

ILLINOIS POLLUTION CONTROL BOARD  
February 2, 1989

IN THE MATTER OF: )  
 )  
MANAGING SCRAP TIRE ACCUMULATIONS )  
FOR THE CONTROL OF MOSQUITOES ) R88-24  
PART 849 )

PROPOSED RULE. SECOND NOTICE.

PROPOSED OPINION AND ORDER OF THE BOARD (by J. Marlin):

On September 22, 1988, the Board proposed a rule for First Notice in this matter. That proposal was published in the Illinois Register on October 7, 1988. 12 Ill. Reg. 15828. The Board held hearings in this matter in Chicago and Springfield on November 22, 1988 and December 6, 1988, respectively. Members of the public were in attendance at both hearings. By his Order of September 29, 1988, which was reiterated at the December 6, 1988 hearing, the Hearing Officer ordered that comments in this matter were due by December 30, 1988. The Department of Commerce and Community Affairs (DCCA) filed comments on January 19, 1989. Those comments are accepted.

This Opinion will include the Board's Economic Impact Study (EcIS) determination and discuss changes made to the version of the rule which was proposed for First Notice. References to the emergency rule transcript (Exh. 32) will be in the form of RI \_\_\_\_\_. References to the emergency rule Final Opinion will be in the form of O \_\_\_\_\_. References to the transcript in this proceeding are in the form of RII \_\_\_\_\_. Most material in the First Notice Proposed Opinion is not repeated here. A comprehensive Opinion will accompany the Final Order.

Economic Impact Determination

Pursuant to Board Resolution 89-1 the Hearing Officer issued an Order on January 11, 1989, which stated that the Board would accept comments as to whether an Economic Impact Study (EcIS) should be performed for this rulemaking. Comments concerning the EcIS issue were due by February 1, 1989. The Board received one such comment (P.C. #8) from Midwest Rubber Reclaiming Division (Midwest). Midwest points out the difficulty of processing the 11-12 million scrap tires generated in Illinois annually or treating them with pesticides. It has an inventory of about 200,000 tires stored outdoors on 20-25 acres. The facility has the capacity to process 2.5 million tires per year. Midwest asserts that processing tires is a permanent solution while treating the piles is a never ending liability. It raises the question as to whether it is economically feasible to treat all tire accumulations in Illinois, and at what cost.

Section 27(a) of the Environmental Protection Act (Act) has recently been amended by P.A.85-1048 to give the Board exclusive authority in deciding whether an EcIS should be performed for a rulemaking. Since that change became effective January 1, 1989, Resolution 89-1 sets forth the procedure that the Board will utilize for rulemakings which were filed prior to 1989 and for which an EcIS determination had not been made by the Department of Energy and Natural Resources. In part, the amendments to the Act provide:

[T]he Board shall determine whether an economic impact study should be conducted. The Board shall reach its decision based on its assessment of the potential economic impact of the rule, the potential for consideration of the economic impact absent such a study, the extent, if any, to which the Board is free under the statute authorizing the rule to modify the substance of the rule based upon the conclusions of such a study, and any other considerations the Board deems appropriate. The Board may, in addition, identify specific issues to be addressed in the study.

Section 27(a) of the  
Act. (as amended by  
P.A.85-1048)

It is upon these criteria that the Board must make its EcIS determination in this matter.

The rule the Board proposes today requires that scrap tires be kept dry, be converted so as not to hold water or be treated with a pesticide during the mosquito breeding season. These requirements apply to commercial establishments which have accumulations of more than 50 scrap tires. This 50 tire limitation greatly reduces the universe of facilities which must manage scrap tires. For example, while most tire dealers will fall under the regulation, most gas stations which sell tires will not (RII at 239).

