

ILLINOIS POLLUTION CONTROL BOARD
March 14, 1974

ENVIRONMENTAL PROTECTION AGENCY)
COMPLAINANT)
)
)
v.) PCB 71-348
) PCB 72-73
)
DARLING & COMPANY)
RESPONDENT)
)

NICHOLAS G. DOZORYST II, JAMES JENKS ET AL., ASSISTANT ATTORNEYS
GENERAL, in behalf of the ENVIRONMENTAL PROTECTION AGENCY

JOSEPH J. LAROCCO, ATTORNEY, in behalf of DARLING & COMPANY

OPINION AND ORDER OF THE BOARD (by Mr. Marder)

This case comes to the Board with a long and confusing history. Environmental Protection Agency v. Darling was filed on November 3, 1971, charging Darling & Co. with a violation of Section 9 (a) of the Environmental Protection Act and Rule 2-2.31 F and 2-2.41 of the Rules and Regulations of the Air Pollution Control Board for its facility at 42nd Street and Ashland Avenue. On February 25, 1972, Darling filed a petition for variance in response to the aforementioned case with the Board for its glue-making facility located at 42nd Street and Ashland Avenue in Chicago. The variance was requested from Sect. 9 (a) of the Environmental Protection Act and Rule 2-2.31 F and 2-2.41 of the Air Rules for a period of 27 months, from the time the variance was granted.

A hearing was held on the variance, PCB 72-73, on July 26, 1972. At that time Darling presented its case for variance, but the Agency did not proceed, as there was no Agency recommendation filed (R. 7/26/72 P. 4).

On November 14, 1972, the Board ordered the Agency to proceed with the matters or suffer a dismissal of the enforcement action.

The Agency filed an amended and corrected complaint on December 1, 1972, adding a 9 (a) complaint against Darling for its rendering facility at 45th and Racine Avenue.

The Agency then filed its recommendation to the variance case on December 18, 1972. In it the Agency recommended a denial or as an alternative a grant subject to a long list of conditions.

The enforcement and variance cases were consolidated for hearing.

Hearings were held on July 26, 1972; December 21, 1972; January 15, 1973; February 20, 1973; February 26, 1973; August 3, 1973; September 18, 1973; December 3, 1973; December 4, 1973; and December 5, 1973.

Members of the public were present at some of the hearings and testified in the Agency's case-in-chief in the enforcement action.

We will consider both cases in one opinion, but they will be considered separately in the opinion.

PCB 71-348

The Agency began its case with citizen testimony.

Mrs. Rose Ann Burns, an employee of Hammond Columbia Refrigerated Warehouse Co. (herein referred to as Hammond), located at 4551 S. Racine Avenue, testified that there has been an odor in the area of her job since she began working there. She characterized the odor as the smell of fertilizer (R. 12/21/72 P. 12) or like the "whole Russian army bare-foot" (R. 12/21/72 P. 12). She stated that Darling is the only possible odor source in the area that has been in operation for the full 9 1/2 years (R. 12/21/72 P. 10) that she has been working for Hammond (R. 12/21/72 P. 12). She stated that Darling is located directly west of Hammond on Racine Avenue and when the wind is from the east the odor is less (R. 12/21/72 P. 13). The witness testified the odor is a daily occurrence (R. 12/21/72 P. 14) and when she drives to work she notices the smell at about 55th Street and Racine, and it gets worse as she drives closer to work (R. 12/21/72 P. 16). The witness has always believed the odor to be from Darling and does not associate it with any other business in the area (R. 12/21/72 P. 18). On cross-examination the witness testified that there had been livestock pens in the area until July of 1972 (R. 12/21/72 P. 25) and that other odor-producing sources in the area have left the yards (R. 12/21/72 P. 37).

On cross-examination the witness further stated that she assumed the odor in the area was that of Darling. She was not able to state whether other possible odor sources were not contributing to the odors she smelled at work (R. 12/21/72 Pp. 49-52). She did state that the odor was worse when the wind was coming out of the west, passing over the Darling facility (R. 12/21/72 P. 54).

