

ILLINOIS POLLUTION CONTROL BOARD
October 17, 1974

MODINE MANUFACTURING CO.)
)
 v.) PCB 74-14
)
ENVIRONMENTAL PROTECTION AGENCY)

Mr. Richard J. Kissel, Attorney, on behalf of the Petitioner;
Mr. John T. Berbom and Mr. James Schlifke, Attorneys, on
behalf of the Environmental Protection Agency

OPINION AND ORDER OF THE BOARD (by Mr. Dumelle):

This Opinion and Order results from the Board's September 29, 1974 decision to reconsider the Opinion and Order entered on July 11, 1974 in the above named variance petition. Modine Manufacturing Company (Modine) filed a variance petition on January 9, 1974 seeking relief from Water Pollution Regulations Rules 208(a) as it applies to zinc until December, 1974, three stage lagoon exemption, and such other rules applicable so as to allow the Agency to grant construction and operating permits. The Agency filed a recommendation on February 21, 1974, recommending that the variance be denied. A hearing was held April 26, 1974 at which time Modine amended its variance petition. Briefs were submitted by both parties.

On July 11, 1974, the Board granted Modine certain relief consisting of a variance from Rules 408(a) as it applies to zinc and Rule 1002. The Board reclassified the unnamed tributary into which Modine discharges as a Secondary Contact Water as per Rule 302(k) at the point at which it receives Modine's discharge. A request for a variance from Rule 404 was dismissed as moot because the Board had reclassified the stream.

The Agency filed a Petition for Reconsideration on August 15, 1974. On September 11, 1974, Modine filed a Response to the Agency's Petition for Reconsideration. The Board voted to reconsider the July 11, 1974 Opinion

and Order on September 27, 1974. The case was then reassigned to Mr. Dumelle. This present Opinion will incorporate much of the original Opinion and Order as it applies to the description of Modine's facility and to the granting of the variance from Rules 408(a) and 1002.

Modine owns and operates a facility which produces air conditioning condenser and evaporator coils at Ringwood in McHenry County, Illinois. These coils are aluminum heat exchangers for the automotive, commercial, and residential market (R. 8). Modine employs approximately 180 people at an annual payroll of approximately \$1,300,000.

The instant variance request centers around discharges from Modine's present, and anticipated future, treatment system. Exhibits 1 and 2 are flow diagrams depicting present and future waste flow respectively. Mr. Schwartz (environmental officer for Modine) testified as to both of these exhibits.

Modine's Exhibit #1 shows that the waste flows are generated from a number of sources. One source is blowdown from a scrubber used as an air pollution device on Modine's Red-Ray Oven. Approximately 200 gpm of water is used as the scrubbant. This water is recirculated after neutralization with the exception of a 50 gpm blowdown which enters the first stage of a three-stage lagoon (R. 19). A second source of waste is in the form of quench water from Modine's Water Quench Chamber. This system consists of once through water used for cleaning and cooling of parts and is approximately on the order of 200 gpm. This quench water also goes to the head of the three-stage lagoon. The only other flow to the three-stage lagoon is domestic waste, which has been treated by extended aeration (R. 19). The three-stage lagoon presently handles about 390,000 gpd with the influent and effluent rate the same (R. 21). The discharge is then to an unnamed tributary to Dutch Creek. The present discharge is of the following nature (R. 23);

| | |
|------------------|------------------------------|
| Flow | 390,000 gpd |
| BOD5 | 5-10 ppm |
| D.O. | Neon Saturation 7-8 ppm |
| Zinc | 1-30 ppm |
| Fluoride | 2-2.5 ppm (calcium fluoride) |
| Suspended Solids | 4 ppm |
| Total Solids | 800 ppm |
| pH | 7-8 |

Modine's Exhibit #2 details the proposed waste flow. The essential difference is the 90-95% of the influent to the first lagoon will be recycled for reuse, leaving the net flow to the receiving stream of less than 40,000 gpd (R. 27).