The least costly method of complying with the rule over the short term is treatment of tires by a property owner with pesticides approved by the Inter-Agency Committee on the Use of Pesticides (Committee). The Committee has approved the use of temephos and BTi for use on tire piles by unlicensed personnel (P.C.#5). Representatives of Clarke Outdoor Spraying Company (Clarke) of Roselle, IL, testified that they sell a temephos formulation at a cost of about \$100 for 25 pounds. At a per tire rate of 5.0 grams this amount would treat 2270 tires. This is a cost of less than five cents per tire. Labor involves placing a spoonful (5g.) of this dry material into tires. (RII at 152, ex.

41). Depending upon a variety of conditions the pesticide remains effective for 30 to 150 days. Clarke also provided estimates for treating larger tire accumulations. The company estimates the cost of professionally treating a pile of 10,000 tires with temephos at \$2,081.05 for the two annual treatments assumed to be necessary. Treatment with BTi would cost \$5,186.78 for seven required treatments. The pesticide alone for 10,000 tires and the specified number of treatments would be \$881.05 for temephos and \$986.78 for BTi. (Exh. 41). A contract for treating 65,000 tires in Chicago during the 1988 season had an estimated cost of \$5,930.70. This includes two treatments with a granular pesticide and 14 professional inspections to be determined if treatment were needed. Almost \$2,000 of this amount was for control of adult mosquitoes which is not required by the proposed rule. (Exh. 25).

A representative of the City of Urbana testified about a cooperative effort Urbana has with the City of Champaign and the University of Illinois. These entities have since 1976 controlled mosquitoes as part of a St. Louis Encephalitis Control program. This effort includes treating tires with BTi. Under the program, seasonal employees check tire piles and other breeding areas on a regular basis and treat as needed. The cost of the program in this urban area with a population of about 100,000 is about \$25,000 per year. (RII at 211). A program targeted at tires only would be less costly.

Shredding tires permanently solves the mosquito problem since the tires no longer hold water. Such permanent disposal is preferred since the cost of periodic pesticide treatment over time will exceed the cost of shredding and disposal and lead to resistance in mosquitoes. This is particularly true where the nature and location of the piles leads to labor intensive efforts. The director of the Northwest Mosquito Abatement District estimated that about 30 percent of his district's overall manhours of insecticide use and between 10 and 30 percent of his total budget unit went into tire treatment. (RII at 143). On the other hand, the Macon Mosquito Abatement District treated tires at a cost of 120 man hours and \$60 in materials. (RII at 223).

A representative of Oxford Energy Company (Oxford) testified as to the experiences of his company in scrap tire management. He estimated that 250 million tires are discarded in the U.S. annually and that only between 20 and 40 million of them are reused as tires. The remainder contain the equivalent of 500 million gallons of oil worth about \$214 million. Oxford believes that finding ways to tap that resource is the ultimate solution to the scrap tire problem. The company collects tires in California and on the East Coast. By 1990 Oxford expects to collect 25 million tires annually, turning 3 million over to retreaders, burning 15 million in its two fuel-to-energy plants and shredding the rest for fuel and other uses.

Oxford collects tires from businesses, municipalities and other entities. In general the cost of shredding tires is \$20 to \$40 per ton depending upon how clean the tires are. Picking up, transporting and shredding costs \$60 to \$80 per ton. One hundred passenger tires make up a ton. (RII at 249-270). Oxford estimates that a 30 megawatt power plant could utilize 10 million tires per year in Illinois. Such a plant would have a capital cost of \$60 million and be supported by up to four regional collection and shredding centers at a cost of one million dollars each. Alternatively, tires could be shredded and used as a fuel substitute along with coal. (RII at 256).

Other witnesses mentioned shredding costs of one dollar per passenger tire (RII at 95 and 112) and three dollars per truck tire. (RII at 95).

One tire dealer testified that he purchased a tire splitter for \$3,500 and is generally satisfied with its performance. The machine slices tires longitudinally so that they take up far less space and can be stacked so as to shed water. He termed the splitter a "moderate cost". (RII 235-237).