The next witness was Lillian Garza who lived at 1207 47th Street, Chicago. She works for Hammond, in the order department. Her home is located two blocks southwest of the Hammond plant. She testified that when the wind is from the north on a hot, humid day, the odor is so bad that she is nauseated (R. 12/21/72 P. 59).

She also believes the odor is that emanating from the Darling & Company (R. 12/21/72 P. 53). There is no odor at her home when the wind comes from the south (R. 12/21/72 P. 60). When the wind is from the west, the odor is stronger at work (R. 12/21/72 P. 61). She has noted odor at least four days a week from 1970 (R. 12/21/72 P. 66). When she

parks her car at both home and work, it is covered with a greasy, oily film (R. 12/21/72 Pp. 67, 74).

The third Agency witness was Anita Piwnicki, who also worked for Hammond. She lived at 4839 S. Elizabeth, Chicago, which is four blocks south of her work. She has lived there for 27 years. When the wind is from the north, she receives odors at her home, the same odors which she smells at work (R. 12/21/72 Pp. 82-83). The smell is stronger at work than at home (R. 12/21/72 P. 86). She also gets grease on the windshield of her car every day (R. 12/21/72 P. 90). The witness testified that the odor was that of cabbage cooking (R. 12/21/72 P. 95). On cross-examination the witness admitted that the odor at her home was less than 27 years ago when the stockyards were operating, but stated that for the eight years she has worked for Hammond, the odor has been constant at work (R. 12/21/72 P. 96).

Pat Holland, an employee of Hammond for five years preceding the hearing, next testified for the Agency. At work she notes that there are very bad odors that she thinks come from Darling and Company that make her sick to her stomach (R. 12/21/72 Pp. 114-115). She said that she has smelled the same odor as far away as 4100 South on Halsted Street. The odor that she noticed is not the same as the one from the pens at the stockyards, and she does not see pigs in the area any more (R. 12/21/72 Pp. 119, 120, 129).

Carmen Chapa of 5124 S. Carpenter, Chicago, next testified. She has worked for Hammond for 3 1/2 years. She stated she got a light odor at home, and a heavy one at work. It is the same odor, but of different degree. She characterized the odor as "stinky, bad," and that she thinks it comes from Darling (R. 12/21/72 P. 135). She believes it is Darling because she sees "smoke" from there and the odor is very heavy on Racine (R. 12/21/72 P. 137). She also gets a greasy film on her windshield (R. 12/21/72 P. 138). When the wind is from the west, the odor at work is worse (R. 12/21/72 P. 140). The odor she notes is different from that from the "pens" as the pens smelled "cattley," whereas this odor is "putrid, stinky." (R. 12/21/72 P. 141) The witness admitted that she only assumes the odor is from Darling and had no other basis (R. 12/21/72 P. 144).

Elizabeth Duvick of 6726 S. Winchester, who also works in the Hammond complex, testified that there is a heavy rotted smell near her work which makes her want to vomit (R. 12/21/72 P. 158). The odor is definitely worse as she walks to work as she passes the Darling facility (R. 12/21/72 P. 159). There is a constant smell in the area, but it is worse on hot, humid days. When the wind is blowing toward her from Darling, the odor is worse. When her daughter goes into the area, she vomits (R. 12/21/72 Pp. 159-163). The witness has been in the Darling plants and testified that the odors are not the same at both plants. At the 42nd Street plant, there is a chemical, ammonia smell. At the 45th Street plant it is just like "dead waste mouldering" (R. 12/21/72 P. 168). The odor at the 42nd St. plant is especially strong when the witness was just about to enter that building to visit friends (R. 12/21/72 P. 169). When

the witness goes to visit a relative, at the 45th St. facility, the smell is worse inside the building than out, and it is the same smell she gets on the street (R. 12/21/72 P. 169).