Mr. Schwartz testified as to his experience with Modine's Clinton, Tennessee plant, which is presently using similar technology (R. 28). He related that the Clinton operation is essentially the same as the Ringwood, Illinois plant, with the exception of size. The Clinton plant was designed in 1972 and initially started up in October, 1973. Mr. Schwartz related that this waste operation is a novel approach (R. 33), and that is a main reason why the Illinois plant did not construct in parallel with the Clinton, Tennessee plant. Based on Clinton experience, Mr. Schwartz anticipates the following effluent criteria (R. 35):

| | |
|------------------|----------------------|
| Flow | 40,000 gpd |
| BOD5 | 5-10 ppm |
| D.O. | 8.0 (Petition Pg. 8) |
| Zinc | 1 ppm |
| Fluoride | 2.5 ppm |
| Suspended Solids | 4 ppm |
| Total Solids | 2000-2500 ppm |
| pH | 8.5 (Petition Pg. 8) |

The cost of these improvements was stated as about \$190,000 (R. 36), and would have a startup date of December of 1974.

Mr. Schwartz then went on to discuss what he felt were alternate technologies which could conceivably be used. The two alternates mentioned were reverse osmosis and total evaporation, both of which Mr. Schwartz felt were not feasible (R. 42). Mr. Donald Schwegel (Baxter & Woodman Engineering) also testified that he felt the alternatives were not feasible (R. 80).

Modine's Exhibit #3 is a map of the northeast region of Illinois (from Illinois Water Survey Bulletin 57). The unnamed tributary in question is not noted on the map. It was generally accepted that this would indicate a seven-day once-in-ten-year low flow of zero (R. 83, R. 93 Taylor). Mr. Robert Taylor (Environmental Protection Agency biologist) testified that in his normal round of duties he visits Modine approximately six to ten times per year, and that the tributary upstream of Modine's discharge has been without flow 35-40% of the time.

One of the major points of contention in the instant case is which classification shall be given to the tributary into which Modine discharges. From, the abovementioned expected effluent parameters, one can see that the applicable water standards will be met if the stream is considered secondary contact, but will not meet general water quality standards, e.g.:

| | <u>Modine's Expected Discharge</u> | <u>Rule 203</u> | <u>Rule 408</u> |
|------------------|------------------------------------|-----------------|-----------------|
| BOD5 | 5-10 ppm | 4 ppm* | 4 ppm* |
| Suspended Solids | 4 ppm | 5 ppm* | 5 ppm* |
| Zinc | 1 ppm | 1 ppm | 1 ppm |
| Fluoride | 2.5 ppm | 1.4 ppm | 2.5 ppm |
| Total Solids | 2200 ppm | 1000 ppm | 3500 ppm max |
| pH | 8.5 | 6.5-9.0 | 5-10 |

Part III of Chapter 3 defines secondary contact waters. Rule 302(k) (as amended February 14, 1974) states:

"Secondary Contact and Indigenous Aquatic Life Waters:
Secondary contact and indigenous aquatic life waters are those waters which will be appropriate for all secondary contact uses and which will be capable of supporting an indigenous aquatic life limited only by the physical configuration of the body of water, characteristics and origin of the water, and the presence of contaminants in amounts that do not exceed the applicable standards.

The following are designated as secondary contact and indigenous aquatic life waters;

(k) All waters in which, by reason of low flow or other conditions, a diversified aquatic biota cannot be satisfactorily maintained even in the absence of contaminants."

Rule 205 then states the criteria to which a secondary contact and indigenous aquatic life water must conform.

*If 404(f) applies, however, Pfeffer exception is 10 mg/l BOD5, 12 mg/l SS - and Petition is seeking a 404(f)(i) exception.