The cost of keeping tires dry was not discussed at any length, although Clarke estimates the draining cost at 20 cents per tire after each rain. (Exh.40).

The Department of Energy and Natural Resources (DENR) has identified five companies in the State that process scrap tires. Tire shreds can compete economically with \$20 per ton coal at a selling price of \$27.30 per ton or less. According to DENR there are not enough tire processors in Illinois presently to process all tires generated. (RII at 192-197).

It was generally agreed that landfills discourage the landfilling of whole tires and charge a premium to take them. According to DENR:

Solid waste landfills are becoming reluctant to accept whole tires for disposal because of problems with whole tires floating to the surface once buried, and landfill capacity problems in general which allow operators to be more selective in the types of materials they will accept. Some Illinois landfills will no longer accept whole tires, others will charge a premium fee for gate receipt. Many landfills still accepting tires charge an additional fee on a per tire basis of \$2 to \$5, or on a per cubic yard basis of \$12 or greater. (RII at 197).

Alternate uses of tires such as oil extraction, rubber reclaiming, use in asphalt and a variety of other processes exist, but are not common in Illinois. It is apparent that uses

exist for scrap tires, but it will take time to develop them on a scale necessary to handle the 10 million generated annually in Illinois.

The economic information contained in this record is sufficient for the Board to make an EcIS determination. The record shows that tires can be treated with relatively safe pesticides at less than five cents each and passenger tires can be permanently shredded at a cost of a dollar or less. The pesticide is readily available from at least one Illinois company and some shredding and processing capacity exists. This can be expected to increase as pressure mounts to properly dispose of tires. These costs are not excessive, particularly when compared to the cost of a new tire. Any facility with a special situation can apply for an alternate management program under Section 849.105, a variance, an adjusted standard, or a site-specific rule change. Given this situation the Board finds that an EcIS is not necessary in this matter, and the Board also finds that the rule is technically feasible and economically reasonable.

At hearing comment on the proposal largely centered on the issues of the number of tires that should trigger controls, the time span for controls and reporting requirements. The Illinois Environmental Protection Agency (Agency) and Illinois Department of Public Health (IDPH) both expressed concerns about available resources to address the tire associated problems. The Agency in particular requested that the permanent rule track the emergency rule in scope and that any broadening be phased in after the legislature acts on a comprehensive tire bill that would also address the solid waste aspects of the problem. (RII at 155). The Board generally agrees with this concept.

The draft proposal set ten tires as the limit at which scrap tire accumulation would not be regulated. At hearing it was well established that the target mosquitoes will lay eggs in only one tire (RII at 11, 76, and 244) but that new infestations of the Tiger Mosquito tend to be found in larger accumulations. (RII 77). Many witnesses considered the ten tire limit to be unpractical in terms of available resources. The Agency and IDPH both favor a 50 tire cutoff (RII 78 and 157) as does the Department of Commerce and Community Affairs (DCCA) (P.C.#7). Based on the testimony in this record, the reasoning used to set the 50 tire limit in the Emergency Rule (O at 27) remains valid. The Board again notes that local authorities remain free to regulate smaller accumulations at any location they deem appropriate.

Likewise, as in the Emergency Rule, the Board will accept the Agency recommendation (RII at 167) that the rule only apply to accumulations of tires at commercial facilities or those generated by commercial activities. This is consistent with the Emergency Rule provision. The Board notes that commercial facilities routinely ship or receive tires and this tire movement is the primary means by which species such as the Tiger Mosquito

spread. The Board will also continue to exempt scrap tires generated on a farm or livestock operation, given that they are not likely to be regularly transported. Scrap tire accumulations on agricultural land which are not the result of personal, agricultural, horticultural, or livestock raising activities are not exempt from the rule. The scope of the regulation may be expanded in later proceedings. This is consistent with phasing in tire regulations. The City of Chicago in particular asked for more time to comply. It explained its tire control program and the problems encountered with fly dumping. (RII at 104). The Board believes these concerns are not unique to Chicago.