Mr. Juan Salazar is a retired worker who lives at 4558 S. McDowell. When the wind comes from the east, he has difficulty in breathing. He feels the odor comes from Darling (R. 12/21/72 Pp. 208-211). He feels dizzy from it. The odor smells like grinding bones (R. 12/21/72 Pp. 211-212).

Raphael Mitchell next testified for the Agency. At the time of the hearing he was an inspector for the United States Department of Agriculture, assigned to the Hammond complex. He stated that the smell outside the Hammond complex was putrid (R. 1/15/73 P. 236). In his expert opinion as a meat inspector and from his past experiences, he stated that the smell was that of inedible rendering (R. 1/15/73 P. 236). The odor could not come from the Hammond complex because no operation would be allowed to run if it was producing such a smell, as the major tenants of Hammond produced edible products (R. 1/15/73 Pp. 237-38). It would be unthinkable to have such an odor from a meat cutting and packing operation (R. 1/15/73 P. 241). There is no putrid odor coming from meat scraps or a smokehouse located in the Hammond facility (R. 1/15/73 P. 243).

Renate Wimmer lived at 4326 S. Honore. At home the smell was "bad" like rotten eggs (R. 1/15/73 P. 278). She got the same smell at home as at her work in the Hammond complex. The smell is worse when it is humid outside. Her children did not like to stay outside. The odor at times made the witness sick to her stomach and caused her to "gag" (R. 1/15/73 Pp. 277-284).

The testimony of the citizen witnesses definitely indicates that there is an odor problem in the area, and we are led to the conclusion that Darling is a contributing source. Cross-examination of the lay witnesses indicated that they associated the odor with Darling, but had no real information as to other possible odor sources in the area, of which there are many. Mrs. Duvick's testimony as to her experience in visiting the Darling facility and the fact that the odor she smelled in the Darling plants was the same as she smelled in the area and at work was most persuasive. From the testimony of the lay witnesses the Board has been able to conclude that Darling and Company at both its 45th Street and 42nd Street plants contributes to the odor problem pervading the "Yards" area, but it is impossible to conclude that Darling is the sole source of odor in the area.

The next Agency witness was Joe Hoffman, a surveillance engineer with the Agency's Division of Air Pollution Control. He testified that the Agency's attention was directed to an odor problem in the Yards area by a letter (Complainant's Exhibit #8) directed to the Agency from "Action 7," indicating an odor problem at about 47th Str. and Racine (R. 1/15/73 P. 340). Being unfamiliar with the area, Mr. Hoffman began his investigation at the Hammond complex in the facilities of Glenn and Anderson Co. His inspection indicated that Glenn and Anderson, and in fact the Hammond complex, was not the source of the odors being complained of.

The foreman at Glenn and Anderson indicated that the offensive odor in the area came from Darling and Company (Resp. Ex. #1).

On October 29, 1971, Mr. Hoffman went to the Darling facility to view the premises. At that time he walked around the plant with camera in hand. Complainant's Exhibit #4 showed the truck and loading facilities at the 42nd St. plant. The legends on the exhibit indicated Mr. Hoffman's belief that a lack of housekeeping on the dock allowed for spilled material to lie on the dock, creating a potential odor source. He said that in the dock area there was an odor of putrid animal matter (R. 1/15/73 P. 350). As he walked around the Darling facilities, he detected the odors of "well ripened carrion," rendering and bone meal odor (R. 1/15/73 Pp. 351, 354, 357). Complainant's Exhibit #50 (a picture taken November 2, 1971) shows windows open at the 42nd St. plant indicating another possible odor source at that point.

