable only to its Outfall 001A, which Outfall 001A is combined with a non-contact cooling water discharge designated as Outfall 001. M-T also requested that the record, opinions and orders from the prior PCB 86-223 variance proceeding be incorporated into the record of this proceeding.* M-T also requested that the compliance standards be determined by the Board's Dilution Rule at Section 304.102.

However, on September 28, 1988, M-T filed an amended petition for variance extension with a substantial number of changes.

First, it now requests a variance extension from Section 304.120(a), which Section sets a less stringent effluent standard of 30 mg/l of BOD₅; thus, using the Board's Section 304.104 averaging rule, a 30 mg/l monthly average and 60 mg/l daily composite limit is established.** M-T asserts that the Agency had recently determined that the 30/60 standard applies to Outfall 001A; however, because Outfall 001A exceeds this limit also, M-T needs variance from this less stringent standard.

Next, M-T no longer requests that the Board's Dilution Rule be applied (which, M-T asserts, would have allowed a 50/133 mg/l BOD₅ limit.)

Next, M-T now requests variance only until March 31, 1989. It states that this change was in response to Agency concerns expressed as an settlement offer and at a settlement meeting on August 17, 1988. The Agency's concerns revolved around USEPA regulations, effective March 31, 1989, set forth at 40 CFR 414 and 416, with Subpart D of Part 414 being specifically applicable, which establish "pretreatment regulations" (sic) containing effluent limitations of 24 mg/l monthly average and 64 mg/l daily maximum for BOD₅, applicable to the Organic Chemicals Plastics and Synthetic Fibers (OCPSF) category, within which the Ringwood plant falls. (Amendment to Amend. Pet. p. 2,3).

M-T states that, because the federal 24/64 mg/l limit is more stringent than both the 50/133 mg/l limit pursuant to the

* On June 16 and October 6, 1988, the Board allowed incorporation by reference of prior Opinion and Order in PCB 86-223 but required M-T to file three copies of any other portions of the record it wished to incorporate. M-T filed the latter as exhibits on January 17, 1988.

** No mention is made of the Board's grab sample limit of 150 mg/l that is also a limit derived from the Section 304.104 averaging rule.

Dilution Rule and the Board's 30/60 limit, the federal regulations supersede the Board's regulations after March 31, 1989; thus, the Board will not have authority to grant variance from its rules beyond March 31, 1989. Prior to March 31, 1989, M-T no longer requests variance from the Board's Dilution Rule, just from the 30 mg/l BOD standard in Section 304.120(a).

Regarding compliance with the federal requirements, M-T, on May 3, 1988 requested from the USEPA a "fundamentally different factors" variance to operate under an alternative 133/50 mg/l limit. However, if M-T finds it can comply with the 24/64 OCPSF standard with its new biological treatment system, it will seek alternate relief, such as an administrative order specifying a three year schedule of compliance after issuance of its renewed NPDES permit. M-T also believes the plant may also be able to comply with the Board's 30/60 mg/l standard.

In its recommendation, and in a subsequent stipulation of facts submitted at hearing in lieu of oral testimony each party would otherwise present at hearing, the Agency essentially agrees with M-T's assessment, and also recommended that no BOD₅ limit be imposed during the term of the Board's variance. However, the parties proposed that, even though the variance should terminate on March 31, 1989, the compliance schedule in the variance should extend until December 31, 1989.

The Agency also recommends that the Board condition the variance on posting a performance bond or other security, pursuant to Section 36(a) of the Act, with a proviso that, upon failure to complete construction, the bond be used to complete the construction or forfeited to the Illinois Environmental Trust Fund. (Agency Rec. p. 15) At hearing, M-T protested such a requirement (R. 27-30).

Finally, at hearing, M-T requested that the variance be back-dated to July 1, 1988, the day after the expiration of their prior variance. The Agency opposes this request.

Board Initial Comments

First, regarding the rationale for terminating the variance on March 31, 1989, the Board disagrees. Assuming that the federal regulation is in fact more stringent than the Board's limits, the Board agrees it should not order modification of the permit beyond the above date. However, an NPDES permit does not protect M-T from violation of the Board rule, or from citizen enforcement, as long as M-T is not in compliance with that rule; thus, M-T needs variance from the Board rule until December 31, 1989.