Modine contends that Rule 302(k) applies to its receiving stream. The burden of proof rests squarely with Modine. The Board in its Opinion on this matter said:

"Part III contains water use designations. All waters are designated for general use except those in the restricted category, which has here been broadened in response to testimony to include waters whose flow is too low to support aquatic life. This should relieve the burden of treatment beyond the effluent standards for discharges to intermittent streams. Such extra effort is difficult to justify when it will not result in a satisfactory aquatic life because of insufficient flow." (Vol. 3, p. 765).

Modine must show that a diversified aquatic biota cannot be maintained in the absence of contaminants in the unnamed tributary to Dutch Creek.

Modine's theory of reclassification centers on the historical seven-day ten-year low flow of zero and Dr. Wahtola's testimony regarding the lack of stability in the stream in question. Testimony and exhibits were presented by Dr. Wahtola of Limnetics, Inc., who was engaged by Modine to study the aquatic biota present and the chemical constituents present in the stream. The results of Dr. Wahtola's study was submitted as Modine's Exhibit 5. Concentrations for zinc and ammonia nitrogen are listed in excess of Water Quality Standards contained in Rule 203 (Modine Ex. 5, Tables I and IX). The contaminant levels shown as present in Modine's discharge and the decreasing levels as found by Dr. Wahtola indicate that Modine's discharge does raise the levels of contaminants in the unnamed tributary and in Dutch Creek (Modine Ex. 5). However, as of the date Dr. Wahtola tested, Modine's discharge was not causing or contributing to a violation in Dutch Creek of any water quality standards for the eight contaminants listed in Exhibit 5.

Dr. Wahtola's aquatic study was designed to observe members of the various trophic levels: the phytoplankton, zooplankton, benthos, and fish which were present. As a result of his aquatic study, Dr. Wahtola testified that he found a diversified aquatic biota present immediately downstream from the Modine plant on December 27, 1973, the date he sampled the stream (R. 116). Dr. Wahtola would have the Board expand the requirements of Rule 302(k) to encompass the concept of stability. Dr. Wahtola testified that due to the nature of the stream, he did not feel it could support a diversified aquatic biota at times and thus should fall under Rule 302(k). His reasoning is set out on pages 4 through 6 of the Board's former Opinion (R. 123-126).

In summary, Dr. Wahtola would include stability within any definition of or application of Rule 302(k). Dr. Wahtola stated that only aquatic environments which are free from stress (physical or chemical) and which are very old would truly support a diverse aquatic life (R. 123-126). He gave the deep ocean aquatic community as one which is relatively free from stress and thus very stable (R. 124). Lake Baikal was given as an example of a very old aquatic community which has a very large diversity because the genetic pool has remained throughout millions of years (R. 126). Dr. Wahtola stated that a United States lake, which was only ten thousand years old, would not be a very diverse system (R. 125). He then moved further down the stability scale and stated that a river system "as compared to a lake would not be considered as diverse" (R. 126). He concluded by stating that because the genetic pool would not have the opportunity in all instances to replenish and become diverse, that the stream in question would not through eons of time maintain diversity even though through sampling on any one day you could find a diverse aquatic community present (R. 126). The Board cannot accept this line of reasoning in the application of Rule 302(k). Applying this line of reason would lead to the unescapable result that every stream that has a historical seven-day ten-year low flow of zero would be reclassified even though a diversified aquatic biota was present. Such was not the Board's intent when Rule 302 (k) was adopted. No mention of "stability" is present in the Rule or in the Opinion accompanying the adoption of the regulation. Permanence or near permanence of the aquatic biota is not required.

Biological surveys were conducted by Mr. Matsunga, an Agency biologist, on March 23, and April 3, 1974. Evidence concerning these two days of surveys is contained in Agency Exhibits 6 and 5, respectively. These biological survey results clearly show that a diverse aquatic biota was present on both days when the surveys were conducted. Numerous types of microinvertebrate were found, including fish, both upstream and downstream of Modine's discharge (Agency Ex. 5 and 6). The organisms collected by Mr. Matsunga include those intolerant, moderately tolerant and tolerant to pollution (Agency Ex. 5 and 6). Fish life was observed by Mr. Matsunga in the unnamed tributary both upstream and downstream of the discharge point of Modine (Agency Ex. 6). This evidence, when compiled with that presented concerning Dr. Wahtola's study, shows the existence of a diversified aquatic biota in the unnamed tributary to Dutch Creek, on the three days the stream was observed (two days upstream and three days downstream of Modine's discharge).