On February 29, 1972, Mr. Hoffman, with other members of the Agency staff, took a pre-arranged tour of the Darling plant. At that time Mr. Hoffman noted a general improvement in housekeeping on the unloading dock at 42nd St. (R. 1/15/73 P. 358.) It was his conclusion that the 42nd St. plant was antiquated (R. 1/15/73 P. 359), and that there could not be complete odor abatement in the plant because of the heavy amount of wood used in the building that retains odor, and the fact that the wood was covered with grease and other material (R. 1/15/73 P. 360). The inside of the plant smelled like glue and the roof smelled like a "stagnant swamp" (R. 1/15/73 P. 361). Mr. Hoffman also believed the cooling tower on the 42nd St. plant was an odor source. Mr. Hoffman testified that the 45th St. plant was under an effective negative pressure system, but that there still was an odor of bone meal (R. 1/15/73 P. 365). He noted that the receiving docks were open on one side (R. 1/15/73 P. 368). He further testified that the odors on this date were not particularly strong (R. 1/15/73 P. 371). He further testified that there are three rendering plants in the area, the two Darling facilities and one owned by Wilson Pharmaceutical Co. (R. 1/15/73 P. 378). He indicated a lack of knowledge as to the complete complement of tenants in the Hammond complex and to their respective operations (R. 1/15/73 P. 388). He also testified to seeing livestock cars in the area of the Hammond plant (R. 1/15/73 P. 391) and further indicated that the unused pens in the stockyards would retain odors. He made no further check of the Hammond complex after his initial investigation of Glenn and Anderson (R. 2/20/73 Pp. 15-18).

The witness stated that in his expert opinion that the magnitude of Darling's operation is the major source of odor in the area (R. 2/20/73 P. 24).

Hoffman testified that on November 2, 1971, he and Mr. Sy Levine, also of the Agency, personally walked around the Darling facility to determine from their olfactory senses that the odor originated in Darling's plant (R. 2/20/73 P. 40). They walked around the plant noting that there was no odor upwind from the plant but that there was downwind, and so determined that an odor was emanating from Darling (R. 2/20/73 P. 42). The odor at the 42nd St. plant was still that of "ripe carrion" and at 45th St. was still bone meal (R. 2/20/73 Pp. 43-44). Mr. Hoffman stated for the record that the 42nd St. plant is not under negative pressure, and

he further stated that Mr. Clark Rose of Darling admitted to him that it was impossible to maintain the plant under negative pressure completely (R. 2/20/73 Pp. 55-56). The cooling tower, the receiving dock, and open windows were cited by Mr. Hoffman as being the major sources of odors outside the building (R. 2/20/73 P. 63). He testified that the 45th St. plant is under relatively complete negative pressure, but there is still odor coming from the plant (R. 2/20/73 P. 67). He detected odors outside the building as that of bone meal drying and odors from the receiving dock (R. 2/20/73 Pp. 67, 69),

The next Agency witness was Laxmi Kesari, an Environmental Engineer III, with the Division of Air Pollution Control. He testified that he smelled rotten meat odors at the 42nd St. plant (R. 2/20/73 P. 111). On March 3, 1972, Mr. Kesari and two other Agency staff personnel went to the 42nd St. plant to take scentometer readings there. The results were summarized in Complainant's Exhibit #9. The results were effectively rebutted by the testimony of Henry Friedrich of Pollution Curbs, Inc., St. Paul, Minnesota. We will not go into great details of Mr. Friedrich's testimony, but just to summarize it, he questioned the fact that there was not any determination as to the sensitivity of the test personnel as to odors, there was not proper maintenance of the device, that there was no determination of background odor to determine whether the odor being measured was that of Darling and Company (R. 12/4/73 Pp. 446-462). The scentometer testimony thusly has been considered for what it is worth. The Board does not discount the usefulness of such detection devices, but suggests that proper controls be taken to insure the reliability of the test results.

On August 2, 1972, Mr. Kesari returned to the Darling plant to take pictures of it and on that day smelled offensive odors at both plants (R. 2/20/73 Pp. 123, 127). He noted that on that day the odors were stronger in the morning than the afternoon (R. 2/20/73 P. 20). Mr. Kesari again visited the area on Jan. 9, 1973, for a picture taking inspection (Complainant's Exhibits 12-18). At this time Mr. Kesari was definite that the odors he smelled while traveling around the Darling plants were in fact coming from Darling and Company. Exhibit 15 purports to be a picture of fans drawing air out of the 42nd St. plant and from this point Mr. Kesari stated that odors were coming (R. 8/3/73 P. 61).

