

ILLINOIS POLLUTION CONTROL BOARD  
August 2, 1971

STANDARD BRANDS, INC. )  
 )  
 v. ) PCB 71-98  
 )  
 ENVIRONMENTAL PROTECTION AGENCY )  
 )

Mr. Paul Johnson, Standard Brands, Inc.  
on behalf of the petitioner

Mr. Delbert D. Haschemeyer  
on behalf of the Environmental Protection Agency

OPINION OF THE BOARD (by Mr. Dumelle)

Standard Brands, Inc. (Standard) filed a petition for variance on May 5, 1971 seeking to be exempt from the operation of certain water pollution regulations relating to the discharge of material containing excessive amounts of biological oxygen demand (BOD) and other contaminants. Specifically the petitioner asked for an extension of the November 1972 deadline by which the treatment facilities at its plant in Pekin, Illinois were due to be operating and further asked that the prohibitions of Section 12(a) of the Environmental Protection Act (Act) and Sections 103(c), 103(d), 1.08 (10) and 1.08 (11) of the Illinois Sanitary Water Board Rules and Regulations SWB-8 (SWB-8) and superceding regulations be inapplicable until the proposed treatment facilities are completed. The Environmental Protection Agency (EPA) countered Standard's petition with a recommendation filed on June 22, 1971. The EPA asked that the petition be denied and, in the alternative, if the request for variance was granted that the following conditions be made part of the grant: (1) payment of a money penalty, (2) immediate commencement of installation of adequate treatment facilities, (3) posting of a performance bond, (4) submittal of monthly progress reports, and (5) limitation of the variance grant to one year.

We grant the requested variance for one year, until August 1, 1972, subject to conditions outlined in this opinion and specified in the Board's Order of this date.

Standard is a corporation engaged in food processing operations on an international scale with plants in the U.S., Canada, Europe and Latin America. Total worldwide sales in 1970 were approximately

\$1,120,000,000 (EPA Ex.1). Standard's plant at Pekin produces baker's yeast, malt and grain extracts, and other products used in the baking industry. The company has five similar plants throughout the United States in its Fleischmann Manufacturing Division (R.16, 18, 23). At Pekin the approximate annual consumption of raw materials is 33,000 tons of molasses, 2-3,000 tons each of ammonia, corn, and barley and 600 tons of malt sprouts (petition, sec. II). The Pekin complex is located in an unincorporated portion of Tazewell County, approximately 1/4 mile south of the Pekin city limits on the east bank of the Illinois River. In the general area of petitioner's operations are a power plant and The Quaker Oats and American Distilling Company plants. Residences are located approximately 1/2 mile to the southeast.

Standard's aqueous waste can be divided into four categories, (1) concentrated process waste, (2) dilute process waste, (3) cooling water and (4) sanitary waste. The plant's concentrated wastes are presently treated prior to discharge into the Illinois River by treatment facilities installed in 1940 consisting of anaerobic digesters designed to reduce the BOD content of the treated waste by 85%. The wastes are primarily carbohydrates and protein materials, residual molasses wastes, in an average daily flow of 3,500,000 gallons. In 1969 Standard commenced a program to upgrade its treatment facilities. The upgrading program was approved by the Illinois Sanitary Water Board, one of this Board's predecessors, in 1969 with a schedule calling for completion of pilot plant studies by March of 1970, submission of plans and specifications by December, 1970 and completion of construction by December of 1971. Standard is presently prepared to comply with the December 1971 completion deadline. It has completed construction on the first phase of the 1969 program which consisted of upgrading the BOD removal capacity of the existing digesters. Thus, late in 1970 the company was proceeding with its plans to install a lagoon treatment system when it became aware of proposed new regulations which could not be met with the lagoon method of treatment (R.35). Very soon after learning of the new regulations Standard decided to install an evaporation treatment system similar to installations planned or under construction at Standard plants in Peekskill, New York, and Sumner, Washington (R.25-26). The scheduled completion date of the evaporation treatment facilities is November 1972 at which time full compliance with both the existing and currently proposed standard will be achieved. The evaporation treatment system is estimated to cost \$3,000,000 while \$850,000 is the estimated cost for the lagoon system (R.68-69). A useful by-product, molasses residium, is expected from the evaporator system which the company can sell for a return of \$60,000 to \$90,000 annually (R.34). Beyond that annual operating costs of the evaporation system are estimated to be at least \$10,000 more than the amount returned on product recovered (R.134). The system will also provide for water re-use and thus save well water for the company (R.38).

