

ILLINOIS POLLUTION CONTROL BOARD
February 26, 1976

ENVIRONMENTAL PROTECTION AGENCY,)
Complainant,)
)
v.) PCB 73-403
)
WELLS MANUFACTURING COMPANY,)
an Illinois corporation,)
Respondent.)

- and -

CITIZENS FOR A BETTER ENVIRONMENT,)
an Illinois not-for-profit corporation,)
Complainant,)
)
v.) PCB 73-418
)
WELLS MANUFACTURING COMPANY,)
an Illinois corporation,)
Respondent.)

- and -

WELLS MANUFACTURING COMPANY)
an Illinois corporation,)
Petitioner,)
)
v.) PCB 74-257
)
ILLINOIS ENVIRONMENTAL PROTECTION)
AGENCY,)
Respondent.)

Mr. Michael A. Benedetto, Jr., Assistant Attorney General, in
behalf of the Environmental Protection Agency;
Mr. Joseph S. Wright, Jr., Attorney, in behalf of Wells Manu-
facturing Company.
Mr. David Sims, in behalf of Citizens for a Better Environment.

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

This matter is a consolidation of three separate cases concern-
ing Wells Manufacturing Company, an Illinois corporation (Wells).
The first case, PCB 73-403, is an enforcement case filed by the
Illinois Environmental Protection Agency (Agency) against Wells on
September 25, 1973. The second case is also an enforcement case
brought by Citizens for a Better Environment (CBE) against Wells on
October 1, 1973. The third case, PCB 74-257, is a petition for

permit review by Wells, filed on July 8, 1974.

The three cases have carried on for some two years in pleadings, motions, and hearings. Ten days of hearings were held on the matter starting November 8, 1973 and ending on April 17, 1975, producing a 1371 page transcript.

Both the Agency and the CBE complaints allege a violation of Section 9(a) of the Environmental Protection Act (Act) for the time period of January 1, 1972 to the date of the filing of the respective complaints. On August 16, 1974, the Agency amended its Complaint to include a violation of Section 9(b) of the Act, alleging that Wells failed to possess an operating permit, and extending the dates of violation. Wells subsequently filed their petition for review of permit denial.

THE WELLS OPERATION

Wells Manufacturing is a family owned Illinois corporation which operates a grey and alloy iron foundry in Skokie, Illinois. The foundry produces castings used for the automotive, agricultural, petroleum, hydraulics, and aircraft industries, and has a rated capacity of 325 total tons per day, although usually it produces no more than 275 tons per day (T. 624, 629). Wells employs 520 workers (T. 596) and operates three 8-hour shifts, five days per week.

After being melted in two 13-ton electric induction furnaces, molten metal is poured into various molds to form the outside configuration of the castings. Some of the molds contain a core which produces the inside configuration of the final product. The molds are cooled in a cooling tunnel and transported to an area known as the "shakeout" where the castings are separated from the remains of the mold (T. 643-649).

Of the various types of molds produced at Wells, only the type known as the shell mold is relevant to this case. This shell mold consists primarily of silica sand and small amounts of other materials as follows (T. 634):

Acme Resin	3.62%
hexamethylenetetramine	0.445%
Water	1.47%
Wax	0.236%
Acme 75 deodorizer	0.002%

The silica sand is heated to about 500°F and the resin and other

materials are coated onto the sand (T. 637-639). The sand is thereafter placed on heated patterns where it hardens to form the finished shell mold. The phenol-formaldehyde resin acts as a binder to hold the sand in the necessary shape. The hexamethylenetetramine acts as a catalyst to set the resin.

The sand coater or muller, the molding machines, the pouring area, the cooling tunnel, and the shakeout and core-making areas are all potential sources of the odors complained of in the two enforcement cases. The precise chemical composition of these odors is not fully known other than that they are produced by the heating of the phenol-formaldehyde resin and the other additives in the sand.

The sand coater, pouring area, and cooling tower have, since about mid-1972, been vented to three bag houses for particulate removal. The molding machines and the core-making area are not controlled at this time. The shake out area is vented to a wet scrubber (T. 652-662, Agency Ex. 16).

The Wells facility is located in an industrial area adjacent to a residential area. Residences are located to the north and northeast at a distance of about 1/2 mile within the Village of Morton Grove, Illinois. Adjacent to the facility on the northeast, east, and southeast is the property and physical plant of Niles West High School (Agency Ex. 1).

