ILLINOIS POLLUTION CONTROL BOARD
November 8, 1972

ENVIRONMENTAL PROTECTION AGENCY, Complainant,	)	
v.	)	PCB 72-175
CITY OF WEST FRANKFORT, Respondent.	)	

Delbert D. Haschemeyer, Assistant Attorney General, for the Environmental Protection Agency;
Don R. Lucas, for Respondent.

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

This is an enforcement proceeding brought by the Agency against the City of West Frankfort, owner and operator of a sewage treatment plant located at West Frankfort, and the effluent from which discharges into a small creek known as Big Ditch, which is tributary to the Middle Fork of The Big Muddy River.

The Complaint, filed April 27, 1972, charges Respondent with violations of Rules 1.03(a)(objectionable sludge deposits), 1.03(b) (floating debris), 1.03(c) (nuisance conditions as to color, odor), 1.08(4) (excessive water temperature changes), 1.08(10b1) (failure to remove settleable solids), 1.08(10b2) (failure to remove floating debris), 1.08(10b3) (failure to remove color, odor, turbidity), and 1.08(11c) (failure to obtain best possible level of treatment) of SWB-14, remaining in effect pursuant to Section 49(c) of the Environmental Protection Act; Rule 1.02 of SWB-2, also remaining in effect pursuant to Section 49(c) of the Act, and Section 12(a) of the Act.

With two exceptions, the proof that the violations occurred is overwhelming.

Although the record contains no clear statement on the point, it seems reasonable to conclude that the City is spending a minimum on repairs to the plant, hoping to get by until a new facility can be built. It appears that bids were opened for the construction of a new plant shortly before the public hearing (R. 152). The new facility will cost $1,130,000 (R. 177), of which the City's share will be $430,000 (R. 177), and is expected to be built in one to one and a half years (R. 184).

Respondent's plant was designed about 25 years ago to provide primary and secondary treatment for approximately 10,000 population. Although the present population is only about 8,800, so that there appears to be no hydraulic overloading, the plant is old and in a state of disrepair. Raw sewage enters the plant from the City sanitary sewers and passes through a bar screen on its way to primary settling tanks. The supernatant liquid then passes through a Parshall flume - a measuring device which gives flow rates - and into a wet well from which it is pumped to one of the plant's two trickling filters. After the liquid leaves the trickling filters, it goes to final settling tanks, and then through discharge pipes into the Big Ditch. The plant also has primary and secondary sludge digestors.

Rule 1.08(11c) of SWB-14 created a regulatory requirement that each plant be operated to provide the best degree of treatment consistent with design limitations. The following catalogue of operational defects amply illustrates Respondent's failure to comply with this Rule. On several dates in 1971 and 1972, including August 8, 1972, the day of the public hearing in this matter, the Respondent's sewage treatment plant was in an incredible state of disrepair. Among the problems were a bar gate that had been rusted in a fixed position for at least seven years (R. 54); a sludge digestor roof that had been in a collapsed condition for at least seven years (R. 55); a bar screen that clogs up as often as every five minutes (R. 59) and is cleared approximately every half hour (R. 60); a trickling filter that leaks heavy, steady streams (Agency Exhibit 11); pine needles falling into the sludge digestor and clogging the operation (R. 68); and electrical circuitry so poor that the plant supervisor was afraid fuses and coils would blow if he used all of the equipment in the plant (R. 37, 38). All these problems undoubtedly contributed to the poor quality effluent the plant produced; to the consistent by-passing of raw sewage to the Big Ditch; and to the resultant pollution of the Big Ditch.

Also relevant to plant operations are the provisions of SWB-2. Rule 1.02 of SWB-2 requires that the operator of a sewage treatment plant be properly certified. Respondent stipulated that as of the date of the hearing, August 8, 1972, that the supervisor of the plant did not have proper certification (R. 22-23).

The quality of the plant's effluent was very poor. For example, BOD_5 levels of 39 to 140 mg./l were measured, as were suspended solids levels of 25 to 56 mg./l. Also, fecal coliform count in the effluent at its point of discharge into the Big Ditch was never less than 1,300,000 per 100 ml (Agency Exhibit 5), and ranged as high as 5,400,000 per 100 ml (Agency Exhibit 6). It should be noted that on two days for which raw sewage entering

the plant was tested, January 13 and January 14, 1972, it had a fecal coliform count of 5,300,000 per 100 ml and 5,500,000 per 100 ml, respectively.