The Agency then presented another citizen witness. David Caruvana was a student who lived at the time of the hearing at 1620 W. 38th St. He testified that while he is on the Ashland Avenue bus, he and the other persons on the bus had to hold their breath because of the odor (R. 8/3/73 P. 4). When the smell is really strong, he finds it difficult to breathe (R. 8/3/73 P. 6).

The Agency then had Sy Levine testify. Mr. Levine is the sub-unit supervisor for the Agency's Division of Air Pollution Control. He made two visits to the Darling plants, the first on November 2, 1971, and the second on February 29, 1972 (R. 8/3/73 P. 129). He testified that he smelled odors at the 42nd St. unloading dock emanating from spilled material, even though there was an alleged counteractant spray in operation at the time. He indicated the smell was like that of putrefied animal

waste (R. 8/3/73 Pp. 129, 130). There was less of an odor at his February visit, as compared to the November visit. He testified to the fact that the odors outside the plant were more concentrated than those inside the plant (R. 8/3/73 P. 138).

The last Agency witness was William Zenisek, a surveillance engineer with the Agency's Division of Air Pollution Control. On Feb. 29, 1972, he visited the Darling plant. He noted a sickening, nauseating odor outside the 42nd St. plant (R. 9/18/73 P. 176). During the tour of the plant the witness testified that the odor was so bad that all he wanted to do was to get the tour over with and get out of the plant (R. 9/18/73 P. 182). The odor outside of the 42nd St. plant was the same outside the plant as inside.

The case that Darling presented was both for the enforcement action and the variance request. The testimony relating to the enforcement action was basically that of Mr. Friedrich of Pollution Curbs, Inc. His company was retained by Darling to determine what odors Darling was emanating and also what other sources in the area could be causing the complaint of odor. Respondent's Exhibits 5 and 6 are data sheets of tests run by Pollution Curbs, Inc., to determine odor emissions from Darling's plant. The tests run are very controlled and scientific in nature and the odor panel technique used to determine the final numbers has been accepted by many states in their odor control programs. The problem with this data is that nowhere in the record is the Board informed as to the meaning of these numbers. Is 10 odor units per cubic foot a strong odor or not? The Board has no way of determining this on its own, and the Board will not go beyond the record to determine this or take notice of its results. Another problem with these tests is that they were taken from process unit stacks and not from open windows or at the receiving docks, which were both possible odor sources. The rest of Mr. Friedrich's testimony related to other possible emission sources for odors in the area. Mr. Friedrich was supplied by Darling with a list of possible emission sources in the area of Darling and Company that could possibly create the odors that are complained of in the area. (Respondent's Exhibit #9.) From this list he prepared a map of the area with the sources listed on them. This map (Respondent's Exhibit #10) indicates a number of plants that Mr. Friedrich went by to determine if they were possible odor sources.

The map shows a number of such possible sources that the citizen witnesses did not testify to or seem to know about. The thrust of Mr. Friedrich's testimony was to mitigate that of the lay witnesses as to Darling being the odor source, because Darling is the only source emitter in the area, according to the lay witnesses. Respondent's Exhibits 9 and 10 completely show that there are other possible sources in the area, and it does in fact tend to mitigate some of the lay testimony as to Darling being the sole odor source in the Yards area. It also brings into question the investigative techniques of the Agency as to determining background odor in the area.

The Board, however, finds ample testimony to show that Darling and Company at both its 42nd St. and 45th St. plants violated Section 9 (a)

of the Act. Section 9 (a) is violated when a person allows "the discharge or emission of any contaminant into the environment in any state so as to cause or tend to cause air pollution in Illinois, either alone or in combination with contaminants from other sources..." (emphasis added). Section 3 (b) of the Act defines air pollution as "the presence in the atmosphere of one or more contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant or animal life, to health (emphasis added), or to property, or to unreasonably interfere with the enjoyment of life or property..." (emphasis added).

