

ILLINOIS POLLUTION CONTROL BOARD
June 23, 1971

Spartan Printing Company Division)
World Color Press, Inc.)
vs.)
Environmental Protection Agency)

PCB 71-19

Harold S. Goodman and David M. Conn, Attorneys for the Petitioner
John Stanley McCreery, Attorney for the Agency.

Opinion of the Board (by Mr. Kissel):

On February 12, 1971, Spartan Printing Company, World Color Press, Inc. (Spartan) filed a petition for variance with the Board asking for additional time within which to construct certain waste treatment facilities at its plant in Sparta, Illinois. The petition alleges that Spartan generates liquid wastes from its printing operation; that the "very nature of the waste makes treatment to bring the discharge to levels satisfactory with current stream standards difficult;" that Spartan has developed, after a long period of study, a two phase treatment system which, when installed, would substantially reduce the contaminants discharged by Spartan; that, based on current commitments, phase 1 of the project can be completed by June 30, 1971, and, phase 2 can be completed by March 30, 1972. The Environmental Protection Agency filed a recommendation with the Board recommending that the variance be granted, but under the following conditions:

- 1) That phase 1 and 2 of the project be completed within 6 months of the entry of the Board's decision;
- 2) That Spartan pay a \$50,000 penalty;
- 3) That Spartan file a performance bond of \$300,000;
- 4) That during the installation of phase 1 and 2 Spartan not launder wipcloths on the premises; and
- 5) That during the installation of phase 1 and 2 Spartan not produce offset plates on the premises.

A hearing was held on the petition on May 13 and 14, 1971, in Sparta, Illinois, before Timothy Harker, the designated hearing officer.

Spartan operates an offset printing facility in Sparta, Illinois. It employs 1486 people (40% of whom come from the City of Sparta and the remainder from an area 15 to 20 miles from the plant) and has an annual payroll of \$11.6 million. Spartan's business consists of the printing, by use of the web offset press, monthly magazines, covering such subjects as photography, the outdoors, confession magazines and men's magazines. These magazines are printed for persons who then distribute them nationally. The printing operation consists of three phases: 1) the preparatory operation which includes making plates; 2) the printing operation, which involves the use of presses, ink and paper; and 3) the binding, stitching assembly, wrapping and shipping of the magazines to the distributor.

The plates (called "deep etch aluminum" plates) presently used by Spartan are merely a sheet of aluminum which has been coated with a light-sensitive material. The surface of the plate is etched with the aid of a copperized solution, to produce a rough surface which is the design of the material to be printed. The "non-printing" area of the plates are treated so that they attract water, and the "printing" area of the plate attracts the oily ink which is impressed onto the paper in the offset press. Another type of plate can be used in the process, but is not presently used by Spartan. These are called "pre-sensitized" plates and do not need the chemical treatment required for the "deep etch aluminum" plates. While the "pre-sensitized" plates are less expensive to produce and take less time, they don't last very long--only an average of 1000 impressions can be obtained from these plates, while the "deep etch" plates can produce up to 275,000 impressions.

The offset process used by Spartan is a web type, which means that the paper on which the printing is done is fed into the offset press on a continuous roll, and after printing the proper sections are cut. This process was first installed at the Spartan plant in 1956. Spartan has 21 presses at the Sparta facility.

Besides the chemical solutions discharged in the plate operation, there is another major area of chemical discharge. In the operation Spartan employees are directed to use shop towels to clean any area of the plant, including the plates and the machines. As a result these towels become saturated with the inks and the chemicals in the plant. All in all Spartan uses over 7 million towels per year in the operation. These towels are laundered at the plant site, for a total annual operating cost of about \$56,000. The discharge from the laundry operation constitutes a major portion of the waste from the plant.

Presently, Spartan does not treat any of its industrial wastes. It is estimated that the present flow of industrial waste from the

Spartan plant is 45.4 gallons per minute. The contaminants contained in the raw waste are somewhat staggering and are listed in the Spartan petition for variance as follows:

	<u>Concentration</u>
C.O.D.	3000 - 8000 mg/l
B.O.D.	0 - 3000 mg/l
Iron	35 ± mg/l
Copper	3 - 28 mg/l
Zinc	42 ± mg/l
Chromium	26 ± mg/l
Silver	0.05 to 0.1 mg/l
Ph.	6.4 to 7.2
Turbidity	500 to 700
Suspended Solids	315 ± mg/l

Spartan has known, and has admitted, that its wastes have been for some time severely affecting the ditch into which the wastes are deposited and Maxwell Creek, which eventually receives the flow from the aforementioned ditch. A review of the history of Spartan's effort, and its dealing with the Sanitary Water Board and the Agency is necessary here for a complete understanding of this case.