The consistent by-passing had a significant adverse effect on the stream quality. This effect is best illustrated by the samples collected on January 13, 1972, a day during which significant by-passing occurred. Stream quality approximately 100 feet downstream, at a location below both the effluent and by-pass discharges into the stream, was poorer than the effluent quality for the following parameters: BOD_5, suspended solids, and fecal coliform. Comparison of downstream with upstream quality on that same date showed BOD_5 was 30 times greater downstream than upstream, fecal coliform was 1,700 times greater downstream than upstream, total phosphorus was 10 times greater downstream than upstream, and ammonia was more than 15 times greater downstream than upstream (Agency Exhibit 10). The samples collected on January 14, 1972, show comparable results (Agency Exhibit 9).

The poor quality effluent and the consistent by-passing had dramatic and damaging effects on the biota of the Big Ditch. Mr. William Tucker, a biologist for the Agency, testified as to a biological survey he conducted in the Big Ditch on January 28, 1972 (Agency Exhibit 18). Approximately 100 feet upstream from the plant, there was a modest tally of aquatic life present, consisting of midge larvae, sow bugs, worms and snails. Approximately one-half mile downstream of the plant, no life was observed. Instead, floating solids skimmed along the water and more than one foot of sludge had carpeted the river bottom.

As for The Big Muddy River itself, approximately two miles downstream of the plant and nearly one and one-half miles downstream of the confluence of the Big Ditch with The Middle Fork of the Big Muddy, one midge larvae was found. Sludge a foot deep still carpeted the river bottom. But upstream of the confluence, the survey showed normal aquatic life conditions.

Comprehensive analyses made of the Big Ditch on January 13 and 14, 1972, by Mr. John Gordon of the Agency and Mr. Roger Walker of the Agency, included temperature measurements both upstream and downstream of the sewage treatment plant (Agency Exhibits 10 and 9, respectively). On January 13, 1972, the water temperature approximately 30 yards downstream of the plant was 13° F. higher than the water temperature upstream. On January 14, 1972, the downstream increase was 16° F. Rule 1.08(4) of SWB-14 prohibits changes in excess of 5° F. from natural water temperature. However, there was no evidence that the measured water temperature upstream on either day was in fact the natural water temperature of Big Ditch. We are therefore unable to find a violation of Rule 1.08(4) of SWB-14.

The frequent by-passing of raw sewage from the sanitary sewer makes it obvious that the sludge deposits, with the accompanying septic odor (Agency Exhibit 16), are attributable to municipal discharges in violation of Rule 1.03(a) of SWB-14. These sludge deposits were observed on January 13, 1972, January 14, 1972, January 28, 1972 and June 21, 1972 (Agency Exhibits 10, 9, 18 and 14, respectively).

Unsightly floating debris, scum and other floating materials were found in the Big Ditch downstream of the plant on the same four days the sludge deposits were observed. Accordingly, we find that the Respondent violated Rule 1.03(b) of SWB-14. Highly visible setteable solids were also noted on the same four days, giving rise to our finding that Respondent was in violation of Rule 1.08 (10b1) of SWB-14.

The Respondent's facility did not provide for the removal of all floating debris, scum or sludge solids in violation of Rule 1.08 (10b2), and did not provide for the removal of color and turbidity below obvious levels in violation of Rule 1.08 (10b3), on March 2, 1971 (R. 37), August 7, 1972 (R. 39) and Agusut 8, 1972 (R. 118), in addition to being in violation of these two rules on the four dates previously discussed.

The Respondent has operated its facility in a manner so remote from methods whereby best possible treatment would have occurred, within design limitations, on each day discussed, that we find there have been repeated violations of Rule 1.08(11c). We find the Respondent to have caused or allowed water pollution in violation of Section 12(a) of the Act on each day discussed thus far.

Complainant did not, however, prove a violation of Rule 1.03(c) of SWB-14. While there was evidence as to color and odor resulting from municipal discharge, there were no complaining citizen witnesses at the public hearing and we find the record contains insufficient evidence that a nuisance was created, apart from the violations described above.