At the federal level, an NPDES permit is a shield from enforcement (see 40 CFR 122.5). At the State level, this is not

true. By way of explanation, the Board directs attention to Sections 304.141(a), 309.184 and, particularly Section 309.102(a).

Section 304.141(a) requires compliance with effluent standards and limitations set forth in the permit.

Section 309.184 addresses ordering permit issuance or modification pursuant to a variance consistent with the Board Order, the CWA, Federal NPDES regulations and the Act.

Then, Section 309.102(a) states:

"Except as in compliance with the provisions of the Act, Board regulations, and the CWA, and the provisions and conditions of the NPDES permit issued to the discharger, the discharge of any contaminant or pollutant by any person into the waters of the State from a point source or into a well shall be unlawful."

In essence, without variance, M-T must comply both with its NPDES permit and the Board standard.* Variance thus would have to be granted until December 31, 1989, with variance from the requirement to include the Board's limits as a permit condition terminating on March 31, 1989.

Next, the issue arises as to which standard is more stringent. The federal 24 mg/l monthly average is obviously more stringent than the Board's 30 mg/l monthly average. However, neither party mentioned, in this context, that the Board's 60 mg/l daily maximum is more stringent than the federal 64 mg/l daily maximum, and neither party mentioned the Board's 150 mg/l grab sample limit, all pursuant to Section 304.104 averaging.

* The Board notes that at one time the Board standard "dropped out" if the permit was an NSPS permit containing effluent limitations reflecting USEPA's best available demonstrated control technology guidelines and standards. In R76-21, the Board adopted such a provision on December 3, 1981 (46 PCB 203 et sec.) as Rule 412. This provision was repealed, effective January 18, 1984, in response to Agency concerns, one of which was to eliminate inequity between new and existing sources (see R82-5, R82-10 consolidated, 46 PCB 81; 8 Ill. Reg. 1600, and Source Note in Section 304.142 (formerly rule 412). Also note that 40 CFR 414.44 sets the BOD₅ NSPS effluent standard at the same 24/64 limit that is at issue in this instant proceeding.

** See the R76-21 Opinion, proposed on September 24, 1981 (43 PCB 368-374) and adopted on December 3, 1981, for a lengthy discussion of the effects of the present Section 304.104 "1,2,5" averaging rule.

The Board has already held that a hybrid standard is unacceptable, since the cost of compliance with such a standard is greater than either the Board or USEPA regulations and neither the Board or USEPA intended this result. (Peabody Coal Company v. Environmental Protection Agency, PCB 78-296, p. 7, 38 PCB 131, 137, May 1, 1980). The Board can only note that, over the long term, and particularly given these numbers, the monthly limits would control, resulting in the federal standards being more stringent.** The Board cautions, however, that "there is no guarantee that it will always be possible to derive Illinois standards which can always be compared with the federal standards." (Ibid p. 7) The Board also notes that, if variance is granted from the Board standards until December 31, 1989, M-T must be in compliance with those standards after that in any event.

Next, as long as variance is granted until December 31, 1989, the problem of ordering a compliance plan beyond the term of the variance becomes moot.

Finally, the Board notes that pretreatment regulations are not at issue here. The Board directs the parties' attention to 52 FR 42572-42574, November 5, 1987, 40 CFR, Part 414, Subpart D, Sections 414.41 and 414.43, which Sections set as effluent limitations, for existing sources, the 24/64 mg/l BOD₅ standard. (Sections 414.45 and 414.46 set the pretreatment standards for existing and new sources respectively and are not involved here).

The Facility

Because of the changing nature of this proceeding over time, the Board will hereafter primarily utilize the Stipulation of Facts entered at hearing.

M-C owns and operates a plant located in the unincorporated community of Ringwood, Illinois, McHenry County, which has a population of about 200.

The Ringwood plant is a specialty chemical plant producing emulsion polymers and co-polymers; solvent and water based adhesives; elastomers; epoxy molding compounds; and an agricultural soil fumigant.