Citizen Testimony

A great deal of citizen testimony concerning the odor problem at Wells was presented at the hearing. A total of 22 citizens testified in support of the position of the Agency and CBE. Twelve of these witnesses were residents of the immediate area, seven were teachers at Niles West High School and three witnesses were officials of the Village of Morton Grove.

The three officials of the Village of Morton Grove included two Village Trustees and a Village Sanitarian. Mr. John Hilkin (T. 35-41), a Village Trustee, presented a resolution of the Village Board dated January 28, 1974 (Board Exhibit No. 1). The Resolution indicates that the odor problem in the Village of Morton Grove is long standing and that control measures recommended previously have not been sufficient to solve the problem. The Resolution also calls for a cease and desist Order against Wells with regard to any manufacturing process that affects the residents of the Village of Morton Grove. Mr. Hilkin also indicated that in his opinion Wells was somewhat reluctant to recognize the odor problem.

Mr. Edwin Brice, also a Village Trustee, indicated in his testimony that he had personally noted smoke and an odor coming from the Wells facility while attending football practice at Niles West (R. 79). Mr. Brice also indicated that he had experienced the odor as recently as two months prior to the hearing and that during hot weather the odor was almost always present.

Mr. Louis Bartmann, sanitarian for the Village of Morton Grove, testified that his duties as Sanitarian include investigation of citizen complaints concerning air pollution. Mr. Bartmann testified concerning specific complaints of foul odors which he determined were coming from the Wells facility. This determination was based upon upwind and downwind observations. Mr. Bartmann also testified as to personal observation of a strong phenolic odor coming from Wells (T. 25-26). Complaints received by the Morton Grove Health Department during 1972 and 1973 concerning odors from Wells were submitted as Agency Exhibits 3 and 4, Mr. Bartmann indicating that in nearly all the instances in which he responded to complaints, they were justified (T. 53).

The group of witnesses from Niles West High School included Nicholas Mannos, Principal of Niles West High School (T. 59-68). Dr. Mannos indicated that odors from the foundry had been a problem since the school opened in 1958, and that although cooperative, Wells had not acted until community pressure had been exerted. Dr. Mannos, recalling personally experiencing the odors while using the Niles West track in the summer of 1973, further testified that the odor problem affected the eyes and breathing of the participants in the school's outdoor activities. According to Dr. Mannos, the present population of the school consists of about 2800 students and 175 teachers.

Mr. Donald Huff (T. 26-35), Mr. James Phipps (T. 235-246), Mrs. Jean Armour (T. 42-50), and Mr. John Armour (T. 51-58) all testified as to their experiences concerning odors from Wells while working at Niles West High School in the Physical Education Department. This group of witnesses all testified as to personal experience with the odor problem at Wells facility and indicated that they had all received complaints from the various groups of students they were teaching concerning breathing problems, eye watering and burning, etc. A Science teacher at Niles West High School, Mr. Robert Hanrahan (T. 121-130), indicated that he had personally observed the odors, particularly in the general area of the football practice field.

Among the residents who testified was Michael Langer (T. 87-98) who has been a Lieutenant on the Skokie Police Department for eleven

years and whose residence is 1 1/2 blocks from Wells. Lieutenant Langer testified as to a strong odor which he attributes to Wells Manufacturing, having observed the odor in the area of the Wells parking lot and during times when he used the Niles West practice field. Lieutenant Langer also testified that during 1972 and 1973 he observed the odor approximately 20 to 25 times each year and that the odor burns his eyes and throat and aggravates his asthmatic condition, forcing him to curtail his use of his outdoor swimming pool and to purchase an air filter for his home.

Mr. James Pritikin (T. 211-234) is an attorney living near Wells who testified that since July, 1972, he has detected an obnoxious, repulsive and irritating odor coming from Wells. Mr. Pritikin determined that the odor was coming from Wells by driving around to the upwind side of the plant where he found no odor present at a time when the odor did exist downwind of the plant. Mr. Pritikin further testified that his use of his home is severely restricted and that he is unable to stay outside during the time that the odor is present. He has complained to Mr. Wells, the Morton Grove Health Department, the Attorney General and the Illinois Environmental Protection Agency.

Mrs. Carl Pines, a six year resident of Morton Grove, testified that she has observed a foul odor at her residence which she determined was from the Wells Manufacturing plant by driving from her house to the plant and detecting similar odors at that site (T. 136-156). This witness had recorded her observations particularly during the years 1970 through 1974. She complained that during the occasions when the odor was present her eyes and throat burned and she was unable to use her yard.