The proposed rule applies to all accumulations in excess of 50 tires at commercial facilities. This includes persons who receive scrap tires for disposal, storage or processing and those who use scrap tires for such purposes as bumpers and weights. Unlike the Emergency Rule, all scrap tires at a facility fall under the rule, regardless of when they were accumulated.

The First Notice version of the rule required that tires be managed to control mosquitoes between May 1 and November 1 of each year. The tire dealers preferred that the dates not be changed. (RII at 229). The entomologists were uncomfortable with the May 1 date as perhaps being too late. Their views ranged from the need to gather more information on this topic to moving the date forward. (RII at 13,42,72, and 220).

Dr. Brown of the Macon Mosquito Abatement District recommended March 15 as a starting date based on observations that Tiger Mosquito larvae have been found in Evansville, Indiana as early as March. He also said that Tree Hole Mosquito larvae have been found in Decatur as early as the first week of May and Northern House Mosquito larvae as early as the first week of April. (RII at 220-223). Dr. Novak of the Illinois Natural History Survey presented temperature data supporting moving the time forward (RII at 42) and Dr. Haramis of Illinois Department of Public Health favored the April 1 date. Based on this testimony the Board will set the date at April 1. However, the proposed rule will not take effect until May 1, 1989, so this year's starting date for the implementation of management standards will be one month later than that of following years.

The Agency requested that regulated persons be required to report their accumulations and keep records of their tire management activities. (Exh.42). The tire dealers do not want reporting, but request that any reporting requirements carry as little burden as possible. (RII 230-233). The Board agrees with the Agency that enforcement requires that at least some record be kept and some information be reported. These proposed requirements are similar to those which were adopted in the Emergency Rule.

Regulated persons will be required to maintain documentation sufficient to demonstrate compliance. As a practical matter this

will involve keeping invoices on other records to show that tires have been professionally treated or that appropriate pesticides have been purchased and used. The person should have a tire management plan that an inspector can verify as being carried out. A plan which involves keeping tires dry converted will be easy for an inspector to verify visually. A plan involving regular pick up of tires for disposal may require supporting documentation such as a handling contract.

The tire dealers suggested that reprocessed tires be treated as new tires for purposes of this rule. Such tires are excluded from the definition of scrap tires unless they are commingled with scrap tires. Testimony indicated that reprocessed tires are readily distinguishable from scrap tires in that they are in general "clean", often have a label and are dyed or painted. They are generally well cared for and stored indoors. (RII at 220 and 233).

In addition to the above-described changes, some definitions have been refined in the interest of clarity, particularly that of "converted tire."

The presence of mosquito larvae in tires does not of itself constitute a violation of the regulation. It is expected that some mosquitoes will develop, especially with plans involving pesticides. Persons electing to use pesticides must keep records of treatment and segregate treated from untreated tires.

#### ORDER

The Board hereby proposes for Second Notice the following rule to be filed with the Joint Committee on Administrative Rules.

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER m: MANAGEMENT OF SCRAP TIRES

PART 849  
 MANAGEMENT OF SCRAP TIRES

Section

- 849.101 Definitions
- 849.102 Severability
- 849.103 Reporting of Scrap Tires and Their Disposition
- 849.104 Management Standards for the Accumulations of Scrap Tires
- 849.105 Alternate Management Programs For Accumulations of Scrap Tires
- 849.106 Persons Who May Apply Pesticides

Authority: Implementing Section 22 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1985, ch. 111 1/2, pars. 1022 and 1027)

(Source: Emergency rules adopted in R88-12 at 12 Ill. Reg. , effective May 1, 1988, for a maximum of 150 days, which is September 28, 1988; adopted in R88-24 at 13 Ill. Reg. , effective May 1, 1989.)

#### Section 849.101 Definitions

Except as stated herein and unless a different meaning of a word or term is clear from its context, the definitions of words or terms as are used in this Part shall be the same as those used in the Environmental Protection Act.