The story begins in 1965. In August 4 of that year, Clarence Klassen, Technical Secretary to the Sanitary Water Board, directed a letter to Spartan (Pet. Ex. J-1) stating that a sample had been taken of the Spartan waste and that the sample was "black, of thick consistency, and apparently almost pure ink with some solvent mixed in." The letter went on to say that the "outlet stream downstream from this discharge indicated that there were obnoxious odors and definite signs of pollution." Spartan was told to eliminate "immediately . . . any pollutional effects" to the stream. After an exchange of letters in which Spartan asked for a meeting with the technical staff of the Sanitary Water Board, a meeting was finally held on December 12, 1966, at the Spartan plant. The record does not disclose exactly what was discussed at that December meeting, but within a month from that date, Spartan hired E. M. Webb, a consulting engineer from Carbondale. It is apparent that Webb was told by Spartan to find a solution to its waste problem "without any strings attached." After an initial examination, Webb advised Spartan that it had an "extremely complex problem." Webb was still studying the problem when another letter was received by Spartan from Klassen. This letter, dated August 10, 1967, acknowledged the fact that Webb had been hired by Spartan to find an answer to the problem, but that "no action had been taken . . . and the discharge is still causing pollution of the receiving stream." Spartan was told in that letter to take "positive steps" to "eliminate or properly treat the discharge." Spartan had 30 days within which to

advise the Sanitary Water Board of what action it was going to take. Spartan's first reaction was to attempt to negotiate with the City of Sparta to take the wastes into the municipal waste treatment plant. This eventually failed after the City hired engineers to study the problem and concluded that it could not handle the waste stream for some undefined reason. In a letter dated February 1, 1968, Spartan advised Klassen of a specific time schedule (for the first time) for completion of a project which would involve complete treatment of the wastes from the Spartan plant. Spartan admitted in that letter that "progress has been a bit slow in connection with the pollution problem at our plant". (Pet. Ex. J-9) The date of completion stated in the letter was August 15, 1968. Spartan advised Klassen in a letter dated June 27, 1968, that Webb had run into "certain unique problems" with Spartan's waste (Pet. Ex. J-11) and needed more time. Speaking on behalf of the Sanitary Water Board, on July 10, 1968, Klassen approved the new schedule which called for completion of the project on January 21, 1969. (Pet. Ex. J-12) Two months later, Webb was still trying to solve the "complex" problem, and he hired Dr. J. W. Chen of Southern Illinois University to do a "treatability study" of the Spartan waste. (Pet. Ex. J-13) This study was to be completed within 6 months. A new schedule was approved by the Sanitary Water Board calling for the completion of the waste treatment facility by August 29, 1969, although Klassen expressed concern that a year would transpire before the waste treatment facility would be put in operation. (Pet. Ex. J-14) Needless to say, the facility was not complete on the date promised, and ordered, and as a result, Klassen directed another letter to Spartan on December 30, 1969, indicating that the latest sample taken from the Spartan plant indicated a COD of 8340 milligrams per liter. A meeting was requested with Spartan. (Pet. Ex. J-17) A preliminary engineering study was submitted to Klassen by Webb on January 7, 1970. This study was, according to the last schedule ordered by the Sanitary Water Board, to be completed by September 25, 1968. A meeting was held at the Sanitary Water Board offices on January 15, 1970, to discuss the proposed plans, and as a result of that meeting, Spartan committed to a completion schedule which would have the treatment facility in operation within nine months of that date (6 for Phase I and 3 thereafter for Phase II). (Pet. Ex. J-19) This schedule was confirmed by Klassen in a letter dated February 11, 1970. (Pet. Ex. J-20) Purchase orders were entered into by Spartan to begin installation of the waste treatment facility. Spartan by the present variance petition requests additional time within which to complete the waste treatment facilities--phase 1 by June 30, 1971, and phase 2 by March 30, 1972.