Mrs. Carol Salinger (T. 247-262) has been a resident of Morton Grove for 16 years and has been affected by the odor both at her home which is east of the plant and at the Edison School where she teaches. Mrs. Salinger, testifying that she became familiar with the odor of phenol while obtaining a degree in biochemistry, characterizes the odor as a phenolic odor. Mrs. Salinger further testified that the odor had caused her to refrain from using her yard during the summer and that she had purchased an electric air filter partially as a result of the odor.

Eight more residents testified concerning their experiences with the odor in question. All have lived in the immediate area of the Wells plant for up to 17 years and have been affected by the odor in varying degrees, ranging from minor irritation to loss of use of property, problems with breathing due to lung conditions, keeping asthmatic children inside, inability to do yard work, and

dizziness. In addition, most of these citizens have filed complaints with various agencies.

Taken as a whole, the citizen testimony indicates that there is, at times, an odor characterized as "phenolic" emanating from the Wells facility. The testimony further indicates that the odor has an effect ranging from unpleasantness in most people to physically affecting the respiratory systems of people who are afflicted with respiratory problems or who are engaging in heavy exercise. Considering the number of people testifying and the coincidence of symptoms, there can be little doubt that the odor exists. In addition testimony from various of these citizens indicates that the source of the odor is Wells Manufacturing Company, including at least three who actually investigated the atmosphere both upwind and downwind from Wells to insure that Wells was indeed the odor source (R 16, 93, 211).

WELLS MANUFACTURING COMPANY

In response to the citizen testimony, Wells offered expert testimony to the effect that results of certain stack tests made for Wells indicated an absolute odor level so weak that natural dispersion would render the odor undetectable more than a few feet from the stack (T. 1236). In addition, Wells claims that the odor problem originates at another factory in the area. Although the reference was correctly excluded from the record by the Hearing Officer, Wells included an Agency complaint report dated December 29, 1972, concerning this installation in their trial brief. Review of this report, which is not competent evidence, indicates very small operations with respect to odor production and complainants who could not agree as to whether the odor source was Wells or the other installation.

The Board therefore finds, on the basis of the extensive citizen testimony concerning the characteristics and source of the odor, that Wells has emitted odors from its foundry in Skokie, Illinois, on an intermittent yet continuing basis from 1972 until the filing of this Complaint which has unreasonably interfered with the enjoyment of life and property.

AVAILABLE TECHNOLOGY

A considerable amount of the record in this case is dedicated to the issue of whether or not technology exists which would allow Wells to abate its odor problem. Three methods of abatement were addressed by the evidence: oxidation of the odor by means of ozone; oxidation of the odor using a chemical (potassium permanganate) in a water scrubbing system; and chemical adsorption using activated carbon as the adsorber. In addition, the Agency proposed that Wells purchase precoated sand, thus bypassing at least one source of the odor generation at the facility, i.e. the sand coating operation.

Ozone, a molecular variant of oxygen containing three oxygen atoms, is a very active oxidizing agent which has the ability to reduce odors by oxidizing the odor bearing portions of organic molecules (T. 939-40). Dr. Nebel, an Agency witness, testified concerning the use of ozone to control industrial odors, including the control of phenol-formaldehyde resin odors in the manufacture of felt (T. 912-1003). Dr. Nebel conducted tests at Wells in January, 1974, subsequent to an investigation at his laboratory. A small stream of air from the various odor producing areas was allowed to enter a "contact chamber" to which ozone was added. After each source was treated by the ozone, an odor panel evaluation was made. In this odor panel, a number of people were presented with random samples of treated and untreated air and asked to determine whether or not they detect an odor in the sample. We will discuss the various odor panel tests later in this opinion.

The result of Dr. Nebel's test at Wells was a recommendation that Wells install ozone equipment to control odor. Although economic factors were stipulated in the record as not bearing on the results of this case, the total cost of the ozone installation was less than \$200,000 (Agency Ex. 21 and 22).