"Converted Tire" means a tire which has been manufactured into a usable product other than a tire, or otherwise altered so that it is no longer capable of holding accumulations of water. Converted tires include, but are not limited to, those which have been shredded, chopped, drilled with holes sufficient to assure drainage, slit longitudinally and stacked so as not to collect water or wholly or partially filled with soil, cement or other material to prevent accumulation of water. "Conversion" or "converting" means action which produces a converted tire.

"Generation" means the creation of a scrap tire by removal of a tire from a wheel (rim).

"New Tire" means a tire which has never been placed on a motor vehicle wheel (rim) for use.

"PERSON" IS ANY INDIVIDUAL, PARTNERSHIP, CO-PARTNERSHIP, FIRM, COMPANY, CORPORATION, ASSOCIATION, JOINT STOCK COMPANY, TRUST, ESTATE, POLITICAL SUBDIVISION, STATE AGENCY, OR ANY OTHER LEGAL ENTITY, OR THEIR LEGAL REPRESENTATIVE, AGENT OR ASSIGNS.

"Reprocessed Tire" means a tire which has been recapped, retreaded or regrooved and which has not been placed on a motor vehicle wheel (rim) since being reprocessed.

"Scrap Tire" means a tire which has been removed from use on a motor vehicle and separated from the wheel (rim). Any tire which is not a new tire, converted tire or reprocessed tire is considered to be a scrap tire until it is placed on a motor vehicle wheel (rim). A reprocessed or new tire which is commingled with or placed within an accumulation of scrap tires is considered to be a scrap tire. For the purposes of this Part only, a scrap tire is considered to be a waste.



"Tire" means a hollow ring, made of rubber or similar material, which is designed for placement on the wheel (rim) of a motor vehicle.

#### Section 849.102 Severability

If any provision of these rules or regulations is adjudged invalid, or if the application thereof to any person or in any circumstance is adjudged invalid, such invalidity shall not affect the validity of this Part as a whole or of any Subpart, Section, subsection, sentence or clause thereof not adjudged invalid.

#### Section 849.103 Reporting and Record Keeping

- a) Any person subject to the requirements of Sections 849.104 or 849.105 shall by July 1, 1989, report to the Illinois Environmental Protection Agency (Agency) the information required in subsection (c).
- b) Any person who after July 1, 1989, accumulates more than 50 scrap tires such that he is subject to the requirements of Sections 849.104 or 849.105 shall report to the Agency within 45 days of accumulation of such scrap tires the information required in subsection (c).
- c) Information required:
  - 1) The legal name and post office address of the person making the report;
  - 2) The location of the accumulation including street address, municipality or township, county, and if appropriate, descriptions of rural locations;
  - 3) The approximate number of scrap tires at the location;
  - 4) Whether the person ships to or receives scrap tires from other locations and the estimated number of scrap tires shipped or received annually;
  - 5) What use or disposition a person makes or plans to make of the scrap tires; and
  - 6) The manner in which the accumulation is stored prior to such use or disposition.
- d) Reports required by this Section shall be sent to:

Illinois Environmental Protection Agency  
 Division of Land Pollution Control  
 2200 Churchill Road  
 P.O. Box 19276  
 Springfield, IL 62794-9276

- e) Any person subject to the requirements of Sections 849.104 or 849.105 shall develop a compliance plan to achieve compliance with those Sections for managing scrap tires to control larval and pupal mosquitoes and shall maintain records and manage scrap tires in such a manner as to be able to demonstrate that such plan is being implemented. This activity may include but shall not be limited to the following:
- 1) Segregating treated from untreated scrap tires;
  - 2) Maintaining invoices for pesticides purchased or the services of a professional pesticide service;
  - 3) Maintaining records on the dates of periodic treatment;
  - 4) Documentation showing approval of any Alternate Management Program under Section 849.105;
  - 5) Documentation such as hauling contracts or invoices which indicate the dates on which or frequency with which scrap tires are removed from the location; or
  - 6) Such other information as may be useful or necessary to document that the plan is being implemented as planned.