Dr. Wahtola stated that the stream would not support a diversified aquatic biota when it was dry (R. 117). Dr. Wahtola testified on cross examination that if the stream never went dry below Modine's discharge, that it could "support" a diversified aquatic biota (R. 139). Dr. Wahtola was unable to testify as to whether the stream was ever dry below Modine's discharge (R. 138 and 139). Mr. Taylor, an Agency employee, testified that he had seen the stream without flow above Modine's discharge (R. 155).

The Agency presented sufficient evidence to rebut Dr. Wahtola's conclusion that the stream at the point of discharge should be reclassified as secondary contact. The Agency presented the results of a biological survey of the stream which found numerous microinvertebrates present upstream and downstream from Modine's discharge (Agency Ex. 5 and 6). The results from this sampling technical agree with those of Dr. Wahtola because the presence of microinvertebrate indicates that there are things to eat present. A food supply must be present for higher forms of life to exist (R. 181). Mr. Tucker, an Agency aquatic biologist, testified that finding of microinvertebrates implies that zooplankton, phytoplankton and fish exist in the aquatic biota (R. 182). Mr. Tucker agreed with Dr. Wahtola that different trophic levels need to exist in order that a diversified aquatic biota could exist (R. 181). The Agency clearly established that a diversified aquatic biota in fact existed in the unnamed tributary.

The Agency also presented evidence that aquatic life could remain within pools (R. 185) or continue to live in spring holes back in the bank and return once water began to flow (R. 186). Aestivation, the ability to continue to exist in the muds of a stream, while the stream is dry, was also discussed as a way that organisms could repopulate an intermittent stream (R. 186). In addition, organisms can drift downstream or migrate upstream to repopulate an area.

The Agency witnesses testified that a diversified aquatic biota was present, and that the potential for it to exist should be there (R. 184). This is a consistent limnological response because few if any small streams would maintain a diversified aquatic biota over their entire length; but would maintain a diversified aquatic biota in certain areas, and over the whole would have to be said to contain the potential to maintain a diversified aquatic biota. Mr. Tucker stated that a stream is a continually changing thing and as such is not stable (R. 182). He said that stability is not necessary to show that a diversified aquatic biota exists (R. 182).

As previously stated, the Board does not find that long term stability must be included with the definition or application of Rule 302(k) as suggested by Dr. Wahtola. In determining if Rule 302(k) should be invoked, the Board will first examine the evidence to ascertain if a diversified aquatic biota is present in the stream. In this case it was uncontroverted that such existed. If a diversified aquatic biota is found to exist, then the Board will examine the testimony to determine if it can be maintained. A finding of the existence and testimony of the potential that a diversified aquatic biota could be maintained would normally be controlling. Such was the testimony in this case.

The intent of Rule 302(k) was to provide relief where because of natural conditions, such as temperature, lack of habitat, flow, etc. a diversified aquatic biota could not be maintained. In the present case, this determination is not required because a diversified aquatic biota was found to be present. The Board finds that Petitioner's request for the reclassification of the unnamed tributary is not supported by sufficient evidence to warrant the application of Rule 302(k).

The next major point of contention is the applicability of Rule 404(f). Petitioner contends that it will be entitled to a 404(f)(i) exemption in that it operates a three-stage lagoon. If granted, this would allow discharges of 30 mg/l BOD5 and 37 mg/l S.S. to gain exception for a three-stage lagoon, the following four conditions must be met:

- A) The untreated waste load is less than 2500 population equivalent; and
- B) The source is sufficiently isolated that combining with other sources to aggregate 2500 population equivalent or more is not practicable; and
- C) The lagoons are properly constructed, maintained and operated: and
- D) The effluent does not, alone, or in combination, cause a violation of applicable water quality standards.