Mr. Leonard Lipton, Division Engineer for Standard testified that the effluent from the anaerobic digesters presently in use had a BOD concentration of about 1800 ppm (R.117-118). Curiously in its original

petition the company had reported an average BOD level of 510 ppm and suspended solids content of 600 ppm associated with a daily effluent of 3,500,000 gallons (Petition, sec. III). Samples taken by the EPA at the digester discharge line showed BOD concentrations of 1161 mg/l on May 26, 1971, approximately 3 weeks after the company filed their petition, and 936 mg/l on June 15, 1971. Suspended solids concentrations on the above two dates were 1110 mg/l and 610 mg/l respectively (EPA Ex.6, Ex.7, R.188 et seq.). Further with regard to the effluent sample taken on May 26, Mr. Thomas Rinkasch, a sanitarian with the EPA, testified as to its character stating that it was a very dark brown color and had "somewhat of a hydrogen sulfide odor" (R.188). Mr. Rinkasch described the above as a normal discharge from the company's operations (R.190).

Mr. Calvin Badding, also a sanitarian with the EPA, visited the plant on August 6, 1970 in response to a complaint and observed a "reddish brown liquid" having a "very sweet, rotten" odor being discharged from the plant into a ditch (R.178). Mr. Badding returned to the plant on August 7, August 10 and September 1, 1970 as well as other times later in the year. The sample which Mr. Badding obtained from the drain ditch on September 1, 1970 had a BOD concentration of 732 mg/l and suspended solids of 255 mg/l (EPA Ex.5, R.180).

The dilute process wastes have also been found to be in violation of the existing and proposed regulations. The dilute wastes consist of tank washings, floor washings and other such intermittent non-process sources. In the proposed treatment program the sources will be collected and treated separately from the concentrated wastes treated by the evaporation system. Samples of the dilute waste stream taken on June 15, 1971, before and after rectification of some plant malfunction, show BOD concentrations of 232 and 144 mg/l and suspended solids concentrations of 104 and 16 mg/l (EPA Ex.7b,7g, R.198). The dilute process waste stream accounts for about 30% of the BOD load with the bulk of the pollutional load (70%) being the concentrated process waste (R.109).

The effluent standard in the present regulation is 30 mg/l for BOD and 35 mg/l for suspended solids. The proposed standard limits BOD to 20 mg/l and suspended solids to 25 mg/l. Surely, of greater significance in this case is the fact that the proposed new standards spell out the philosophy that dilution is not the solution to pollution. Regarding dilution the proposed standard provides:<sup>1]</sup>

Dilution of the effluent from a waste treatment plant, or from any individual waste source, is not acceptable as a method of treatment of wastes in order to meet the standards set forth in this part. Rather, it shall be the obligation of any person discharging contaminants of any kind to the waters of the state to provide the

<sup>1]</sup> Revision of July 12, 1971 to Paragraph 1 of Proposed Effluent Standards, R70-8

the best degree of treatment of wastes consistent with technological feasibility, economic reasonableness and sound engineering judgment. In making determinations as to what kind of treatment is the "best degree of treatment" within the meaning of this paragraph, any person shall consider the following:

- 1) what degree of waste reduction can be achieved by process change, improved housekeeping, and recovery of individual waste components for reuse; and
- 2) whether individual process waste water streams should be segregated or combined.

In any case, measurement of contaminant concentrations to determine compliance with the effluent criteria shall be made at the point immediately following the final treatment process and before mixture with other waters, unless another point is designated by the agency in any individual permit, after consideration of the elements contained in this paragraph.