Turning now to the question of remedies, it is apparent that the Respondent did little to correct the long-standing and well-documented deficiencies in its sewage treatment plant. Yet the City advances certain arguments in mitigation of penalties. In 1968, the City forbade discharge of oil into the sanitary sewer system by two filling stations. On another occasion, the City either bought or rebuilt a pump motor. The City also made occasional and minor electrical repairs, "trying to keep it more or less taped together until we can replace it". (R. 164). According to the City Clerk, the maintenance expenditures averaged approximately $15,000 per year, exclusive of wages, for the last five years. (R. 197).

Some difficulty to the sewage treatment plant was said to be caused by road construction by the State which resulted in increased runoff to Big Ditch and apparently threatened inundation of the plant.

We find these arguments unpersuasive for the most part. There is no evidence as to what repairs were actually made for the $15,000 per year spent; clearly whatever repairs were made were inadequate. As for the runoff-road construction excuse, the plant was deficient before the road construction, during the construction, after the construction, and is deficient today, although the runoff problem has been solved. In 1967 the City determined that costs of repair of the facility would be about the same as costs of building a new one (R. 145, 159). Five years later, on June 23, 1972, bids were opened for the construction of the new facility. In the interim, an example of maintenance was described as follows:

> "Q. (by counsel for the EPA), Did he ever warn you or say anything to you about the gas coming off the top of that digestor as being explosive?
>
> A. (by the Respondent's plant operator), Yes, sir.
>
> Q. What did he tell you about that?
>
> A. We had put signs around there, no smoking or nothing" (R. 64-65).

We are confronted with a situation where the Respondent has been knowingly in gross violation of the law for several years. The Respondent is a municipality, and thus can be said to have only limited funds available for repair work. The Respondent at long last appears to be moving toward compliance by constructing a new facility.

Although the problem of arriving at an appropriate sanction is difficult, we believe a substantial penalty is justified because of the long standing nature of the violations and their severity. For the repeated violations of SWB-2, SWB-14 and the Act, we hereby levy a penalty of $2,500, consistent with prior decisions of this Board (see City of Springfield v. EPA, PCB70-55, 1 PCB 397 and Glovka v. NSSD, PCB71-269, 3 PCB 647).

While we are pleased that the City of West Frankfort has finally moved toward a long term solution, the construction of the new facility, we must insist that interim measures be employed to correct the present deficiencies of the existing facility. Most of the problems seem to result from inadequate plant maintenance. For example, freeing the rusted bar gate and improving the bar screen should help solve the raw sewage bypass problem. Repairs such as this should have been made in the past. We insist that they be made in the very near future. Unfortunately,

the record is quiet as to what interim measures should be implemented, and when they can be completed. For this reason, our Order herein provides for Respondent to submit appropriate plans for correcting the deficiencies to the Agency and to the Board.

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

IT IS THE ORDER of the Pollution Control Board that:

1. Penalty in the amount of $2,500 is assessed against the Respondent for violations of Rules 1.03(a), 1.03(b), 1.08(10b1), 1.08(10b2), 1.08(10b3) and 1.08(11c) of SWB-14; Rule 1.02 of SWB-2; and Section 12(a) of the Environmental Protection Act. Payment shall be made within 35 days by certified check payable to the State of Illinois, and sent to: Fiscal Services Division, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706.

2. (a) Respondent shall submit to the Agency within 30 days of the date of this Order plans to correct the deficiencies discussed herein, including eliminating by-passing of sewage; eliminating depositing of sludge on the river bottom; and freeing the river from debris, scum, color, turbidity, suspended solids and other unsigntly floating materials.

(b) The Agency shall approve or reject Respondent's interim improvement plans within 10 days of receipt by the Agency of said plans.

(c) Respondent shall resubmit to the Agency, within 10 days of receipt by Respondent of the Agency's response, revised plans, if necessary, in accordance with the Agency's response.

(d) Respondent shall submit to the Board within 60 days of this Order approved plans for interim control, and shall have implemented said plans within 90 days of entry of this Order.

(e) The Board retains jurisdiction of this cause for such further proceedings as may be necessary consistent with this Opinion and Order.

I, Christan L. Moffett, Clerk of the Pollution Control Board, certify that the above Opinion and Order was adopted on the 7th day of December, 1972, by a vote of 4 to 0.

Christan L. Moffett