

ILLINOIS POLLUTION CONTROL BOARD  
October 18, 1979

IN THE MATTER OF: )  
 )  
AMENDMENTS TO THE AIR ) R78-2  
POLLUTION CONTROL REGULATIONS )  
PERTAINING TO OPEN BURNING )  
IN DISASTER AREAS )

PROPOSED OPINION OF THE BOARD (by Mr. Dumelle):

This proceeding was initiated by an emergency rulemaking petition filed by the Agency on April 13, 1978. On that same day the Board adopted emergency amendments to Rules 501(i) and 501(j) of Chapter 2: Air Pollution. The Board's Order was published in Environmental Register #170 on April 21, 1978. The Agency filed a similar proposal on January 31, 1979 after expiration of the Order. The Board adopted another emergency Order on February 1, 1979 which was published in Environmental Register #189 on February 9, 1979. Joint technical and economic impact hearings were held on the Agency's proposals on August 29, 1979 in Springfield, and September 12, 1979 in Chicago. On September 20, 1979 the Board adopted a Proposed Order to permanently amend Rules 501(i) and 501(j). The Proposed Order was published in Environmental Register #201 on October 1, 1979. This Proposed Opinion supports the Board's two emergency Orders and the Proposed Order.

NEED FOR THE REGULATION

Open burning of refuse was prohibited under Rule 2-1.2 by the Air Pollution Control Board (APCB) unless a variance was obtained from the APCB's Technical Secretary. This rule was maintained in effect by Section 49(c) of the Act. The Board reaffirmed this prohibition but provided a permit system with specific exemptions to allow open burning of landscape waste in certain areas with an air curtain destructor or a comparable device (In the Matter of: Open Burning Regulations, R70-11, 2 PCB 373-383, September 2, 1971). On May 17, 1973 the Agency asked the Board to amend the Open Burning Regulations to permit burning of "clean" wastes resulting from floods, large storms or other similar disasters. On June 28, 1973 the Board adopted amendments to allow this burning whenever a disaster was declared pursuant to the U.S. Disaster Relief Act of 1970, Public Law 91-606. In evaluating disasters declared by the Governor, the Board stated as follows:

"The record clearly did not support the inclusion of the Illinois Disaster Relief Act in the Agency's proposal. In fact Roy Brown testified that, to his knowledge, the

Illinois Disaster Relief Act is not used unless the U.S. Disaster Relief Act is also invoked. Therefore, broadening the Regulation in this manner would not actually broaden the use of this open burning procedure," (In the Matter of: Proposed Amendments to Open Burning Regulations, R73-7, 9 PCB 275, 276, September 13, 1973).

On March 23 and 24, 1978 a severe ice storm struck 24 counties in Central Illinois. Governor Thompson declared these counties to be a disaster area and requested a similar determination by President Carter (Ex.1). The President declined to do so (R.44). As a result the Agency asked the Board to adopt emergency amendments to enable it to act on the basis of the Governor's decision. The Board found that an emergency existed and that the provisions of Section 27(c) of the Act authorized temporary amendments. The amendments were limited to a period of 150 days by Section 5.01(b) of the Administrative Procedure Act.

The Agency issued 10 permits during this period (R.20, Ex.2). The City of Springfield burned 10,000 truckloads of material which required two months of collection (R.39).

On December 31, 1978 and January 1, 1979 an ice storm struck Madison and St. Clair counties. On January 12-14, 1979, 66 counties in Northern Illinois were devastated by a snow storm of staggering proportions. The Governor responded with two emergency declarations on January 26, 1979 (Ex.3). No request for a federal determination was made because a positive response was not expected (R.45). The Agency filed another emergency petition and the Board adopted a second 150 day emergency amendment. This time the Agency issued 17 open burning permits (R.23, Ex.3).

The Board reaffirms its emergency decisions. Neither the disasters nor the President's decision could have been foreseen. The situation required immediate attention and could not await the normal rulemaking process.

The Agency testified that it knows of only 17 air curtain destructors in Illinois. Eleven of these are stationary and 6 are portable (R.23). The number of applications to operate these devices has been on the decline with 2 or less requests per year (R.77-78). Consequently it does not appear feasible to require their use during times of emergency.

The Agency also indicated that the type of waste covered by this regulation (clean wooden building debris, landscape waste and agricultural waste) was a poor candidate for disposal in scarce landfill space (R.32). This waste occupies an inordinate volume, is unstable, does not compact well, and requires excess cover (R.31). There is no present capability to recover methane gas from decomposition (R.38).

In three public comments the Illinois Department of Transportation (IDOT) supported the proposal. IDOT stated that limited manpower during emergencies was needed to clear highways and haul debris to nearby burn sites. Landfills are usually much further away. Chipping and cutting for firewood were cited as labor intensive alternatives. The City of Springfield commented that the refuse constituted a health, fire and rodent hazard and had to be disposed of as quickly as possible.