The hardship in this case, compliance with the present approved schedule for facilities with the likely result of inadequate facilities, is a peculiar one which we have not had occasion to deal with in any previous case. Proceeding with the present plan of improved biological treatment will result in a system incapable of meeting the proposed new standards. Changing horses at this point in the stream will enable Standard to proceed with a system which will meet the probable new standards. The most desirable course would appear to be to allow the company to proceed with the superior method of treatment but to ensure that it does so with the maximum feasible safeguards to abate pollution in the interim engineering and construction period. Standard sought this variance to allow it to cease work on a waste treatment system which will be obsolete the moment it is completed and design and install a substantially more expensive treatment process which will fully meet the more rigid proposed effluent standards. The company stated in its petition that "if [the variance] is not granted in substantially the form submitted and if the proposed regulations are adopted, there appears to be no alternative other than closing the operations at Pekin thereby eliminating approximately 230 positions with an annual payroll in excess of \$2.2 million." (Petition, sec.VI). The company, however, modified this harsh conclusion at the hearing to the effect that the continuation of the Pekin operation would have to be reevaluated should the requested variance be denied (R.57-58).

Any person concerned about the total environment whether as a member of a public service board or agency or as an interested citizen cannot but be impressed with the proposed evaporator

waste treatment system. The proposed methodology manifests a concern for the total environment that too often is paid only lip service. By removing the molasses solids with the evaporation system, the company is not only eliminating a waste product it is creating a useful, salable by-product. Additionally it is reclaiming and re-using a quantity of water which it would normally remove from the ground supply in the area. Last but certainly far from least it will be eliminating an odor problem about which the company appears to be relatively unconcerned. Presumably, the plant's waste streams, after the installation of the treatment systems and compliance with this State's effluent regulations, will not be odor-bearing.

To the extent that we are favorably impressed with Standard's proposed treatment system we are equally distressed with the history of procrastination in this case. The Sanitary Water Board first advised Standard that their waste treatment facilities were inadequate way back in 1963 (R.167). By any measure this company has taken far too long to clean up its mess. Yet the record shows that these years of delay have been officially sanctioned. It is our purpose at this point to emphatically state that the protracted period of delay in this case is at an end.

We grant a variance in this case, limited in duration to one year and subject to several conditions. The first limitation we will place on this grant is a periodic reporting requirement. Progress reports are to be submitted quarterly. Periodic progress reports are necessary as a means of checking compliance with program schedules. The reports should detail progress to date and fully document and explain significant deviations from the program as originally planned. The first report shall cover the period from the present through September 30, 1971. Standard should submit such reports to the Environmental Protection Agency and the Board a reasonable time after the expiration of the calendar quarter but in no case shall this period extend beyond three weeks. We do not wish to be in the position, a year from now, of discovering for the first time that there have been further delays. For the same reason, we shall insist not only that the company aim toward ultimate compliance by November 1972 but that it meet several interim deadlines, in accord with its petition and proof at the hearing, in order to give us intermediate checkpoints against which to measure progress. As regards the installation of the evaporation system we shall require that the engineering phase be complete by September 30, 1971, that bidding be complete by April 30, 1972, and that major equipment delivery be complete by June 30, 1972. As regards the dilute process waste we shall require Standard to report to the Board and the Environmental Protection Agency within 60 days complete schedule details of its plans for dealing with this 30% component of the plant's polluting effluent.

Since this is a case in which the hardship is temporary and the reason for the variance is the need for time in which to install treatment facilities, the Act (§ 36(a)) requires the posting of security to assure that the company meets the dates it has set. We have required security in comparable past cases (See Ozark-Mahoning v. EPA, PCB 70-19), and statutory bond requirements are in fact quite common and accepted in other fields. The purpose of the bond requirement is to provide an additional incentive to the variance holder to meet his deadlines, by imposing the threat of forfeiture if he does not. The amount must be high enough to make it more unattractive to default than to spend the money for control facilities. In this case we shall require the posting of a security in the amount of \$3,000,000; the approximate cost of the treatment facilities. One third of the amount is to be forfeited in the event of default of any one of the interim deadlines of September 30, 1971, April 30, 1972 and June 30, 1972.

As a Board we are uninformed of the particular temporary treatment expedients which would be apt in this situation. Chemical additives, process changes or the installation of devices such as temporary oxygen aerators may be employed to alleviate the polluttional conditions until the proposed system is completed. As a further condition of this variance we will require Standard to make a report within 60 days as to the feasibility of temporary measures which can be used at the plant. Should the company either through its own resources or its consultants find that one or more temporary measures are feasible and reasonable its report should include a schedule for using temporary facilities.