The Ringwood plant normally operates on rotating shifts, twenty-four hours per day and seven days per week. The work force consists of approximately 300 employees.

The plant discharges an average of 1.3 MGD of non-contact cooling water, boiler blowdown and de-ionizer backwash. In addition, the treated polymer washwater from Outfall 001A is discharged at an average rate of 0.013 MGD. The production

processes which contribute to the generation of the Outfall 001A discharge include the following: Polyvinylidene chloride emulsion polymerization (latex); polystyrene emulsion polymerization (latex); polystyrene - Acrylic copolymer emulsion polymerization (latex), and polyester resins.

The bulk of the Ringwood plant's polymer washwater is generated during the washing and cleaning of the reactors, strainers, filters, storage tanks and miscellaneous pieces of equipment which are used in the production of the various latex products. A minor portion of the stream is generated during polyester production. This portion is water which is a polymerization reaction by-product and which is separated from the product mix via distillation.

The existing water pollution control treatment facilities for the Outfall 001A polymer washwater consist of the following: A pH adjustment tank (installed 1981); a vibratory screener to remove separable solids (installed 1981); an A.P.V. vapor recompression concentrating system to reduce the stream volume by about 75% (installed 1981); a LUWA wiped wall evaporator to further concentrate the stream to approximately 50% solids (installed 1987); a packed column steam stripper to remove VOCs from the condensate stream (installed 1981); a heat exchanger to condense the steam stripper vapors (installed 1981); and a carbon adsorption column to remove phenols from the condensate (installed 1986).

Prior to treatment, the polymer washwater contains approximately three percent solids. The treatment process involves a multi-step sequence that increases the concentration of this wastestream by use of pH controls, evaporation and foaming controls. The evaporator concentrate is disposed of as a solid non-hazardous waste.

The evaporated overhead material is condensed and then sent to a steam stripping column for removal of volatile organics. This condensed wastestream is then passed through a granular activated carbon bed (GAC) for phenol reduction. The vapors from the steam stripping column pass through a condenser. The condensate is collected in a closed system for further reaction to polymerize the contained VOC materials. The non-condensables from the steam stripper vapor stream are passed through a regenerative carbon system for removal of organics prior to discharge to the atmosphere. The resulting wastestream is then combined with the Ringwood plant's wastestream of spent non-contact cooling water, boiler blowdown and de-ionizer backwash, thus creating a single, combined wastestream which is discharged to the receiving stream from Outfall 001.

In October of 1985, the Agency issued a modified NPDES permit to M-T allowing the addition of the new wastewater

discharge, currently designated as Outfall 001A, to the existing Outfall 001 wastestream. When issuing the October 31, 1985 NPDES permit, and over M-T's objection, the Agency designated the internal polymer washwater from Outfall 001A as a separate Outfall. This polymer washwater had been disposed of in a landfill prior to November, 1985.

While no effluent limitations were imposed on Outfall 001A, the Agency did require that M-T perform a one-time analysis of the polymer washwater discharge for priority pollutants, heavy metals and organics. The analysis results showed that the BOD₅ concentration was 19.3 mg/l.

Subsequent analysis of the Outfall 001A discharge sampled on September 9, 1986 showed BOD₅ levels of 320 mg/l and 520 mg/l respectively. On September 26, 1986, the Agency issued M-T a reissued NPDES permit which contained an effluent limitation for BOD₅ at Outfall 001A of 10 mg/l for a thirty day average and a daily maximum of 20 mg/l. However, the Agency, as earlier noted, has proposed to modify the permit to reflect the less stringent BOD₅ limit of 30/60 mg/l average thirty day and daily maximum respectively.*

Compliance Efforts

The combined wastewater stream discharged from Outfall 001 has shown a BOD₅ level consistently below 5 mg/l, and is thus in unquestioned compliance with the BOD₅ effluent limitations contained in the Board's regulations.

The primary purpose for installing its treatment system was to decrease the volume of wastewater landfilled from the Ringwood plant. Since 1975, M-T has pursued efforts to minimize the amount of wastewater generated at the plant while increasing the amount of product produced. These wastewater minimization efforts have included: Adding rinse water to the product mix; educating plant operators as to the importance of wastewater minimization and conservation, including adding shut-off nozzles to hoses; removing sediment from the product stream for a significant portion of the product batches which require less rinse water than filter presses.