Although Dr. Nebel's testimony resulted in widely divergent interpretation by both parties in their briefs, it is clear to the Board that Dr. Nebel's opinion concerning ozone odor control was that such a system would work so long as an automatic ozone level controller was included in the system (T. 934-940). Indeed, Wells in their brief (p. 29) states "ozone, therefore, might feasibly be used to lessen foundry odors, but as of the close of the record, there had been no substantial indication that it would be successful." Although no further evidence concerning ozone was introduced at the hearing, Wells has indicated that they are going forward with investigation of this method of odor control. Based on the record and the continued interest of Wells in the ozone process and odor elimination, the Board finds that the ozone method of odor control is and has been a method of controlling the Wells odor problem.

Another method of odor control considered in the record was the use of activated carbon, derived from coal and/or coconut shells which have been subjected to high temperature to obtain a highly porous product. This activated carbon has been used to adsorb organic materials whose molecules physically adhere to the surface of the carbon through a phenomenon known as "Van der Waal's forces." The activated carbon may be recycled by heating to high temperatures which drives off the organic molecules and incinerates them. Mr. Raymond L. Poltorak testified regarding tests conducted using activated carbon at the Wells facility (T. 744-882). The record shows that Mr. Poltorak first contacted Wells in February, 1973, concerning

the carbon adsorption method but was not requested to run tests until June, 1974 (T. 761-762). The tests were conducted by drawing a small amount of the various Wells emissions through a container that held layers of the activated carbon. Test results indicated that activated carbon adsorption would result in 80% odor reduction, these results being obtained by an odor panel, much as in the ozone method mentioned above (T. 810, Agency Ex. 19).

Mr. Poltorak also testified that in his opinion a full scale system would be a technologically feasible method of reducing odors at the Wells facilities (T. 807-810), and that such an activated carbon adsorption system was in use by Chrysler Corporation to control odors from a shake-out process in their foundry. That foundry, however, did not use the same binders as those employed by Wells (Agency Ex. 20). During the hearing Marshall Wells testified that the use of activated carbon adsorption remains a viable alternative upon which larger scale testing would be warranted (T. 711). Upon evaluating the testimony of the witnesses at the hearing, the Board finds that the activated carbon adsorption method is and has been a potential method of odor control for the Wells facility.

As was indicated in the record, neither the ozone method nor the activated carbon method of odor control has been used in any other facility under conditions identical to Wells.

The third method of odor control considered in the record is that of a liquid chemical oxidation system. This type system utilizes a chemical oxidant, a combination of acid and potassium permanganate, which reacts with the odor laden gases in what is termed a "packed tower." The packed tower allows intimate contact of gas with the liquid wherein the oxidant converts the odor laden gases to a non-odoriferous emission (T. 104). This type of equipment has been available since 1956 (T. 205).

Mr. Robert T. Sohr testified concerning this chemical oxidation system (T. 79-518) stating that he had conducted field tests of such a device at Wells Manufacturing in February, 1973. No odor panel tests were conducted during these field trials, Mr. Sohr's personal observation being that the odors were quite successfully removed (T. 160-166).

Evidence was presented to the effect that a similar manufacturing facility at Harris Metals in Racine, Wisconsin, was controlled by the chemical oxidation process (T. 136) and that reductions in odor were also accomplished at two other foundries (T. 463-471, Agency Ex. 12).

Under cross examination Mr. Sohr indicated that the Harris Foundry installation was not functioning at that time due to a very

high rate of use of the potassium permanganate chemical (T.307-309). The apparent cause of the excessive use of chemical at Harris Metals was the presence of particulates in the air stream which caused the excessive consumption of chemicals (T. 491). It is the Agency's contention that such high consumption would not occur due to the existing particulate removal equipment at Wells. In addition in September, 1974, Mr. Sohr on behalf of the Hormel Corporation guaranteed that a system proposed for Wells would reduce odors to below an 80 odor unit level, phenols to 2 parts per million, aldehydes to 2 ppm, and amines to 2 ppm. If the proposed installation did not perform in accordance with the guarantee, the capital cost of the equipment would be completely refunded (T. 213). The Board notes, however, that there was no proof that an emission of 80 odor units at the stack would eliminate that operation from being a source of complaints. Upon evaluating the testimony of the witnesses at the hearing and considering the exhibits, the Board finds that the chemical oxidation method is and has been a potential method of odor control for the Wells facility, although potentially more expensive in terms of chemical and maintenance cost than the carbon adsorption system and the ozone system mentioned above.

