ILLINOIS POLLUTION CONTROL BOARD
March 13, 1975

ENVIRONMENTAL PROTECTION AGENCY, Complainant,	)	
v.	)	PCB 74-195
DRAPER AND KRAMER, INC. Respondent.	)	

Mr. Jeffrey S. Herden, Assistant Attorney General, appeared on behalf of the Environmental Protection Agency;
Mr. Edwin A. Rothschild, appeared on behalf of the Respondent.

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

This is an enforcement action brought by the Environmental Protection Agency (Agency). Draper and Kramer (Respondent) operate an air conditioning unit, including a cooling tower, near the south end of its Lake Meadows development in Chicago, Illinois, which cools an apartment building and a clubhouse near the unit. The unit also prepares ice to convert adjacent tennis courts to a skating rink in winter months. The unit has a 400-ton cooling capacity and circulates about 1200 gallons per minute. For much of 1973 a chromate-based rust inhibitor was used in the system. The Complaint alleges that beginning on or about July 23, 1973, and continuing to the day of the Complaint, May 24, 1974, Respondent operated the cooling tower in a manner which caused or allowed the discharge of a toxic vapor and yellowish mist so as to cause air pollution in violation of Section 9(a) of the Environmental Protection Act (Act).

The Agency presented as witnesses seven citizens who live in townhouses immediately to the south of Respondent's cooling tower. These witnesses testified that they were subjected, especially during windy days, to a spray emanating from the top of the tower (R. 52, 92, 102, 188). They claimed that exposure to the spray caused physical discomfort, affected the growth of foliage, and caused damage to homes, vehicles and clothing. Several of them also claimed that they had stopped using their backyards as a result of the spray (R. 47, 99, 194).

The various afflictions attributed to the spray included redness of eyes, nasal congestion, earaches (R. 93), sore throats (R. 215), stinging eyes and deposits on the skin (R. 235). Dr. Williams, one of the complaining citizens, testified as to his opinion of the health effects of chromate on the human body. He stated that inhalation of chromate can cause nasal septal perforation and ulcerations; ingestion can cause nauseal vomiting, severe hepatitis and abdominal cramps; and skin contact can cause chronic eczematoid general dermatitis (R. 40).

These citizens also claimed -- and photographs and samples admitted into evidence purported to show -- that the spray was leaving a gray-white deposit on the foliage, resulting in withering and a marked difference between those plants exposed to the spray, and those which were not (R. 52, 93, 139, 191, 216, 237). The spray was also blamed for damage to automobile paint (R. 62, 189), pitted windows (R. 50), house framing (R. 146), and clothes (R. 190, 198).

An Agency engineer, Mel Villalobos, made several visits to the area in response to citizens' complaints. On July 24, 1973 he experienced burning lips and itching skin upon coming in contact with the spray (R. 269). He also noticed that the sides of trees facing the tower were wilted, as was other vegetation in the backyards of adjacent houses (R. 270). Subsequent inspections were made on August 23 and September 26. On this latter date Mr. Villalobos compared leaves near the cooling tower with leaves near Respondent's office, and found the former wilted with yellow-brown spots, while the latter did not have those characteristics (R. 342).

Respondent presented several witnesses to refute this testimony. Dr. Leon Dingle testified that he had played tennis for five years at the Lake Meadows tennis courts next to the tower. He had felt the spray, but experienced no physical reaction (R. 474). Cabie Maxwell, Chief Engineer at Lake Meadows, claimed neither he nor his assistants had ever experienced physical discomfort while near the tower (R. 406). Paul Dunn and George Anderson, assistant Vice President and Vice President of Draper and Kramer respectively, also testified that they suffered no discomfort around the tower (R. 439, 452).

Weighing the testimony presented the Board finds that there is sufficient evidence to find a violation of Section 9(a) of the Act. Although Respondent's witnesses disclaim any adverse health effect when in contact with the

spray, it is clear that their exposure to it was not as sustained as that of the complaining citizens living adjacent to the tower. Moreover, it should be noted that the tennis courts are located to the north of the tower, while the testimony indicates that the affected foliage occurs to the south of the tower, in the direction of the citizens' townhouses.

The Board takes notice of the effects of airborne chromates reported in the National Institute for Occupational Safety and Health document entitled "Occupational Exposure to Chromic Acid". As reported in this document, "exposure to mixed chromite and chromate compounds has been shown to cause ulceration of the skin, dermatitis, ulceration and perforation of the nasal septum, inflamed mucosa, irritation of the conjunctiva, and cancer of the lung."