Apart from the need for treatment of the plant's wastes because of their magnitude we are cognizant of another particular pollution burden put on the Illinois River. A recent study<sup>2]</sup> of the LaGrange pool, an area of the river downstream from Pekin, indicated the existence of a severe oxygen sag in the pool manifested by a pattern of observed values of dissolved oxygen of less than 2 mg/l. A graph in the report depicts dissolved oxygen concentrations as a function of time-of-travel in days starting at Peoria Lock and Dam.<sup>3]</sup> From an initial concentration of 4 mg/l the dissolved oxygen concentrations plunge to less than 2 for the first day and remain depressed below 2 for the ensuing 5 days. It is obvious that the full impact of Standard's pollution load will be felt in the pool. The water quality standard for dissolved oxygen is at least 4 mg/l at all times for this section of the Illinois River. By this reference we are not attempting to directly correlate Standard's discharges with the condition nor are we meaning to implicate BOD as the major contributor to the stressful condition. We are merely pointing to the fact that the Illinois River in the LaGrange pool is greatly overloaded with

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2] Butts, T.A., Schnepfer, D.H., and Evans, R.L.  
Dissolved Oxygen Resources and Waste Assimilative Capacity of the LaGrange Pool, Illinois River, Illinois State Water Survey Division (1970).

3] Id.p.3

pollutants and merits particular attention with regard to oxygen consuming wastes.

The Act states that any variance granted under the Act is limited to one year and then may be extended only if satisfactory progress has been shown. We grant this variance to terminate on August 1, 1972. Should the petitioner need a further exemption from prosecution beyond that date it should take the precaution of filing a further petition some 90 days before the date of termination of the instant grant.

In granting this variance we must note that it is applicable to waterborne contaminants only. The company has not asked for and we are not granting a freedom from prosecution relating to complaints about airborne odor. In a previous case involving the Pekin plant we had occasion to discuss one of Standard's odor problems (See Standard Brands, Inc. v. EPA, PCB 71-3). We reiterate here a suggestion implicit in that previous case. If it is feasible to do something to counteract the presence of odor in the area the company should do something about it without waiting for the incentive of an enforcement action.

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

ORDER


The Board having considered the petition, recommendation, transcript and exhibits in this proceeding hereby grants a variance to Standard Brands, Inc. subject to the following conditions:

1. Variance from the Environmental Protection Act and regulations relating to effluent quality as regards BOD and suspended solids is granted until August 1, 1972 during which time Standard shall be proceeding with its program to abate water pollution at its Pekin plant. Any further variance shall be petitioned for at least 90 days prior to August 1, 1972.
2. Standard shall meet the following schedule deadlines as regards the installation of its proposed evaporator system:
  - (a) September 30, 1971 - complete engineering
  - (b) April 30, 1972 - complete bidding
  - (c) June 30, 1972 - complete major equipment delivery
3. Standard shall submit to the Board and the Environmental Protection Agency within 60 days a complete schedule relating to the abatement of the pollution caused by Standard's dilute process wastes.
4. Standard shall submit to the Environmental Protection Agency and the Board quarterly reports on the progress of their program to bring all plant effluents into compliance with the regulations. The first report shall cover the period from the present through September 30, 1971 with each subsequent report covering the calendar quarter. The reports shall be submitted in a reasonable time, not to exceed 3 weeks, after the last date reported on.
5. Standard shall post with the Environmental Protection Agency on or before September 1, 1971, and in such form as the Agency may find satisfactory, a bond or other adequate security in the total amount of \$3,000,000, which sum shall be forfeited pro rata, one third of the total amount for each default, to the State of Illinois in the event that the interim deadlines of September 30, 1971, April 30, 1972, and June 30, 1972 are defaulted.
6. Standard shall submit to the Board and the Environmental Protection Agency within 60 days a report on the feasibility of temporary treatment facilities or pollution abatement by process changes or other expedients. If some form of pollution abatement is found to be feasible in the interim pending completion of the proposed facilities Standard's report shall include a schedule for implementing such a temporary abatement program.



7. Failure to adhere to any of the conditions of this variance shall be grounds for revocation of the variance.

I, Regina E. Ryan, Clerk of the Illinois Pollution Control Board, hereby certify that the Board adopted the above Opinion and Order on this 2nd day of August, 1971.

  
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Regina E. Ryan, Clerk  
Illinois Pollution Control Board