The Board finds that Darling and Company, in combination with other point sources not determined, did emit into the atmosphere of the State of Illinois, contaminants (in the form of odors), which in fact unreasonably interfered with health and the use and enjoyment of life and property. The citizen testimony, though rebutted as to Darling's being the only source of odor emission, was such as to let us know that there is a tremendous odor problem in the area and that Darling and Company contributes to it. The testimony of Mrs. Duvick and the Agency personnel that the odor in Darling's plant is the same as the odor in the neighborhood is sufficient to indicate Darling's contribution. The area has odors that interfere with the life of persons who both live and work in the area. As such, Darling will be required to abate these odors in a manner set out in the Order that will follow this Opinion.

The Board finds that there is an unreasonable interference with the quality of life for those who must reside in the area and those who must work there daily. People should not be expected to hold their breaths on buses and gag from the air. The Board further finds that Darling and Company, while operating for profit and not as a public service, does provide a service that is necessary for health and sanitation by disposing of the waste products from the meat industry. The record indicates and the Board agrees that the service Darling provides in disposing of this material would not be readily transferrable to other sectors of the economy or to government, because of the problems involved in rendering. The Board finds the area of the Stockyards is as suitable to the rendering industry as any. While part of the area is residential, in the so-called Back of the Yards area, Darling is part of the meat industry and is logically located in that area.

The Board has taken these findings into consideration in determining its Order in this matter, along with the practical and economic reasonableness of abating the odors generated by Darling. The Order will be for Darling to cease and desist creating an odor nuisance as defined in Sec. 9 (a) and Sec. 3 (a) of the Environmental Protection Act at both its plants. Darling will be ordered to submit a compliance plan for the 45th St. plant, which shall include a truly effective negative pressure system and very strict housekeeping requirements to prevent material from spilling in such areas as the unloading docks to prevent odors. The 42nd St. plant will be ordered to cease and desist all odor emissions in violation of the Act, the method for which will be considered in the variance part of this decision. Darling will also be ordered to pay a monetary penalty for its violations of the Act.

VARIANCE PCB 72-73

This variance request is basically in response to the enforcement action filed against Darling and Company (PCB 71-348). Darling requests a variance for its glue plant located at 42nd St. and Ashland Avenue in Chicago, in the event such plant is found to be in violation. The Board will now consider this variance, since our decision in the enforcement case has found a violation of Sec. 9 (a) of the Environmental Protection Act.

The Agency recommended a denial of this variance or in the alternative a grant subject to conditions stated in the recommendation.

In effect Darling wants a variance from the Environmental Protection Act and regulations relating to air pollution, so that it can operate its glue plant until construction of a new and modern plant can be completed at its 45th Street facilities. Darling is requesting a 27-month variance from the time of granting to complete design of a new glue-making process, engineering to develop hardware for the new process, acquisition of the new equipment, and installation and shakedown of the new plant.

The existing plant has been in operation since 1882. It directly has 103 employees with an additional 139 support employees. The production at the plant varies from 2,000,000 to 3,000,000 lbs. of raw material a week. The raw material is brought into the plant by trucks. The material is dumped into a receiving hopper; from there it is transferred to a bone crusher and thence to cooking tanks so as to release the protein in a soluble form. The tallow and bone material are transferred from the plant for further processing, while the protein material is further refined until it is cooled to a "jello"-like form. Then it is dried and ground as glue and shipped to Darling's customers.

In 1963 the plant was required by the City of Chicago to run an air emission inventory. In 1965 this ripened into a formal compliance plan with the city which called for:

1. A counteractant spray system for the raw material receiving area and the pressed bone meal loading area.
2. A cyclone entrapment separator, surface condenser, and boiler incinerator for control of non-combustible gases from the bone cookers.
3. A 75,000 CFM ventilation system using counteractants, along with a sealing of windows, etc., to prevent escape of odors.
4. A 25,000 CFM vent duct and fan system to control emissions from the drum dryers.
5. Hoppers to eliminate bulk storage of pellet glue on the floor.
6. Research and development to eliminate bacterial and fun-

gicidal activity in the cooling tower system to eliminate it as a possible odor source.

