

ILLINOIS POLLUTION CONTROL BOARD
April 27, 1989

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

ADOPTED RULE. FINAL ORDER.

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

On April 21, 1988 the Board adopted an emergency rule in Docket R88-12, Managing Tire Accumulations to Limit the Spread of the Asian Tiger Mosquito. 12 Ill. Reg. 8485. The rule was promulgated in response to recent infestations in the State of the Asian Tiger Mosquito. The emergency rule expired on September 28, 1988. In the Opinion accompanying the emergency rule the Board suggested that a permanent rulemaking be initiated by November 1, 1988.

On September 22, 1988, the Board opened this docket to consider such a permanent rule. On that same date, the Board proposed a rule for First Notice which 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.

After issuing a Second Notice Opinion and Order on February 2, 1989, the Board received motions for reconsideration from the Illinois Environmental Protection Agency (Agency) and the Department of Agriculture. By its Order of February 9, 1989, the Board stated that it would accept further comments until February 21, 1989. On February 23, 1989, the Board issued another Opinion and Order which vacated the February 2, 1989 decision and proposed a rule for Second Notice. Also, the February 23, 1989 decision found, pursuant to Section 27(a) of the Environmental Protection Act (Act) that an Economic Impact Study was unnecessary for this rulemaking.

The Board gratefully acknowledges the assistance of John Vandlik, Kathleen Crowley, Morton Dorothy and Phillip Van Ness in the preparation of this regulation.

On April 10, 1989, the Board received the Joint Committee on Administrative Rules' (JCAR) Certification of No Objection to Proposed Rulemaking. The version of the rule adopted today has been altered slightly to conform to agreements made with JCAR. The rule, though, is substantively unchanged from the version proposed for Second Notice on February 23, 1989, although it will become effective June 1, 1989, instead of May 1 as originally proposed.

The 31 Exhibits admitted in R88-12 are incorporated into this record and will keep their original exhibit numbers. The transcript of the Special Board Meeting (Meeting of April 15, 1988 is exhibit 32. 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 _____.

The First and Second Notice Opinions describe many comments and exhibits received during the rulemaking process that are not repeated in this Opinion. This Opinion does, however, go into detail on the threat posed by tire associated mosquitoes, the economic impact of the rule and a discussion of the Final Rule.

LEGAL BASIS FOR REGULATORY ACTION

Through Section 27 and 22 of the Act, the Board may adopt substantive regulations to promote the purposes of Title V of the Act which is entitled "Land Pollution and Refuse Disposal." Section 20(b) of the Act which sets forth the purposes of Title V states:

It is the purpose of this Title to prevent pollution or misuse of land, to promote the conservation of natural resources and minimize environmental damage by reducing the difficulty of disposal of wastes and encouraging and effecting the re-cycling and re-use of waste materials, and upgrading waste collection, treatment, storage, and disposal practices...

Ill. Rev. Stat. 1985, ch.
111 $\frac{1}{2}$ par. 1020(b).

Further, Section 2 of the Act states:

- a) The General Assembly finds
 - 1) that environmental damage seriously endangers the public health and welfare...

Ill. Rev. Stat. 1985, ch.
111¹/₂, par. 1002(a)(1)

Reflecting this legislative finding, the Supreme Court has held that impairing the Board's ability to "protect health, welfare, property, and the quality of life" is inconsistent with the objectives of the Act because of "the Act's emphasis on public health." Monsanto Company v. Pollution Control Board, 67 Ill. 2d 276, 367 N.E.2d 684, 10 Ill. Dec. 231, 235 (1977).

Similarly, courts have held that actions of the Board may be classified as an exercise of the State's police power which can require individuals to expend funds in "the interests of public health and welfare." A.E. Staley Manufacturing Company v. Environmental Protection Agency, 8 Ill. App.3d. 1018, 290 N.E.2d 892 (1972); Cobin v. Pollution Control Board, 16 Ill. App. 3d. 958, 307 N.E.2d 191, 199 (1974).

In the instant situation, the Board is adopting rules that regulate scrap tires for the benefit of public health. It is the Board's position that the promulgation of these rules is well within the authority granted to the Board under the Act.

The storage, transport and disposal of scrap tires is a solid waste management problem. Such matters are commonly dealt with by the Board. The Board has traditionally promulgated rules to control pests and vectors associated with solid waste. The best example is regulations to control rodents and birds associated with landfills. The Board also regulates hospital wastes and the bacterial levels of raw and finished water. Other Board regulations concern the safe transportation and storage of a variety of materials. The adoption of regulations to control mosquitoes in scrap tires is consistent with the Board's other regulatory functions.

SCIENTIFIC PANEL

Four research scientists specializing in mosquito biology and control testified on this matter. This group is collectively referred to as the Scientific Panel.

Dr. George Craig, Jr. is an entomologist and Director of the Vector Biology Laboratory at the University of Notre Dame, and a Fellow of the National Academy of Sciences. He has served on expert committees for numerous entities including the World Health Organization and Pan American Health Organization and has authored over 400 scientific papers on Aedes mosquitoes.

Dr. Robert Metcalf is a Professor Emeritus at the University of Illinois and Principal Scientist of the Illinois Natural History Survey (INHS) within the Department of Energy and Natural Resources (DENR). He is a member of the National Academy of Sciences, has served on the Expert Committee on Insecticides of the World Health Organization; Pesticide Science Advisory Panel

of U.S. Environmental Protection Agency; and a variety of committees of the National Academy including that on Urban Pest Management. He is the author of more than 400 scholarly publications.