Each of these conditions must be studied separately for applicability.

Item (B) is generally accepted to have been met (Agency Brief Pg. 10-11.).

Item (C) was contested by the Agency. Under direct examination Mr. Schwartz testified that the lagoons are and will be properly maintained and operated (R. 44). The Agency, however, felt that the lagoon was not properly maintained and operated. The Agency offered little proof of this statement, nor did the Petitioner with the exception of the Schwartz statement. The Agency contended that results of the Matsunga tests show that the condition of the stream changes from unbalanced to semi-polluted across the Modine discharge point (covered in environmental impact portion of this Opinion), and that this could be due to poor lagoon operation (Brief Pg. 11). The Board had no strong indication that the lagoons are properly or improperly maintained. Had the Agency doubted the validity of Schwartz's statement, they had every opportunity to rebut it at hearing.

Item (D) is not met because the Board has rejected reclassification. Dr. Wahtola's testing found values for zinc and ammonia nitrogen in excess of water quality standards (Modine Ex. 5, Tables 1 and IX).

Item (A), in addition, does not seem to be met. This rule states that the untreated waste load must be less than 2500 P.E. (one P.E. = 100 gpd). In Petitioner's case the untreated waste load is 390,000 gpd or 3900 P.E. This load will be discharged even after the compliance plan is completed. One may argue that this definition is excessively strict in light of the fact that Petitioner intends to recycle 90% of its effluent. However, using this theory the calculation point would be at the head of the second stage lagoon.

The Board in adopting this rule noted that three-stage lagoons are "dependable" and economically reasonable." Opinion on R 70-8, 71-14, 71-20, . This language was incorporated to indicate that economics are a concern in allowing such an exemption. In the instant case the economics does not indicate that an exception allowing 30 mg/l BOD5 and 37 mg/l S.S. should be allowed. Our function is to preserve the environment, and granting such an exemption would not be in keeping with this dictate. Petitioner's discharge will meet a 5-10 mg/l BOD5 and 4 mg/l S.S. level which is well within the bounds of a Pfeiffer exemption of 10 mg/l BOD5 and 12 mg/l S.S. The Board feels that upon application for permit to the Agency, Petitioner has met the requirements for a 404(f)(ii) exemption, and that one should be granted. In light of the fact that no economic burden is placed on Petitioner, other than to operate its lagoon as it says it can, the strictest interpretation of Rule 404(c)(iii)(A) should be drawn. The Board therefore feels that no variance is required from Rule 404(f) in that under the dictates of 404(f) there is no present violation.

The only question left to be decided is whether Petitioner has fulfilled its burden under Section 35 of the Environmental Protection Act to be granted a variance from Rule 408 as it regards zinc and, because of the broad request for a variance, any other relief necessary for the Agency to grant operating and construction permits. We must then explore the areas of compliance plans, hardship, and environmental impact in reaching this decision.

Compliance Plan: As mentioned above, Petitioner has submitted a compliance plan which will reduce the zinc concentrations to within the applicable regulations. No compliance program absent reclassification was presented as to fluoride and total dissolved solids.

The delay of starting this compliance plan was explained by Mr. Schwartz by comparing the instant plan with that used in the Clinton, Tennessee plant. Mr. Schwartz claims that the concept of recycle was novel to the industry (R. 33), and that it would not have been economically feasible to upgrade both (Clinton and Ringwood) plants at the same time (R. 51). This was because of the novelty of the processes the risk was rather high, and two mistakes could have been made.

Petitioner, after work was completed on Clinton, in November, 1973, engaged a consulting firm to detail plans for a similar addition to the Ringwood plant. Mr. Schwartz feels the possibility of a December, 1974 startup is very good (R. 55).