This program received approval by the city in 1966. Since that time, Darling has decided that the best course for them to take was to develop a new glue-making process and construct a new plant for it to run in. Testimony by Mr. Rose and Mr. Mitchell showed a dearth of research material on glue making. Most of the plants that do make glue are old, such as Darling, or designed to handle much smaller quantities of material than Darling does (R. 7/26/72 P. 21). Darling is the only bone glue plant in Illinois.

The Board appreciates that the development and research to develop a new process for a product as volatile as protein glue is a long and involved process and cannot be done overnight.

The new plant will be located at 1245 W. 45th Street in Chicago. The improvements of the new plant as compared to the present site are alleged to be as follows:

1. The new plant will reduce the number of floors from 5 to 3, thusly lowering the number of transfers.
2. The unloading docks are twice as large, to cut down on the time trucks with raw materials must wait for unloading.
3. There will be no need to truck bone meal any more.
4. Cooling towers will be eliminated. Instead there will be a water treatment plant with extended aeration and a clarifier.
5. Protein condensation will be done more efficiently.
6. Larger and more efficient process units.
7. The boiler house at 42nd St. will be eliminated.

The proposed completion schedule is as follows:

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| 1. Environmental Protection Agency review of sources and engineering | 6 months |
| 2. EPA permit approval | 2 months |
| 3. Equipment procurement | 12 months |
| 4. Installation of equipment | 4 months |
| 5. Shakedown and startup of plant | 3 months |
| | <u>27 months</u> |

Since this petition was filed in February of 1972 the 27 month period should be over in March of 1974.

Mr. Rose of Darling testified that one of the reasons for the new plant is Darling's determination that not much more can be done to eliminate odors at the old plant (R. 12/26/72 P. 34). \$400,000 to \$500,000 of the cost of the new plant and process will be for environmental equipment. Also, part of the \$200,000 spent by Darling on its sewage treatment plant is attributable to the glue plant (R. 7/26/72 P. 78).

Thomas Mitchell, director of research for the glue operation, testified as to the economic advantage to Darling to have non-odorous glue and processing because the value of the product is reduced by unpleasant odors (R. 7/26/72 P. 99).

The data acquired at the hearing in 1972 was updated in 1973 when Mr. Hugo Grassl of A. E. Epstein Consulting Engineers testified as to the progress of the work on December 3, 1973.

Mr. Grassl testified to problems that Darling and Epstein were having in completing the new glue process and acquiring equipment to implement it. The basic problem is that glue liquor is a non-Newtonian fluid, and as such its flow is unpredictable (R. 12/3/73 P. 249). This means that equipment and pumps that could be used for processing Newtonian liquids would not be appropriate for handling the glue liquor. The process must be done expeditiously, with little delay, or the glue hardens and clogs all of the equipment (R. 12/3/73 P. 251).

He testified that problems developed in designing the equipment as well as getting manufacturers to bid on the job, because of the nature of the glue operation (R. 12/3/74 Pp. 250-287). Respondent's Exhibit #2 shows the new process and floor plan layout, which has been designed with environmental and odor considerations being integrated into the plan. All air in the plant will be exhausted to scrubber units and the new plant will be kept under effective negative pressure (R. 12/3/73 P. 261). It is his opinion that the new process and plant will be ready for operation by the end of 1974 (R. 12/3/74 P. 306). Equipment is now on order and installation should begin in March. The testimony showed that this completion date is about 9-12 months past the original 27 months requested from the time of the filing of the variance petition. The reason for this is that problems developed in designing the equipment for the plant and the new evaporation drier for the plant was delayed about 18 months in working out this problem.