These conservation efforts have resulted in a decrease in wastewater generated from the plant, as measured by the ratio of the volume of product manufactured divided by the volume of wastewater generated, from about 0.25 in 1975 to 1.4 in 1978 to 1.7 in 1987.

* The Board notes that what was once a 30 day average was amended in late 1981 to a monthly average; see Section 304.104.

However, as a result of the above water conservation efforts, the concentration of BOD₅ in the Ringwood plant's untreated polymer washwater influent has increased from an average of 2080 mg/l in 1978 to an average of 4020 mg/l in 1988. The higher BOD₅ concentration levels have hindered M-T's efforts to effectively remove BOD₅ from the Outfall 001A wastestream to achieve the 30 mg/l level. However, M-T asserts that the estimated total removal efficiency to be achieved through the installation of a biological treatment system, which is M-T's latest compliance effort, will average greater than 98 percent. (Stip. p. 13,14)

M-T initiated efforts to achieve compliance with the Board's BOD₅ effluent limitation when it retained the professional services of Dr. James Patterson of Patterson Associates, Incorporated, Chicago, Illinois, environmental consultants. Studies, initiated in October, 1986, and completed during the last variance period, showed that, as between the aerobic biological and ozonation treatment approaches studied, only ozone oxidation was technologically capable of consistently achieving compliance with the then applicable 10 mg/l BOD₅ effluent limitation for Outfall 001A.

Unexpectedly, the overall estimated cost for installing the proposed ozone treatment process was \$4.2 million or about \$210/GPD treatment capacity -- ten-fold more than the high end of the typical range of treatment costs, plus annual electrical power costs estimated to be in excess of \$500,000.

On about June 29, 1987, M-T sent a sample of the Outfall 001A polymer washwater discharge to Emery Industries ("Emery") in Cincinnati, Ohio, a vendor of ozonating equipment. Emery performed additional BOD₅ treatability studies and in early June, 1987, Emery informed M-T that it did not recommend ozonation as a viable technological approach for treatment of the BOD₅ in Outfall 001A's discharge. (Stip. p. 15,16) In July, 1987, M-T requested O'Brien and Gere Engineers, Inc. ("O'Brien and Gere") in Edison, New Jersey, to evaluate all of the data generated during the Phase I and II Treatability Studies conducted by Patterson Associates and requested O'Brien and Gere to evaluate that data and, if appropriate, to submit a proposal for treatment tests. Second, in early July, 1987, M-T also contacted AquaTec, Inc. ("AquaTec") of Rockford, Illinois, a distributor of the "Ring Lace" wastewater treatment system -- an advanced biological treatment process. However, upon further evaluation, M-T decided not to pursue the Ring Lace treatment system because it is an unproven technology for this application.

In August, 1987, M-T retained O'Brien and Gere to evaluate the effectiveness of biological treatment. In bench-scale biological treatment tests of the Outfall 001A effluent, lasting nine weeks, and utilizing hydraulic retention times ranging from

two to four days, the treated level of BOD₅ ranged fairly consistently from 160 to 350 mg/l, for a resultant average concentration of 240 mg/l. At these BOD₅ concentration levels, the bench-scale biological treatment systems were effective in further reducing the BOD₅ concentration of the Outfall 001A effluent to an average value less than or equal to 10 mg/l. Based upon these initial sampling results, in November, 1987, O'Brien and Gere determined that a biological treatment system to comply with the Board's 10/20 BOD₅ standard would be feasible.

However, the last Outfall 001A wastewater sample received by O'Brien and Gere on November 20, 1987, contained a much higher BOD₅ influent concentration of 570 mg/l. This higher concentration resulted in levels in excess of 10 mg/l with the biological treatment system.

By February 1988, sampling results showed an average BOD₅ level of 593 mg/l in the Outfall 001A effluent. This effluent concentration was approximately 145% greater than the average effluent concentration of 240 mg/l observed by O'Brien and Gere during their 1987 treatability testing.