The Agency showed that no violations of the National Ambient Air Quality Standards for total suspended particulate matter could be attributed to either of the recent disasters (R.97, Ex.5).

The Board concludes that emergencies require immediate action. Communities hit by disasters should not be forced to consume an undue amount of their dwindling landfill space or to engage in costly recycling or firewood production. The limitations of Rule 504 should provide adequate protection of ambient air quality.

#### ECONOMIC IMPACT

The Institute of Natural Resources submitted a study to the Board entitled Economic Impact of Allowing Open Burning in Disaster Areas, R78-2 (INR Document No. 79/07). The study compared the private and social costs of open burning, landfilling, the use of air curtain destructors, and recycling for disposal of the refuse covered by this regulation.

Costs for open burning were broken down in 1975 dollars in the following amounts per ton of waste burned:

\$1.70	operating costs
.85	for fire risk including costs to reduce this hazard
5.00	for pollution damage due to particulates, carbon monoxide, hydrocarbons, and nitrogen oxides
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\$7.55	Total Cost

The costs for pollution damage are based on emission factors, a USEPA study of 40 metropolitan areas including Peoria, Illinois, and additional studies. The study author did not conclude that there was a direct causal relationship between emissions from open burning and fixed costs. The \$5.00 figure was simply the only comparative cost available.

Costs for landfilling per ton of waste were broken down as follows:

\$6.70	operating costs
.30	damages from leachate and gas formation
.55	future increased costs from using up present landfill space
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\$7.55	Total cost

The operating costs were high because of the problems associated with disposal of these types of debris and the impact of disaster conditions. Leachate costs were based on costs for water purification. Damages from gas formation were aggregated into methane production and projected over a 20 year period for decomposition. Future costs for consuming present landfill space were based on a 10 year life for landfills and 50% extra travel time from the present average of 4.36 miles. This last cost is slightly higher than a similar one calculated in Economic Impact of Prohibiting Landfill Development Within 2000 Feet of Public Schools (INR Document No. 79/05) which was submitted as part of the proceeding designated as R77-14.

While these two total costs appear to be equal, the study pointed to the fact that only 34% of the costs of open burning are borne by local government. With landfilling, the local government's share rises to 96%. This disparity points to the real need for this regulation. On one hand, the environmental costs of open burning are very difficult to assess in any real way. On the other hand, the ability of local communities to generate revenue to dispose of disaster debris is quite real, if not acute.

Costs per ton of waste burned from the use of air curtain destructors were broken down as follows:

\$3.60	operating costs
.45	fire risks
2.50	pollution damage
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\$6.55	Total cost

The study assumed that air curtain destructors could be generally available. The Agency did not agree (R.77-78). The lower cost for fire damage was based on better control with this technology. The pollution costs were calculated by simply cutting the costs of open burning by 50%. The study concludes that the pollution costs are conservatively high. While all of these costs are not qualified as well as the other alternatives, they do show a relatively high share (62%) of the burden on local government.

Shredding tree limbs to form wood chips resulted in a range of costs from \$11.00/ton for labor and reduced hauling costs to a possible benefit of \$29.00/ton from providing this material as a community service. The study admits that

this benefit will accrue only when someone wants this material. The enormous quantities of wood chips generated by a disaster might prove to be more than most communities could handle.

Cutting up tree limbs for firewood would cost approximately \$11.00/ton. Since this resource would be burned, an estimate of \$4.48 was attached to pollution damage. While this alternative as well as chipping may result in economic benefit, local government is still faced with significant expense.

The wood chips and firewood could be sold to recoup these costs. This would involve some additional costs (estimated at \$1.00/ton) and may not be feasible during times of disaster. Wherever these alternatives are attractive, resourceful local public officials will not need encouragement from the Board to follow them. The City of Jacksonville indicated that some of their debris was distributed for firewood.

Based on the above analysis, the Board concludes that adoption of the proposed regulation will not have any adverse economic impact on the people of the State of Illinois.

LANGUAGE OF THE PROPOSED REGULATION

The Proposed Order does not refer to any specific Federal or State laws. These references were deleted to avoid the need for future rulemaking in the event of future amendments by Congress or the General Assembly. The present Rules 501(i) and 501(j) refer to the U.S. Disaster Relief Act of 1970 which has already been repealed and replaced by 1974 legislation.

One witness and one comment addressed the need for a greater role in local decision making in this process (R.100-106). Since this proceeding deals only with disasters which are declared on the Federal and/or State level, it would not be appropriate to open the scope of the Board's decision.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Proposed Opinion of the Board was adopted on the 18<sup>th</sup> day of October, 1979 by a vote of 4-0.

  
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Christan L. Moffett, Clerk  
Illinois Pollution Control Board