The industrial waste discharged by Spartan has been described as complex by all of the witnesses in the case. Apparently (although one witness disagrees) the treatment process eventually settled upon was a unique one for the type of waste discharged by Spartan. It is indeed disturbing to this Board that technology for the treatment

of the Spartan type waste is not readily available, since there are obviously many printing plants (some in Illinois) using the kind of process employed by Spartan at its Sparta plant. It is even more disturbing to hear that the reason treatment technology has not been developed is because many of the printing facilities are located in urban areas and they merely dump their wastes into the municipal sewer system without any treatment. The treatment system eventually designed for Spartan may set an example for others in the same business. It is, as has been said, a two phase process. Phase 1 employs the use of chemicals to flocculate the waste, creating a sludge which can be taken out by sedimentation. Also, Phase 1 provides for passing the de-sludged waste through a Zurn micro-strainer. (The latter device was suggested as a substitute by the Sanitary Water Board in its January 15, 1970, meeting with Webb in place of a sand filter. In addition, the SWB suggested that a more complete recycle system be installed so that the waste could, if necessary, be recycled through the treatment plant--phase 1--again to obtain the best treatment.) The unique feature of the process to be installed by Spartan is phase 2. This phase employs a moving bed carbon adsorption unit for the treatment of a heavy metal waste. While moving bed carbon adsorption units have been used to treat organic waste, up to this point (at least the record tells us) this unit has not been used for the removal or reduction of heavy metals.

Before discussing the merits of this case, it is necessary to rule on some preliminary matters. The first is a preliminary motion made by Spartan's attorney to disallow the Agency recommendation in this case because it is so "punitive in nature that they amount to punishment for violation of a law which we never have received proper notice, adequate charges" (R. 16). We must deny that motion. The attorney for Spartan was apparently upset because the Agency first advised Spartan to file for a variance and Spartan decided to take that advice. Spartan assumed that the Agency would "go along" with Spartan as the Sanitary Water Board technical staff had previously done. Spartan had no right to assume that that would be the case. The Agency is obligated under the Environmental Protection Act to file recommendations in all variance cases filed with the Board. The Agency, notwithstanding previous dealings with the person who files for a variance, must, if this system is to work, be free to make that kind of recommendation which it thinks in good conscience is required in any case. To dismiss the recommendation for the reasons stated, or implied, by Spartan would severely limit the independence of the Agency in making recommendations. This we cannot do. We feel further that the Agency's recommendations do not violate any constitutional right due Spartan. This is not an enforcement case brought by the Agency, rather it is a variance case which the Board must decide on the evidence presented in the record. This is what the Board intends to do in all cases, and it will be done in this one.

Spartan made another motion which does have some merit. When the Agency began to call witnesses in this case, Spartan made a motion that those witnesses should not be allowed to testify, or that the matter be continued until Spartan had had a chance to examine the witnesses. Spartan had, in the pre-hearing stages of this case, requested that the hearing officer order the Agency to supply to Spartan a list of witnesses, as called for by Rule 313(b) of the Procedural Rules of the Board. That Rule provides as follows:

- " (b) The Hearing Officer shall order the following discovery upon written request of any party:
 - (i) list of witnesses who may be called at the hearing"

On March 25, 1971, the Hearing Officer in this case did in fact require the Agency to make such a list available to Spartan. Pursuant to this order a representative of the Agency telephoned the attorney for Spartan and advised him that two witnesses (McSwiggin and Teske) would be called by the Agency. In fact, the Agency put on additional witnesses at the hearing. We cannot allow this practice. The Agency must follow the Procedural Rules of the Board, just as all other parties before the Board must follow our rules. The purpose of Rule 313 is to allow parties to find out in advance what witnesses for the other side are going to say. This knowledge not only reduces the surprise at the time of the hearing, and therefore results in a more informative and factual hearing, but may in certain cases lead to disposition of matters by agreement of the parties and approval of the Board. We therefore hold that in this case the testimony of the witnesses of the Agency, except for the testimony of Teske and McSwiggin, shall not be considered by this Board as part of the record in this case. We are not unmindful of the fact that in this case the hearing officer held that the witnesses offered no surprise to Spartan in that the witnesses' testimony was very much similar to that given by other witnesses. But Rule 313(b)(i) does exist and if it is to have any meaning, it must be enforced, particularly in a case where the Agency gave Spartan the names of two witnesses, and no others, and particularly in a case when the Agency did not argue, or show, that these "new" witnesses were being put on in rebuttal to evidence introduced by Spartan and not contemplated by the Agency.