In March 1988, O'Brien and Gere informed M-T that the variability of the BOD₅ level in the wastestream was greater than had been previously considered and, therefore, the validity of the previous treatability studies for Outfall 001A was doubtful. (Stip. p. 17-19)

O'Brien and Gere concluded that the proposed biological treatment system should consistently achieve a monthly average effluent BOD₅ of 50 mg/l or less and a daily maximum effluent BOD₅ of 133 mg/l or less. The test results also show that, with average BOD₅ effluent concentration levels up to approximately 400 mg/l, the proposed biological treatment system will achieve compliance with the 10/20 mg/l standards. Since, during the period from June 1987 through April 1988, that concentration level has intermittently been exceeded, O'Brien and Gere further concluded that an extended aeration biological treatment system at an estimated cost of between \$500,000 and \$700,000 should consistently achieve BOD₅ reduction to a thirty-day average level of 50 mg/l -- resulting in an average total treatment system removal efficiency rate of approximately 98.4 percent.

Based upon these new findings, M-T realized for the first time in March 1988, that its ability to comply with the Board's BOD₅ effluent limitations by installing a biological treatment system was uncertain; therefore M-T believes that an extension of the prior variance is warranted.

Since March of 1988, subsequent treatability studies suggest that the Ringwood plant should be able to consistently meet the Board's BOD₅ standard of 30 mg/l and possibly the federal OCPSF

standard of 24/64 mg/l with the installation of the proposed biological treatment system.

As part of its proposed compliance plan, M-T completed in the fall of 1988 detailed design criteria for the refined biological treatment system. M-T requests an additional nine months to order and receive the equipment, and construct the treatment system. Finally, M-T requests an additional three months to attain steady state operations and achieve maximum BOD₅ removal capabilities. As previously stated, if the system does not meet the federal 24/64 BOD₅ standard, M-T will continue pursuing relief through its pending fundamentally different factors variance but is not contending that the granting of the instant variance be conditioned upon M-T's ability to obtain an FDF variance.

Environmental Impact

M-T discharges at Outfall 001 into an unnamed tributary which flows for approximately three miles to the confluence with Dutch Creek. Dutch Creek flows two miles to the confluence with the Fox River. Adjacent habitat is predominantly row crops, such as corn, with some fallow fields and hay fields. Livestock also graze in areas adjacent to the stream.

M-T asserts that the granting of this variance will not result in an adverse environmental impact upon the unnamed tributary or Dutch Creek, since discharge from Outfall 001 has a BOD₅ concentration that is consistently below 5 mg/l. M-T also references a biological study by Huff and Huff, Inc. in June, 1987, concerning a Modine Manufacturing Company's discharge to a tributary separate from M-T's; but both tributaries converge before flowing into Dutch Creek. The study showed water quality below Outfall 001 was good. Also, an August, 1986 Agency report showed acceptable water quality and no significant impact biologically.

Consistent with the above study, the Agency concluded in its Variance Recommendation filed in M-T's original variance proceeding and in this proceeding that the Agency's report "would tend to support Petitioner's contention that there is little, if any, adverse impact" upon the receiving stream. (Agency Rec., Exhibit C at p. 7). M-T further points out that the Board in the earlier variance concluded there was no significant impact. (PCB 86-223, May 28, 1987, p. 5)

Also, M-C has reported the results of its mercury concentrations in Outfall 001 and 001A to the Agency in its monthly progress reports, as required by Condition 6 of the Board's prior variance Order. The daily maximum and monthly average results in all cases comply with the Board's effluent and water quality limits of 0.005 mg/l. (Agency Rec. p. 6, Ex. Q &

R). The Agency recommends that M-T no longer be required to monitor and report mercury concentrations at Outfalls 001 and 001A on a monthly basis because the monthly and weekly sampling results since July 1987 have without exception shown that the level of mercury is below the detection limit. (Agency Rec., p. 6, Exhibits Q and R).

Impact Minimization

M-C does accept a requirement to comply with Conditions 3 and 6 of the Board's prior Order concerning BOD₅ monitoring and monthly compliance progress report respectively.