Wells contends that there is no equipment currently available that has been proved effective with regard to the particular operation and odor at the Wells facility. Most of the Wells cross examination of the Agency's witnesses was with regard to their veracity and their motives in testifying. Notwithstanding the vigorous cross examination by Wells counsel, the Board finds no reason to be suspicious of the testimony of the witnesses beyond the fact that each was convinced that his own method of odor control was the best. Mr. Wells stated that none of these systems has been engineered and proved in the field (T. 1125). The argument, by Wells, that no tried and true method is available even if taken as true does not relieve Wells of the responsibility of going forward with its duty of controlling the odors emitted by the facility. The Board cannot allow Wells to postpone their duty until someone else with the same sort of operation develops and proves a process for odor control. Wells produced no evidence that the three methods investigated would not solve Wells odor problems, but rather the evidence was that Wells would be forced to do some amount of developmental work with its suppliers in order to fit a system to the operation. In effect, Wells complains that it cannot buy an odor controlling system from off the shelf. The end result of this argument is obvious. As was stated in A.E. Staley Manufacturing Company v. Environmental Protection Agency, PCB 71-174, 2 PCB 521 (1971), by Mr. Currie:

...It cannot be a complete defense that no one has yet put the technology to commercial use; if

it were we would encounter a vicious circle in which technology was not employed because not required and not required because not employed. (2 PCB 523)

Indeed, in this case there is no question of commercial use, the technologies under consideration all having been proved in prior installations. Rather, it is a matter of adapting the existing technology to precise criteria as presented by the Wells facility. The Board finds, therefore, that it is and has been technologically feasible for Wells to abate their odor problem at the Skokie facility.

The use of incineration to control the odor from the Wells facility was considered at the hearings. The Board finds that, considering the alternate methods proposed for the odor control and the short supply of energy with which to incinerate the odor causing molecules, incineration is not a practical method for this installation. The record indicates that the sand preparation operation is a major contributor to the odor problem. It would appear that the purchase of prepared sand, which is available, would be an alternative for Wells at least insofar as the odor from this particular operation is concerned (T. 655-894).

ODOR PANEL TEST

A great deal of evidence was produced at the hearings both in terms of testimony and exhibits concerning odor test panels. An odor test panel is a method of determination of the odor concentration in gases discharged from industrial process operations. The method depends upon the human olfactory system. Samples of the odoriferous emission are diluted with odor free air to various concentrations and submitted to a panel of persons who then determine whether they can detect odor. The method is colloquially referred to as "the old schnozz test," but, nevertheless, is the subject of the American Society for Testing Materials (ASTM) standard method for measurement of odor in atmospheres, ASTM designation: D1391-57.

It appears from the record that there were as many modifications of this ASTM standard as there were investigators. The ASTM standard itself calls for very stringent methods and notes a long list of interference problems including extraneous odors and lingering tastes, the need for a totally odor free room, observers with clean and odor free clothing, clean and odor free equipment used in the test, control of the smoking and chewing of tobacco or gum or eating by the observers for at least thirty minutes prior to the determination of the odor concentration, the physical condition of the observer, limitations on the amount of time that the observer may participate in a test, and a suitable screening test of observers to determine their ability with respect to olfactory perception. With all of this careful consideration of variables the precision and accuracy of the ASTM

test is set at an individual reproducibility of plus or minus 50 percent, thus indicating the need for many panel members to improve the total reliability.

The odor panel tests as presented in the evidence of this case were all highly modified adaptations of the ASTM method, if they may be considered adaptations at all. Each party charges that the odor panel test used by the other party was so modified as to make the results obtained subject to a high degree of error. The Board is inclined to agree with this contention of each party concerning the reliability of the odor panel tests as performed herein and, thus, has ascribed relatively less weight to this evidence.

ECONOMIC REASONABLENESS

Early in the hearing, Wells effectively waived its right for Board consideration of the economic reasonableness of the installation of odor abatement equipment. Wells indicated that economics would not be a consideration at the hearing and refused to provide economic information which would allow the Board's consideration of economic reasonableness. The Hearing Officer noted at the hearing that he considered the matter waived, and the Board concurs (T. 583). In any event, the one equipment bid cost entered into the record indicated a cost of less than \$200,000 which would not appear to be particularly excessive for a corporation employing over 500 people.

WELLS POLLUTION CONTROL EFFORTS

Wells contends that its history with regard to pollution is one of rapid compliance with Regulations. The company points to the installation of two electric induction furnaces installed by July, 1965, and the final change over from cupola melting to electric induction of melting by January 1969 (T. 164). Wells states that the change from cupola melting to electric induction furnaces was not a cost saving device but was purely a pollution control measure resulting in higher operating costs for Wells. The Board notes that in addition to a more easily controlled emission problem, the induction furnace offers a much more readily controlled metallurgical process resulting in better quality iron for the castings and the ability to produce high grade alloy iron.