Even without the testimony of the Agency witnesses, however, this case can be decided by the Board. The first major issue, of course, is whether the variance should be granted. The Environmental Protection Act states that a variance shall be granted to a petitioner if he proves that compliance with the Act, the rules and regulations promulgated thereunder, or an order of the Board creates an "arbitrary and unreasonable hardship". Section 35, Environmental Protection Act. We have held on numerous occasions that in determining whether such a hardship exists we will balance the benefits and detriments to the public against the benefits and detriments to the petitioner, and further we have said that this is not an equal balance. We will

look to the benefits to be afforded to the public as being the strongest of the factors. After a review of the evidence presented, we feel that the variance should be granted in this case upon certain conditions, which will be dealt with separately. Spartan presently has a program which will substantially reduce its discharge of contaminants into the waterways of the State of Illinois. The program will be partially accomplished by June 30, 1971, when Phase 1 will be completed. This will remove between 70 and 75% of the contaminants generated by Spartan. Phase 2 will be completed by March 30, 1972, and bring the plant into compliance with the present orders under which it is operating. While there will be some discharge of contaminants into the stream during the time when the project is being completed, we feel that this is permissible since the alternative to not granting the variance would be a shut down of the plant. The economic impact in this community would be too great to allow for the little benefit to be gained in the stream if the discharges were continued for just a short time--one week for phase 1. Spartan employs almost 1500 people with an annual payroll of \$11.6 million. Shutting down the plant would surely put all of these people out of work, thereby severely affecting the community. Perhaps, this would be a viable alternative if the pollution caused by the industry were so great and the prospect was that it would continue, unabated, for some time. But this is not the case here.

we do feel that there should be certain conditions imposed here. The first is a money penalty. The record adequately demonstrates that Spartan has taken too much time in figuring out what it should do about the problem with its wastes. Spartan recognized back in 1966 that it had a pollution problem, when it responded to the letters of the Sanitary Water Board. It will take this industry almost six years to solve its problem, and while we could agree that the last phase of this treatment process is indeed a unique one, certainly that part of the project which comprises phase 1 could have been designed and completed a long time ago. Since this part of the process would remove between 70 and 75% of the waste from the waste stream, the construction of this phase of the project would have alleviated the pollution problem in the ditch which Spartan admits exists and has existed for some time. One witness stated that the treatability study could have been done in a year, rather than 18 months (R.352-3). We agree with that witness and we feel that it was incumbent upon Spartan to push its consultant as hard as it could to get the job done. It would be no excuse to this Board for Spartan to merely point to its consultant and say that he failed to do the job in time. Spartan, as is true with other persons who hire outsiders to do the work, cannot hide behind another's failure to get the job done in time. (Marblehead Lime Co. v. EPA, PCB 70-52 and City of Mattoon v. EPA, PCB 71-8)

We feel that a penalty can be imposed here as a condition to the grant of a variance, and we have so held in a number of other cases. (Marquette Cement Co. v. EPA, PCB 70-23 and GAF Corporation v. EPA, PCB 71-11) We do feel that such penalties must be geared in amount to

the degree of laxity shown by the industry, municipality or sanitary district. While we do feel a penalty is called for in this case, we do not agree with the amount suggested by the Agency. We feel that many of the delays occasioned by Sparta were in fact excused by the Sanitary Water Board, and it is only the most recent delay which is not. It is the performance in 1970 on which the penalty should be based, that is the inability to complete the project within the time last granted by the Sanitary Water Board--the completion date was to be nine months after February 11, 1970, which would have been November 11, 1970. The few design suggestions made by the Sanitary Water Board are no excuse for not completing the project on time. This failure to complete the project on time is the basis for imposing a condition on the grant of this variance that Spartan pay a penalty of \$10,000.