Regarding compliance alternatives, M-C also asserts that it has determined that there are no known process changes which can be implemented which would adequately control BOD₅ levels in Outfall 001A and maintain the quality of its products.

After reviewing the costs and treatment capabilities of the above systems and investigating process changes at the plant, M-T has determined that the biological treatment system proposed by its current consultant O'Brien and Gere represents the best method for achieving compliance with the Board's BOD₅ effluent limitations.

Hardship

M-T asserts that the arbitrary and unreasonable hardship that the Board found in PCB 86-223 continues to exist, and that denial would leave M-T with one of two options: shut down that part of the Ringwood plant operations which generate the polymer washwater discharge, losing approximately eighty percent of the Ringwood plant's production; or return to disposing of the polymer washwater at a permitted sanitary landfill. The additional costs associated with the landfill disposal of this wastestream are estimated to be \$550,000 per year. M-T is proposing a biological treatment system, at a cost of between \$500,000-\$700,000, which it believes will reduce the BOD₅ concentration in the Outfall 001A discharge to below the 30/60 limitation of Section 304.120(a), as well as the federal 24/64 BOD₅ effluent limitation.

Two issues remain: Whether the Board should require a performance bond and whether the variance should be back-dated. Regarding the performance bond, the Agency expressed its dissatisfaction with M-T's "slow pace toward compliance" noting that this is a second variance extension request, since M-T sought, and was granted, a construction start-up delay during its prior variance from January 31, 1988 to June 30, 1988, (though not extension of the term of variance itself, see Board Order of September 17, 1987, PCB 86-223), and now wants more time. Also, no significant progress has been made except for changing its

treatment plans, noting that, although plans and specifications were filed on November 18, 1988, no construction has commenced and compliance is not assured. (Agency Rec. p. 14,15).

M-T responds that it has made reasonable further progress. It has made diligent effort in-house, retained consultants, complied with all prior variance conditions, has a good past history of compliance, a technical solution has been difficult and time-consuming, and that the longer time needed for compliance does not create unfair advantage but, rather, cost M-T more time, money and problems. M-T also asserts that its financial ability to comply was never an issue and is already contractually committed to \$400,000, over half the total cost of the biological treatment system. (R. 27-29)

Regarding the back-dating of the variance, the Agency believes that retroactive variances should be denied as a matter of principle and, in any event, there is nothing in this particular case making it more or less appropriate. (R. 32,33)

M-T argues that Section 36 of the Act does not prohibit the Board from doing this, the Board has in fact done so, that, since their petition was timely filed on June 15, 1988, prior to the June 30, 1988 expiration of the prior variance, M-T would be unnecessarily subject to enforcement and failure to provide such relief would be contrary to the "general intent behind requesting the variance." (R. 31,32)

Finally, Dr. Louis Marchi expressed general concerns in his testimony, disputing how minimal impact determinations are made, particularly for chronic effects, particularly in that Dutch Creek empties into the Fox River which in turn supplies the City of Elgin's drinking water. The Agency noted that Dr. Marchi did not earlier ask for any document and had not read the whole Agency document with attachments prior to his testimony.

Board Conclusions

The Board finds that M-T has presented adequate proof that compliance with the Board's regulations concerning BOD₅ discharges would, for the term of this variance, impose an arbitrary or unreasonable hardship.

The environmental effects are not significant and M-T has persuasively demonstrated its hardship, particularly insofar as the need to formulate a new compliance effort resulted from unexpected and disappointing results from its prior compliance effort.

For reasons expressed earlier in this opinion, variance will be granted until December 31, 1989, with the conditions generally as proposed by M-T and the Agency. As also proposed, no interim

BOD₅ limits will be imposed; given the facts in this proceeding and the conditions imposed, the Board does not believe they are necessary.

The Board, in granting variance, is not ordering any permit modifications beyond March 31, 1989.

The Board will not order M-T to post a performance bond or other security to cover construction requirements; it does not view M-T's failure to initiate construction earlier as resulting from dilatory efforts or uncertain financial health. In so saying, the Board expects M-T to take all necessary steps to come into compliance. The Board also notes that it is presently considering requiring a performance bond or other security to assure completion of work as a standard condition of future variances where applicable.