Due to the novelty of this process, the Board feels that the technical approach taken to gain compliance - e.g., learning from experience and then applying it to Ringwood - was viable and shows the necessary elements to be termed good faith.

Hardship: In its Petition for variance, Petitioner alleges that an arbitrary and unreasonable hardship would ensue should variance be denied, due to the following situations:

1. Without a variance Modine, would be subject to an enforcement case which would jeopardize its operation and effect the livelihood of 158 employees.
2. Modine's contribution to the tax base and gross income of the community could be curtailed.

The Agency does not refute these allegations, but rather states that alternate technology was not explored in sufficient detail to show undue hardship would result if it were used. The Board notes that the thrust of alternate technology is directed toward compliance with Rule 203. The Board finds that, although marginal, a hardship case is evident.

Environmental Impact: As mentioned, many findings in this case were difficult to render. Quite a bit of our decision rests on the potential for environmental harm presently or anticipated to be caused by Petitioner's discharges.

The Agency introduced Exhibits #5 and #6 which are summaries of stream analyses made around Modine's discharge. The conclusion drawn from these exhibits, was that the area directly above Modine's discharge was termed unbalanced, and those directly below and 1/4 mile downstream semi-polluted and polluted, respectively. These determinations were based on the existence or lack of existence of tolerant species. The following definitions help in interpreting these findings:

"Balanced environment: one in which conditions are maintained which are capable of supporting a variety of organisms, mostly intolerant species from diversified taxonomic groups.

Unbalanced environment: one in which the balance of life as described for a balanced environment has been disrupted but not destroyed. The population numbers of some of the intolerant forms are reduced, and an increase becomes apparent in some of the more tolerant forms.

Semi-polluted environment: one in which the balance of life found in a balanced environment is destroyed. Intolerant forms are completely absent or reduced to a minimum. The environment is predominantly tolerant forms.

Polluted environment: one in which only the very tolerant forms are able to exist. These are usually present in great numbers unless excluded from the environment by severe conditions."

(R. Pp. 162-163)

Under cross-examination there was much discussion as to how tolerant and non-tolerant organisms are determined. From the record it was clear that there is some possibility of error which could have led to misclassification of the streams. The following examples of testimony reflect this:

"Q. Let's take Page C1 of EPA Exhibit No. 6, line 20, which has, 'Midge Larvae, ll'.

A. I would not be able to say.

Q. You mean just identifying a midge larvae doesn't mean it is tolerant, does it?

A. As a general group, midges are tolerant, but --

Q. Could there be some midges in this sample that were intolerant?

A. There might have been.

Q. Could it be ll?

A. It is possible.

Q. So that it is possible that that is ll intolerant organisms rather than tolerant, isn't it?

A. That is possible."

(R. 174-175)

However, Mr. Tucker states that midge larvae are almost universally classified as intolerant and that the sample and classification are correct, e.g.:

"Q. In fact, how many of the midge larvae, or approximately how many of the midge larvae species are tolerant, and how many are intolerant?

A. I don't know the exact number. But I only know of one midge larva that is intolerant, and it is a little skinny red one.

Q. And about how many species of midge larvae that you know of?

A. Oh, upward of 30 or 40."

(R.189)

Mr. Tucker also stated that his determinations were based upon 18 years of experience plus input from review of available literature (R. 157).

The inference from these discussions is that Modine's discharge as it exists is at least contributing to the streams degradation. It is very important to note, however, that both Tucker and Matsunga (both Agency witnesses) tended to hedge on whether Modine's discharge was the direct cause of the apparent degradation (R. 183, R. 167 ("probable cause not definitive")).