The Board also notes that the American Conference of Governmental Industrial Hygienists in the report "Documentation of the Threshold Limit Values" established a maximum exposure level for airborne chromic acid and chromates at 0.1 mg/m^3. With the chromates in the cooling water and with the cooling water mist blowing on the neighbors, the people were undoubtedly exposed to chromates, but at an unknown level. We cannot assess, therefore, the health effect of this exposure, except to say that exposure to emissions of chromates should be minimized and emitters of chromates should by now be aware of the potentially seriousness of their emissions.

Respondent argues that there is no analytical evidence of air pollution since no tests were ever performed on the atmosphere or the deposits on the foliage, and since the only test of the water in the cooling tower was not performed until after the use of the rust-inhibitor had ceased. Respondent further argues that the evidence as to the toxicity of chromate was not probative since there was no indication of the concentrations actually received by the complaining citizens. The fact that no analytical tests were ever performed is irrelevant to the Board's considerations here. The Respondent was not charged with a violation of a regulation limiting emissions or setting standards for ambient air quality. Indeed, as the Agency reply brief points out, there are no such regulations applicable here. The Complaint does charge a violation of Section 9(a) of the Act, which reads, in part: "No person shall cause or threaten or allow 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." The evidence desired by the Respondent is clearly unnecessary here to establish a violation of this Section of the Act, as read together with the definitions of "air pollution" and "contaminant" found in Section 3.

Respondent also argues that the Complaint relates solely to the use of the rust-inhibitor and the subsequent discharge of chromate. The Agency points out, though, that paragraph six of the Complaint speaks of both toxic vapor and yellowish rust (Complainant's Reply Brief 2). It rightly asserts that the discharge of the mist itself, with or without chromate, is a contaminant within the meaning of that term as defined in Section 3(d).

In finding the Respondent in violation of Section 9(a) we have duly considered the factors set out in Section 33 of the Act. We find the injury to the complaining citizens substantial, the economic and social value of the air conditioning system of some importance and the location of the tower unsuitable to the adjacent townhouse residents. Furthermore, elimination of the discharge was relatively simple. The record indicates that Respondent ceased using the rust inhibitor by October 11, 1973 (Respondent Exhibit 3) and constructed a barrier to contain the spray in September 1974 (R. 427, 463).

Due to the potential seriousness of the emissions, the Respondent should have acted to prevent his emissions from impinging on the neighborhood. The failure to take preventive action, through ignorance or other reason, subjected the nearby residents to not only the effects testified to, but also to potential health effects testified to by Dr. Williams. For this reason, we will assess a monetary penalty of $1,000.

The record indicates that Respondent, shortly after being notified by letter by the Agency (on July 26, 1973) of a possible problem with its air conditioning system, took steps to alleviate it. At the suggestion of the Agency they requested the manufacturer of the rust-inhibitor for an analysis of the chemical and asked for recommendations on other corrosion inhibitors of a non-toxic nature (R. 433-435). They meanwhile reduced considerably the use of the chemical. A daily log, admitted as Respondent Exhibit 3, indicates the exact course by which the rust-inhibiting additive was phased out, whereby after September 1, the chemical was only added twice intentionally, and once inadvertently on October 11. During this period, Respondent was in correspondence with the Agency over the problem, and met with Agency representatives on August 24 (R. 366). Finally, Respondent notified the Agency, on September 28, that they had ceased using the rust inhibiting chemical altogether (R. 442).

Although there is some controversy as to how much and how soon the Agency expected action, we feel the record as a whole indicates the Respondent cooperated fully and quickly

to alleviate a problem which at the time was only an unproven allegation. Moreover, Respondent's letter to the Agency informing them of the cessation of the use of the rust inhibitor came almost eight months before the filing of the Complaint on May 24, 1974. In this period Respondent had no further contact with the Agency and had no indication that they had not fully complied with the Agency's request (R. 422). Furthermore, it was stipulated that the cooling tower caused no adverse effects after the use of the rust inhibitor was discontinued (R. 481). It was not until after the first hearing in this case, on July 17, 1974, that Respondent became aware that the residents of the townhouses continued to object to the spray, irrespective of its toxicity. Within three weeks of this hearing Respondent had entered into a contract for the construction of a barrier to retain the spray (R. 426). In light of these factors we deem it appropriate to assess a minor penalty in this case.

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

ORDER

1. Draper and Kramer, Inc., shall cease and desist from further violations of Section 9(a) of the Environmental Protection Act.

2. Draper and Kramer, Inc. is ordered to pay the sum of $1,000 as a penalty. Penalty payment shall be made within 35 days to the Fiscal Services Division, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706. Said penalty payment shall be made in the form of a money order or certified check.

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 13th day of March, 1975 by a vote of 4-0.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board