The Board does not accept M-T's argument that its variance petition was timely filed. The petition would have been timely filed 120 days before expiration of a prior variance, which is the statutory time frame for Board decisions.

The Board also notes that its procedural rules regarding variance extensions 35 Ill. Adm. Code 104.123, states that variance extensions shall be a new petition for variance, subject to all requirements except that, regarding filing requirements, information from the prior variance may be incorporated. M-T's "general intent" argument is not persuasive. See also Rowe Foundry & Machine v. Illinois Environmental Protection Agency, PCB 88-21, February 23, 1989. However, the Board will backdate the variance to October 16, 1988, which is 120 days after M-T's initial filing. This retroactive date is in recognition of the fact that much of the delay was caused by the federal regulation question, the Agency's changed view as to the applicable standards, and also that M-T continued in the interim to pursue its compliance efforts, including construction plans.

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

ORDER

Morton Thiokol, Inc., Morton Chemical Division, is hereby granted variance from 35 Ill. Adm. Code 304.120(a), and 304.141(a) as they relate to effluent limitations for BOD₅ applicable to Outfall 001A at Petitioner's Ringwood Plant, subject to the following conditions:

- A. This variance shall expire on December 31, 1989.
- B. This variance shall apply only to Outfall 001(A).

- C. Petitioner shall continue to monitor and report all parameters for Outfall 001(A) as required by its NPDES permit, including BOD₅.
- D. Petitioner shall complete design and treatability studies, finalize design and obtain project approval, and apply to the Agency for a construction permit, by January 1, 1989 or within 14 days after grant of a variance in this proceeding, whichever is later, for a treatment system for Outfall 001A sufficient to comply with the effluent standard of 30 mg/l for BOD₅ as determined by the averaging rule of 35 Ill. Adm. Code 304.104. After March 31, 1989, this grant of variance shall not apply to any superseding permit limits required by USEPA regulation regarding BOD₅.
- E. Petitioner shall cause all equipment described in said construction permit to be delivered to its Ringwood plant's site by June 30, 1989.
- F. Petitioner shall complete construction of said treatment system by September 30, 1989.
- G. Petitioner shall complete testing of said treatment system, achieve required operating levels and begin operation, and achieve compliance with applicable BOD₅ effluent limits by December 31, 1989.
- H. Petitioner shall continue to report monthly on its progress in complying with this variance. Reports shall be submitted to the Agency concurrently with its Discharge Monitoring Reports.
- I. Petitioner shall continue to meet Final Effluent limits of 10 mg/l BOD₅ at Outfall 001, as well as all other effluent limits set in its NPDES permit.
- J) Within 45 days of the date of this Order, Petitioner shall execute and forward to Thomas Davis, Enforcement Programs, Illinois Environmental Protection Agency, 2200 Churchill Road, 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. The form of said Certification shall be as follows:
 - J) Within 45 days after the date of this Opinion and Order, Morton Thiokol Inc., Morton Chemical Division, Zinc shall execute and send to:

Illinois Environmental Protection Agency
Attention: Thomas Davis
Enforcement Programs
2200 Churchill Road
Springfield, IL 62794-9276

a certificate of acceptance of this variance by which it agrees to be bound by the terms and conditions contained herein. This variance will be void if Morton Thiokol to execute and forward the certificate within the 45-day period. The 45-day period shall be in abeyance for any period during which the matter is appealed. The form of the certification shall be as follows:

CERTIFICATION

I, (We), _____, having read the Order of the Illinois Pollution Control Board, in PCB 88-102, dated February 23, 1989, understand and accept the said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

Petitioner

By: Authorized Agent

Title

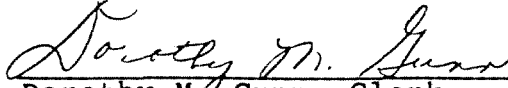
Date

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1987 ch. 111 1/2 par. 1041, provides for appeal of Final Orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

IT IS SO ORDERED.

J. D. Dumelle concurred.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 23rd day of February, 1989, by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board