

ILLINOIS POLLUTION CONTROL BOARD  
October 10, 1985

VILLAGE OF MORTON,	}	
	}	
Petitioner,	}	
	}	
v.	}	PCB 85-153
	}	
ILLINOIS ENVIRONMENTAL	}	
PROTECTION AGENCY,	}	
	}	
Respondent.	}	

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

This provisional variance request comes before the Board upon an October 10, 1985 Recommendation of the Illinois Environmental Protection Agency (Agency). The Agency recommends that a 45-day provisional variance be granted to the Village of Morton (Morton) from 35 Ill. Adm. Code 304.141(a) to allow the Petitioner to bypass its sewage treatment plant (STP) #3 to a polishing lagoon so that its STP #3 can be dewatered and repaired. (Rec. 1).

The Petitioner owns and operates STP #3 which has a design average flow of 0.5 million gallons per day (MGD). This contact stabilization package plant has a polishing lagoon which is about 1.3 acres in size. Effluent from STP #3 is discharged to Farm Creek pursuant to NPDES Permit #IL0030007. (Rec. 1).

The Village of Morton's NPDES Permit provides that STP #3 must meet effluent limitations of 10 milligrams per liter (mg/l) for biochemical oxygen demand (BOD) and 12 mg/l for total suspended solids (TSS). (Rec. 1).

During the past year, the Petitioner's discharge monitoring reports to the Agency pertaining to BOD and TSS in its effluent have indicated the following concentrations:

<u>Month</u>	<u>Flow (MGD)</u>	<u>BOD (mg/l)</u>		<u>TSS (mg/l)</u>	
		<u>Influent</u>	<u>Effluent</u>	<u>Influent</u>	<u>Effluent</u>
July, 1985	0.236	138	11.0	165	8.0
June, 1985	0.235	176	14.9	171	8.5
May, 1985	0.251	176	18.8	205	17.8
April, 1985	0.370	123	15.8	138	10.2
March, 1985	0.496	97	10.9	100	6.6
February, 1985	0.410	185	5.5	207	4.5
January, 1985	0.331	198	8.4	277	8.5
December, 1984	0.370	121	6.5	117	5.0
November, 1984	0.369	181	8.0	258	6.7
October, 1984	0.285	223	10.6	275	7.0

<u>Month</u>	<u>Flow (MGD)</u>	<u>BOD (mg/l)</u>		<u>TSS (mg/l)</u>	
		<u>Influent</u>	<u>Effluent</u>	<u>Influent</u>	<u>Effluent</u>
September, 1984	0.204	226	20.1	214	12.9
August, 1984	<u>0.226</u>	<u>204</u>	<u>27.4</u>	<u>242</u>	<u>13.1</u>
Average	0.315	170.7	13.2	197.4	9.1

( Rec. 2 ).

In its letter to the Agency dated October 7, 1985, the Petitioner indicated that it first discovered on October 4, 1985 that its activated sludge system was draining into its aerobic digester at STP #3. Because of this problem, when the Petitioner wastes solids from the activated sludge process to its aerobic digester, a head builds up which forces the contents of the aerobic digester to back up into the aeration process. Accordingly, the net result is equivalent to not wasting sludge at all and is totally counterproductive and inefficient. (Rec. 2). To avoid the back up from occurring, Morton has not wasted any sludge at its STP #3 since it first discovered the problem on October 4, 1985. The Petitioner estimates that, because of the solids buildup in the treatment process, the effluent from STP #3 will degrade by October 14, 1985. (Rec. 2). The Agency has stated that "normally the mixed liquor suspended solids in the activated sludge process is 2000 - 3000 mg/l, which is significantly higher than the concentration in the raw sewage". (Rec. 2).

The Village of Morton plans to direct the incoming raw sewage to the polishing lagoon in order to bypass the package treatment unit. To allow the Petitioner to examine the internal tank structures, locate the source of the problem, and make the necessary repairs, the contents of the package treatment unit will be pumped to two sludge holding lagoons. (Rec. 2).

The Petitioner has identified, considered, and discussed two possible alternatives to the previously delineated bypassing procedure. The first alternative is to construct a temporary treatment facility to use during the time period that repairs on the existing treatment unit are made. However, the construction of such a temporary unit would take too long and cost too much money according to the Petitioner. The second alternative would be to hire a tank truck and driver to haul the raw sewage wasted to a landfill on a daily basis. Morton contends that "the cost of renting the truck and the additional cost of landfilling would soon exceed the entire operation budget for the system" and concludes that neither of the two alternatives are "very practical solutions". (See: page 2 of the letter to the Agency dated October 7, 1985).