Dr. Wahtola testified (R. 127) that in his opinion it is well documented that zinc concentrations presently found in Modine's discharge can be lethal; however, at the time of his sampling he found no adverse effects on the aquatic biota, and Modine's discharge had very little detectable effect on the stream. It must be remembered that the compliance plan calls for a 1.0 mg/l zinc concentration by December, 1974, which would be acceptable. Dr. Wahtola next addressed himself to the fluoride discharges (R. 128). He cited a study conducted by the Colorado School of Mines (and work by McLee & Wolfe of California) stating that calcium fluoride is much less toxic than other forms of fluoride. It is substantiated in the record that Modine's discharge is high in calcium (R. 23).

Modine lacks a program for compliance with Rule 203(f) as to fluorides and total dissolved solids because the Board has found that Rule 302(k) does not apply. Normally this would defeat a variance request and, therefore, would prohibit the attainment of permits. However, in the present case, Modine is currently in compliance with Rule 203(f) as it applies to total dissolved solids. Modine's discharge will only exceed the limits once they begin to recycle their effluent. Such conservation of ground water is to be commended. The Board takes judicial notice of the declining ground water table present in northeastern Illinois. The Board does not approve of the use of dilution to achieve compliance. Because of Rule 402, Modine must produce an effluent that complies with the water quality standards found in Rule 203(f). This alternate effluent standard for total dissolved solids is 1000 mg/l. Rule 401(b) provides relief for dischargers whose discharge effluent limitations because they engage in practices which cause background concentrations of contaminants to be increased because of evaporation. This is the reverse of the old adage of "dilution is the solution to pollution". Modine's projected recycle system is also the reverse of dilution in that because they are taking steps to conserve ground water by recirculation, their effluent will result in a violation of the numerical limitation for suspended solids and fluoride. The Board decided to apply the logic found in Rule 401(b) to evaluate the effects of Modine's recycle system in order to grant a variance from this numerical effluent limitation of 1000 mg/l of total dissolved solids.

Because the testimony as to the reduced toxicity of calcium fluoride and because the Board is currently considering a regulatory proposal, R 73-15, that proposes to raise the water quality standard for fluoride above that expected by Modine, the Board has decided to grant Modine a variance from Rule 203(f) as it applied to fluoride. Modine is currently in compliance with the effluent standard for fluoride but will violate the standard when they start up their recycle system in December of 1974.

From all of the above the Board draws the conclusion that after completion of the compliance plan Modine's discharge should have a negligible effect on the receiving stream. It can also be concluded that in the interim period (between now and December, 1974) the effect on the stream should be minor. The Board will on the basis of facts elicited, grant the requested variance relief. The variance from Rule 203(f) as it applies to fluoride and total dissolved solids will become effective when Modine begins its recycle system.

A bond will not be required because Modine should have already completed the program to recycle its effluent. Any future request to extend this variance must show that Modine's discharge has not caused a degradation of the stream and must contain a thorough exploration of alternate compliance alternatives.

This Opinion constitutes the Board's findings of facts and conclusions of law.

IT IS THE ORDER OF THE Pollution Control Board that:

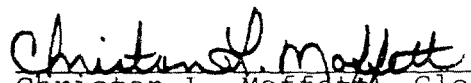
1. The unnamed tributary into which Modine discharges is not classified as secondary contact water as per Rule 302(k).
2. Variance from Rule 404 is dismissed as moot in that the Board determines that under the dictates of Rule 404(f)(ii) no violation exists.
3. Variance is granted to Modine from Rule 408(a) as it applies to zinc until January 15, 1974.
4. Variance is granted to Modine from Rule 203(f) as it applies to fluoride and total dissolved solids until October 10, 1975.
5. Variance is granted from Rule 1002 so as to allow Petitioner to file a project completion schedule.

The granting of the variance from Rules 203(f) and 408(a) is conditioned upon the filing of construction and operating permit applications; and Modine's discharge is not to exceed 2.5 mg/l of fluoride and 2200 mg/l of total dissolved solids.

IT IS SO ORDERED.

Mr. Marder dissents.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 17th day of October, 1974 by a vote of 4-1.


Christan L. Moffett, Clerk
Illinois Pollution Control Board