An action filed in the Circuit Court of Cook County by the attorney General in April, 1970, People v. Wells Manufacturing Company 70 Ch 1794, was dismissed in consideration of a stipulation wherein Wells discontinued the use of its cupolas and had undertaken a study of its plant through the use of independent consultants and in cooperation with the office of the Attorney General to determine the need for control of any additional emission sources (Respondent's Brief Exhibit C). As a result of these investigations, apparently conducted in 1969 and 1970, it was concluded that the odors were being

caused by organic material in particulate emissions as opposed to gaseous emissions (T. 1236-1238). Upon recommendation of their consultant, Wells proceeded to engineer and order three bag house type correctors which were installed between April and September, 1972 (T. 1092-1097). The apparent failure of the bag house to control the odor, notwithstanding its excellent control of particulate matter, precipitated Wells investigation of other methods of odor control as noted above.

Wells now contends that it has since September, 1972, vigorously pursued its investigation of the problem but cannot find technology suitable to abate the odor problem.

Wells has experimented with other type resins for use in its Shell process, but these apparently failed to produce acceptable castings (T. 1116). In 1974 a variant of the resin then in use known as Acme 1127 was put into the production process. In addition, Wells began adding a deodorizer with the new resin, whose purpose was to mask the resin odors (T. 897-898). Wells contends, based upon an odor panel test, that this change over to a new resin and the deodorizer has significantly reduced the odor emissions of the Wells facility. Citizen testimony produced subsequent to the resin change over indicates that little or no change had occurred with regard to the odor problem.

THE WELLS FACILITY

The social and economic value of the Wells facility was considered at the hearings and the following evidence was presented. Wells employs about 500 people at the facility with a payroll of some \$5 to \$6 million dollars per year (T. 1074). Wells customers include General Motors, Ford, Chrysler, American Motors, TRW, Vickers Inc., Caterpillar Tractor and Cummings Engine along with other less well known manufacturing concerns (T. 1075). Wells alleges that it is the sole supplier of the parts used in automobile power steering units and that the castings market was in a very tight capacity situation which would create a time lag to obtain another producer if Wells were unable to produce parts (T. 1077). The Board finds the unrefuted evidence presented sufficiently establishes the social and economic value of the Wells facility as a source of necessary industrial parts and as an employer.

With regard to the suitability of the facility as it pertains to its location, evidence was presented that Wells has been located on its present site since 1947 and is located in an area presently zoned M-3 Industrial (T. 1003). When the facility was first constructed, the area consisted of a swamp, vacant land and some industry to the north, farm land to the east, south and west (T. 1126). Niles West High School was built in the 1950's on land purchased from Wells Manufacturing. Wells increased the size and capacity and production facilities along with construction of office and laboratory

space subsequent to the construction of Niles West High School.

The limited evidence produced at the hearings indicates that the original installation in 1947 was probably at least marginally suitable to the area as it appeared at that time. However, since 1950 the area to the north and north east has become residential in character and Niles West High School has occupied the adjacent property on the northeast, east and southeast. It must be presumed that Wells was aware of the character change of the area and indeed the property upon which Niles West High School was built was purchased from Wells.

Faced with this change in neighborhood character and particularly with the advent of the Niles West High School right across the street, it must be presumed that Wells went forward with the additions to their physical plant and the changes in their production methods and capacity knowing full well that their future emissions might be characterized as unreasonable.

The Wells facility's priority in terms of time does not relieve it of the responsibility not to interfere with the health, welfare and enjoyment of property of its neighbors, The Environmental Protection Agency v. Ralston Purina Company, PCB 71-88, 7 PCB 442 (1973). In addition, as was mentioned above, the evidence indicates that the nature of the area was established prior to much of the odor producing processes and installations at the Wells facility.

CONSIDERATIONS

The Board finds that the Complainants have established their burden in proving that Respondent had caused air pollution. As stated by Mr. Lawton in Environmental Protection Agency v. Midwest Rubber Retaining Company, PCB 72-318, 7 PCB 202 (1973);

The statute does not require that sickness, infirmity or permanent injury result from odor emissions. It is the very activities from which these witnesses were foreclosed that constitute these unreasonable interference with the enjoyment of life...