Although the Petitioner did not request any specific effluent limitations for the effluent to be discharged from its STP #3 during the provisional variance period, the Agency believes that "due to the short detention time (6 - 8 days) which the influent will spend in polishing lagoon, that the equivalent of primary treatment (approximately 30% BOD removal and 50% TSS removal) is the best that can be expected while the package treatment unit is out of service." (Rec. 3). The Agency recommends that the Board set effluent limitations for Morton's STP #3 of 120 mg/l BOD and 100 mg/l TSS as 30 day averages during the provisional variance period based on the average influent concentrations for BOD and TSS indicated in the Petitioner's discharge monitoring reports to the Agency. (Rec. 3). The Board agrees with the Agency in this regard and will impose this condition as item #4 of the Board's Order.

In reference to the environmental impact of bypassing the package treatment unit and treating the influent in the polishing lagoon, the Petitioner has stated that it believes the impact would be minimal because it is now a cooler period of the year and the production of odors would be decreased. (Rec. 3). The Agency also believes that the environmental impact will be minimal and indicates that:

"The Agency, although not in total agreement with Petitioner's reasoning for stating that the environmental impact will be minimal, has determined that, in the long run, the environmental impact of removing the package treatment unit from service and repairing it now will be minimized. The Agency's reasoning is that this will get the problem corrected and Petitioner's STP #3 back in operation rather than allow a chronic problem to develop which will entail the same solution to solve, i.e., bypass and remove the package treatment unit from service...The Agency bases this position on the fact that to not resolve and correct this problem now won't make it go away, it will still be there and will have to be faced at some point in time. Additionally, by doing the work now it is possible to repair the unit, get it back into operation, and give it a chance to reach stable operating conditions prior to the onset of cold weather. The alternative would be to wait until spring and have a substandard effluent for 6 months or longer."

(Rec. 3-4).

The Agency has therefore concluded that compliance with the applicable NPDES Permit standards while bypassing the package treatment unit and treating the influent in the polishing lagoon would impose an arbitrary or unreasonable hardship upon the Village of Morton. (Rec. 3). The Agency has recommended that the Board grant the Petitioner a provisional variance from 35

Ill. Adm. Code 304.141(a), subject to specified conditions.

Pursuant to Section 35(b) of the Illinois Environmental Protection Act, the Board hereby grants the provisional variance as recommended.

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

ORDER

The Village of Morton is hereby granted a provisional variance from 35 Ill. Adm. Code 304.141(a) to allow bypassing of its package treatment unit, subject to the following conditions:

1. This provisional variance shall commence upon initiation of bypassing of the package treatment unit and continue for a period of 45 days, or until 2 weeks after the package treatment unit is returned to service, whichever occurs first.

2. The Petitioner shall notify Mr. Ken Newman of the Agency's Peoria Regional Office via telephone at 309/691-2200 when bypassing of the package treatment unit is begun and when it is returned to service. Written confirmation of each notification shall be sent within 5 days to:

Illinois Environmental Protection Agency  
5415 N. University  
Peoria, Illinois 61614  
Attn: Mr. Ken Newman

3. The Petitioner shall monitor the effluent from its STP #3 on a daily basis for the parameters listed in NPDES Permit #IL0030007. The results of each sample shall be recorded and submitted to the Agency with the discharge monitoring report for the Petitioner's STP #3.

4. During the time period of this provisional variance, the effluent from the Petitioner's STP #3 shall be limited to 120 mg/l BOD and 100 mg/l TSS as 30 day averages.

5. The contents of the package treatment unit shall be pumped by the Petitioner to the 2 sludge holding pits or disposed of in another manner acceptable to the Agency.

6. During the time period of this provisional variance, the Petitioner shall operate its wastewater treatment facility so as to produce the best effluent practicable. Additionally, the Petitioner shall perform the necessary repair work on the package treatment unit as expeditiously as possible so as to minimize the period of time that it is out of service.

7. Within 10 days of the date of the Board's Order, the Petitioner shall execute a Certificate of Acceptance and

Agreement which shall be sent to Mr. James Frost of the Agency at the following address:

Mr. James Frost  
Illinois Environmental Protection Agency  
Division of Water Pollution Control  
Compliance Assurance Section  
2200 Churchill Road  
Springfield, Illinois 62706

This certification shall have the following form:

I, (We), \_\_\_\_\_, having read the Order of the Illinois Pollution Control Board in PCB 85-153, dated October 10, 1985, 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

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 10<sup>th</sup> day of October, 1985 by vote of 7-0.

Dorothy M. Gunn  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board