Section 849.104 Management Standards for Accumulations of Scrap Tires

- a) This Section does not apply to scrap tires accumulated solely as a result of personal, agricultural, horticultural, or livestock raising activities.
- b) Except as otherwise provided in Section 849.105, between April 1 and November 1, no person shall accumulate or maintain an accumulation of more than 50 scrap tires from that person's commercial or business activities or maintain such an accumulation on any commercial or business property unless the tires are either:
  - 1) Drained of water on the day of generation or receipt and kept dry by being:
    - A) Placed within a closed container or structure; or

- B) Covered by material impermeable to water; or
  - C) Drained or otherwise managed so as to remove water within 24 hours after each precipitation event; or
- 2) Drained of water on the day of generation or receipt and processed into converted or reprocessed tires within 14 days; or
  - 3) Drained of water on the day of generation or receipt and treated within 14 days, with a pesticide appropriate to prevent the development of mosquito larvae and pupae, and treated again as often as necessary to prevent such development, taking into account the persistence (effective life) of the pesticide utilized; or
  - 4) Treated on the day of generation or receipt with a pesticide appropriate to prevent the development of mosquito larvae and pupae and treated again as often as necessary to prevent such development, taking into account the persistence (effective life) of the pesticide utilized.

Section 849.105      Alternate Management Programs For Storage of  
Scrap Tires

- a) A person with an accumulation of scrap tires may employ mosquito control or management programs different than those specified in Section 849.104 if, and only if, that person files a complete plan for an alternative program with the Agency which details the control or management measures which will be taken. An alternative program is complete only if it is accompanied by a statement from the Illinois Department of Public Health that such program is expected to achieve results for control of larval and pupal mosquitoes substantially equivalent to those which would be achieved by full compliance with the requirements of Section 849.104. A person may file a plan on behalf of one or more persons for the management of a number of different accumulations. Each person whose program is included in the plan need not file a separate plan, but must be identified in the submitted plan.
- b) Requests for statements of substantial equivalency shall be submitted to the Illinois Department of Public Health and shall be accompanied by information sufficient to allow the Department to assess the effectiveness of the alternative program. Such requests shall be sent to:

Division of Environmental Health  
 Office of Health Protection  
 Illinois Department of Public Health  
 525 W. Jefferson Street  
 Springfield, IL 62761

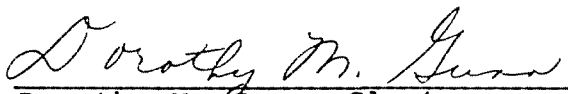
Section 849.106 Persons Who May Apply Pesticides

No person shall apply any pesticide to scrap tires, unless:

- a) THE PERSON IS A CERTIFIED PESTICIDE APPLICATOR CERTIFIED BY THE ILLINOIS DEPARTMENT OF AGRICULTURE PURSUANT TO THE ILLINOIS PESTICIDE ACT OF 1979 (Ill. Rev. Stat. 1987, ch.5, par 801 et seq.); or
- b) THE PERSON IS APPLYING A GENERAL USE PESTICIDE SPECIFICALLY APPROVED BY THE INTER-AGENCY COMMITTEE ON THE USE OF PESTICIDES FOR USE BY AN UNCERTIFIED APPLICATOR ON SCRAP TIRES pursuant to Section 11.1(7) of the Illinois Pesticide Act of 1979, as amended by P.A. 85-1327, effective August 31, 1988 (Suppl. to Ill. Rev. Stat., ch.5, par. 811.1(7)).

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Proposed Opinion and Order was adopted on the 2<sup>nd</sup> day of February, 1989 by a vote of 7-0.

  
 Dorothy M. Gunn, Clerk  
 Illinois Pollution Control Board