The evidence in this case establishes a long term odor problem caused by Wells Manufacturing. The odor has significantly interfered with and affected a great many residents, employees and students in the area of the plant. The Board finds that Wells Manufacturing has violated Section 9(a) of the Environmental Protection Act by emitting odors from its foundry in Skokie, Illinois during 1972, 1973 and 1974.

Considering the evidence presented at the hearings and the foregoing discussion, the Board finds that the Agency properly refused Wells an operating permit. Since the permit was properly denied,

the Board finds Wells in violation of Rule 103(b)(2) of Chapter 2 Part 1 of the Air Pollution Regulations and violation of Section 9(b) of the Act, in as much as Wells operated its plant without an operating permit.

In its determination of an appropriate penalty for the violations found, the Board has considered all the evidence presented and, as this rather lengthy opinion illustrates, has taken into consideration all the facts and circumstances bearing upon that penalty including the considerations listed under Section 33 of the Environmental Protection Act. The Agency, in its brief, indicates a potential maximum penalty of \$80,000 for said violations. The Board finds that a penalty of \$8,500 for violation of Section 9(a) of the Act and \$500 for violation of Rule 103(b)(2) of Chapter 2 and 9(b) of the Act is appropriate in this case. Although it appears that Wells reacted very slowly to their problem and generally in response to the urgings of legal complaints, the evidence indicates that some investigatory work was done. Merely investigating a problem, however, does not fulfill a polluter's duty under the Act and the Regulations, and for the Board to condone such an approach would undermine the effectiveness of the Act in reducing pollution in the State of Illinois.

In addition, considering the slow response in solving their odor problem, the Board finds it necessary to order Wells' compliance of the Act by a date certain. We will therefore order Wells to submit a plan of compliance to the Agency within 60 days of the date of this Order including within that plan a proposed schedule of construction. The record indicates that an 80 percent reduction in odor is a reasonable expectation of the methods investigated (Agency Ex. 12, 19, 20). We shall therefore order Wells to reduce their maximum odor emissions from the processes that are the subject of this Opinion by 70 percent before January 1, 1977 (Agency Ex. 7, 20, 21). The 70 percent reduction in odor level shall be determined using odor panel tests made in strict conformance with ASTM Standard D 1391-57 or, in the alternative, what is known as the Mills Modification to said test. Wells shall submit a performance bond in the amount of \$50,000 to the Agency, and shall report their progress toward compliance to the Agency on or before July 1, 1976, October 1, 1976, and at the completion of the project.

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

ORDER

It is the Order of the Pollution Control Board that:

- 1) Wells Manufacturing has violated Section 9(a) of the

Environmental Protection Act by emitting odors from its foundry in Skokie, Illinois during 1972, 1973 and 1974.

2) The permit appeal in PCB 74-257 be and is hereby dismissed.

3) Wells Manufacturing is in violation of Rule 103(b)(2) of Chapter 2 Part I of the Air Pollution Regulations and in violation of Section 9(b) of the Act.

4) Wells Manufacturing shall submit a plan of compliance, including a proposed schedule of construction to the Illinois Environmental Protection Agency, consistent with this Opinion within 60 days of the date of this Order.

5) a. Wells Manufacturing shall reduce their maximum odor emissions from the processes that are the subject of this Opinion by 70 percent before January 1, 1977.

b. Said 70 percent reduction in odor level shall be determined using odor panel tests made in strict conformance with ASTM Standard D 1391-57 or, in the alternative, what is known as the "Mills Modification" to said test.

c. Wells Manufacturing shall give reasonable notice to the Illinois Environmental Protection Agency of the pendency of said tests and shall allow free access for observation thereof.

6) Wells Manufacturing shall pay a penalty of \$9,000 for the violations found herein. Penalty payment by certified check or money order payable to the State of Illinois shall be made within 45 days of the date of this Order to:

Fiscal Services Division
Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

7) Wells Manufacturing shall, within 45 days of the date of this Order, post a performance bond in the amount of \$50,000 with the Illinois Environmental Protection Agency in a form satisfactory to the Agency to insure performance under this Order.

8) Wells Manufacturing shall submit reports of their progress toward compliance with this Opinion and Order to the Agency on

or about July 1, 1976, October 1, 1976 and at the completion of the project.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 26th day of February, 1976 by a vote of 5-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board