Thomas Mitchell of Darling testified that the original plan of Darling was to have a variance of 27 months from the time of its grant, but that Darling has continued to work steadily on the plan, and though the course of this action has been long and drawn out, Darling did not sit and wait to continue work on the plan (R. 12/4/73 P. 385).

Darling alleges that the failure to grant the variance would be an unreasonable and arbitrary hardship, as they would be forced to close

down their glue operation, and the nature of the glue market being the way it is, would cause a loss of customers, both for the glue and for the acquisition of raw materials that would never be recovered (R. 7/26/72 P. 73). Though the Board does not readily accept the argument that a failure to grant a variance is a close down order, as a variance is basically only a shield from enforcement (E. I. du Pont de Nemours and Co. v. Environmental Protection Agency PCB 73-533), here Darling is under an Order of the Board (PCB 71-348) to cease and desist the odor violation of Sec. 9 (a) of the Environmental Protection Act. Darling is no longer just subject to prosecution; they have been prosecuted and found in violation. To deny them a variance here means that they must shut down or face court action in the nature of contempt and injunction for violating a Board Order (Environmental Protection Act Sec. 42). Darling's shutdown at 42nd St. would be a great loss, not only to the corporation, but also to the employees who would be put out of work as well as the loss of Darling's rendering capacity to dispose of the waste products from the meat industry.

The environmental impact of Darling's continued operation of course centers around the odors. There is an adverse impact on the environment, but the Board finds that since this odor problem has existed in the area for years, a few more months will not be so detrimental to the environment as compared to the loss to Darling and its employees.

It should also be noted that Darling will not be given carte blanche during the running of this variance. It shall be required to seal all windows in the plant as well as to file with the Agency reports as to odor emissions. Also, a plan as to regular housekeeping and maintenance will be required.

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

ORDER - PCB 71-348

IT IS THE ORDER of the Pollution Control Board that:

- 1) Darling and Company shall, within 90 days from the entry of this Order, submit to the Environmental Protection Agency a plan to abate nuisance odors from its 45th St. rendering facility.
- 2) Darling shall, within 120 days from the entry of this Order, cease and desist emitting nuisance odors in violation of Sec. 9 (a) of the Environmental Protection Act at its 45th St. facility.
- 3) Respondent shall pay, for violations at both facilities as detailed above, the sum of \$5000 to the State of Illinois within 35 days from the date of this Order. Penalty payment by certified check or money order payable to the State of Ill-

inois shall be made to: Fiscal Services Division, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706.

PCB 72-73 ORDER

1. Darling and Company is granted a variance from Sect. 9 (a) of the Environmental Protection Act for its 42nd St. plant until January 31, 1975, subject to the following conditions:
 - a) Darling and Company is ordered to submit to the Environmental Protection Agency for its approval a maintenance program designed to achieve an attainable reduction of odorous emissions from its 42nd Street plant, which shall include but is not limited to stringent housekeeping requirements, controlled ventilation, and sealing of windows to maintain negative pressure in the plant, within 60 days of the entry of this Order.
 - b) Darling and Company shall submit monthly reports to the Agency reporting on the compliance program required in subparagraph 1 (a) of this Order.
 - c) Darling and Company shall submit a compliance plan to the Agency, detailing the new glue plant and process, along with a schedule for completion of the plan within 60 days of this Order.
 - d) Darling and Company shall diligently carry out all programs outlined in the plan ordered in subparagraph 1 (c) of this Order.
 - e) Darling and Company shall submit quarterly reports to the Agency starting 90 days from the issuance of this Order, which detail the progress of the construction as specified in the compliance plan required under subparagraph 1 (c) of this Order.
 - f) Respondent shall, within 35 days from the date of this Order, post a performance bond in a form satisfactory to the Agency in the amount of \$100,000, guaranteeing compliance with Order #1, subparagraphs (c), (d), and (e).

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, certify that the above Opinion and Order was adopted by the Board on the 14th day of March, 1974, by a vote of 5 to 0.



Christan L. Moffett