The second condition which we would impose upon Spartan is the posting of a performance bond with the Agency in the amount of \$200,000, which is the approximate cost of construction of phase 2 of the project. The Act requires that in any case where additional time is allowed for the completion of a project the Board must require the posting of a performance bond or other security. Section 36A, Environmental Protection Act. The bond should be based upon the total cost of phase 2 of the project because phase 1 will be virtually completed when this opinion and order are issued.

The Agency has made additional recommendations on which we should condition the granting of this variance. We disagree with all those additional recommendations for the following reasons:

- 1) The first recommendation of the Agency was that the complete installation of phase 1 and 2 be finished within six months from the date of entry of the decision by the Board. The Agency did not support this rather severe time schedule with any witnesses who could actually say that this operation could be completed within that time. The strongest case the Agency made was that phase 1 and 2 should be constructed at the same time, and that it was not necessary to complete phase 1, then do a pilot study to determine how big the carbon columns of phase 2 should be. But there is sufficient engineering testimony in the record that the most sensible way to construct this waste treatment facility is to complete phase 1, then do a pilot study to determine what the sizing of phase 2 should be, then install phase 2. Perhaps, this Board would make a different decision if there was an extended period of time over which phase 2 of the project would be completed. But phase 1 will be completed within a few days and according to Spartan's witnesses 70 to 75% of the contaminants will be removed by that part of the waste treatment system. The harm to the stream will be greatly minimized after June 30, 1971, and therefore, we can allow the additional time to complete phase 2.

2) The Agency recommended that during the installation period Spartan should not be allowed to launder shop towels, or produce the deep etch aluminum plates. It is clear from the record that alternatives to both of these practices are available at a higher cost, and with a significant loss of efficiency in operation--the towels could be laundered in St. Louis, and the pre-sensitized plates could be used. Neither alternative seems to be a viable one, and both would create an arbitrary or unreasonable hardship, as contemplated by the Act. Regarding the laundering of towels, the Agency did not indicate in testimony what the cost would be to launder the towels elsewhere. It was suggested that the towels be laundered in St. Louis, where the discharge would be given little treatment in that sewer system. As for the plates, we are convinced that Spartan would like to use the pre-sensitized plates because they are economical and easy to make. However, Spartan recognizes that they are unreliable and not very durable. To use those plates in the Spartan operation would, according to the Spartan testimony, severely impair Spartan's ability to meet the demanding time schedules of putting out magazines on certain days. This problem would be made much worse by requiring shipment of the plates from St. Louis. Furthermore, as to both points, the fact that phase 1 of the plant will be in operation in a very short time means that these wastes will receive some treatment in the very near future.

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

ORDER

It is the order of the Board that the request of Spartan Printing for a variance be granted subject to the following conditions:

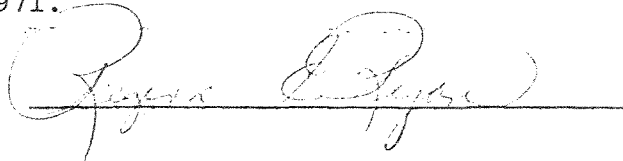
1. Phase 1 of the treatment system shall be installed and in operation by July 1, 1971.
2. Phase 2 of the treatment system shall be installed and in operation by March 30, 1972.
3. Spartan shall pay to the State of Illinois, on or before July 28, 1971, the sum of \$10,000 as a penalty for delay in completing the treatment facilities.
4. Spartan Printing shall post with the Environmental Protection Agency on or before July 28, 1971, in such form as is satisfactory to the Agency a bond or other security in the amount of \$200,000, which sum shall be forfeited to the State of Illinois in the event that the conditions of the order are violated or the printing plant is operated without an extension of the variance and without Phase 1 and 2 in operation on said above-mentioned dates.

5. During the period this variance is in effect, Spartan Printing shall not increase the polluttional nature of its discharge either in strength or volume.

6. Spartan shall file with the Board and the Agency progress reports on September 30, 1971, December 30, 1971, and March 30, 1972.

7. The failure of the petitioner to adhere to any of the conditions of this order shall be grounds for revocation of the variance.

I, Regina E. Ryan, Clerk of the Pollution Control Board, certify that the Board adopted the above opinion and order this 24th day of June, 1971.

A handwritten signature in cursive script, appearing to read "Regina E. Ryan", is written over a horizontal line.