Dr. Robert Novak, is currently with the INHS and Macon Mosquito Abatement District. Previous appointments were with the University of Puerto Rico; and the Centers for Disease Control in San Juan and Atlanta. His career has been focused on mosquito research including identification, ecology, behavior and control. He has been the lead person for the INHS on the Tiger Mosquito since its discovery in Illinois last year.

Dr. Chester D. Moore is a research entomologist at the Arbovirus Ecology Branch, Division of Vector-Borne Viral Diseases, Center for Infectious Diseases, Centers for Disease Control (CDC), Fort Collins, CO. He was an army entomologist at the Walter Reed Army Institute of Research and served with the CDC in Puerto Rico. He has authored over 30 scientific papers and is an advisor to many organizations including the World Health Organization.

MOSQUITOES IN TIRES

Dr. Novak listed fourteen species of mosquitoes in Illinois which are found in tires and similar containers. Of these, eight are known to spread human or animal diseases (RII at 22 and Exh. 37). Of these, Culex pipiens (Northern House Mosquito) and Aedes triseriatus (Tree Hole Mosquito) are known to spread serious human diseases in Illinois.

The Tree Hole Mosquito transmits Lacrosse Encephalitis (LAC), while the House Mosquito transmits St. Louis Encephalitis (SLE).

Aedes albopictus (Asian Tiger Mosquito) entered the United States in 1986 from Asia where it spreads several human viral diseases. It has not yet been documented as having transmitted human disease in the U.S. although it spreads dog heartworm. Under laboratory conditions it has been shown to transmit a number of human viral diseases common in the U.S.

The technical witnesses generally agreed that these three species are of primary concern regarding public health (exhibits 14, 16, 19, 20, 21, 34, 37 and 39).

SLE is a viral disease which causes inflammation of the human central nervous system. Disease symptoms appear in infected persons of all ages, but are most severe in the elderly. Symptoms include headache, fever, stiff neck, drowsiness, lethargy, nausea and vomiting, mental confusion, and sometimes seizures and death. Mortality rates range as high as 30 percent of diagnosed cases. During a 1975 epidemic in Ohio, 29 of 416 infected people died. The average age of those who died was 70

years. (Exh. 7). SLE is well established in Illinois. During the 1975 SLE epidemic there were 47 fatalities in Illinois along with 578 confirmed or probable cases and over 700 suspect cases (Exh. 39).

LAC has similar symptoms to SLE. Children are most at risk of contracting this disease. The mean age of 618 infected persons in Ohio between 1963 and 1985 was slightly less than nine years. Five of the cases were fatal. (Exh. 7). LAC is well established in Illinois, with over 90 confirmed cases between 1976 and 1987 (Exh. 39).

The Illinois Department of Public Health (IDPH) pointed out that, "Case investigations by the State Health Departments of Minnesota and Ohio have determined that discarded tires were present at 50-80% of residences where cases of LaCrosse encephalitis occurred....Mosquito control workers have found that tire casings are one of the most common artificial containers near private residences. Consequently, eliminating tire casings from private residences will help minimize risk of disease to citizens." He also said that one reason attempts to eliminate the Yellow Fever Mosquito failed in the 1960's was that "clean areas were reinfested by eggs transported in tire casings."

The Tiger Mosquito is of particular concern in Illinois because in the laboratory it transmits SLE and LAC. According to Dr. Moore, laboratory studies indicate the Tiger Mosquito is as good a vector of LAC as its normal vector, the Tree Hole Mosquito (RII at 15).

Early in 1986, the Tiger Mosquito was discovered in Harris County, Texas and quickly spread to other states including Illinois. The Centers for Disease Control (CDC), Division of Vector-Borne Viral Diseases, after investigating the infestation made the following observations:

The CDC views the introduction of Ae. albopictus as a potentially serious public health problem, both for the United States and for other countries in the hemisphere; we are devoting a major portion of our time and effort to the matter.

* * *

We are strongly encouraging state and local agencies that find this species within their jurisdictions to initiate control measures against it. Eggs and larvae [mosquito young which live in water] seem to move from one area to another in shipments of used tire casings for the retreading and recycling industry. Thus, a major component in confining infestations involves the

cooperation, and possible regulation, of these businesses. It is a large business, and tires are routinely shipped over long distances. Tire retreaders and recyclers need to be made aware of the seriousness of the problem and ensure that they are not helping to spread the mosquito.

(Exh. 1.)

In 1987, CDC said the following regarding the potential relationship between LAC and the Tiger Mosquito:

La Crosse encephalitis is the second most common form of mosquito-borne encephalitis in the U.S. La Crosse (LAC) virus, a member of the California serogroup of viruses, is distributed throughout the eastern U.S. and is especially common in hardwood forest areas of the upper Mississippi and Ohio River valleys. It is transmitted primarily in a transovarial infection cycle in Ae. triseriatus, with seasonal amplification in small mammals. Humans typically encounter the virus in heavily wooded suburban or rural environments. Probably because of a stable vector-virus cycle, there is a rather constant annual number of about 75 human cases (range of 30 to [1]60 cases) reported to CDC.

Laboratory studies have shown that Ae. albopictus is an efficient vector of LAC virus. It also transovarially transmits the virus. If Ae. albopictus becomes involved in the LAC virus cycle in the eastern U.S., the epidemiology of the disease might be dramatically altered. First, such a new (and presumably less stable) vector-virus relationship could result in greater year-to-year fluctuation in numbers of cases. Second, Ae. albopictus is better adapted than Ae. triseriatus to urban environments. An urban LAC virus cycle would lead to increased man-mosquito contact and, therefore, increased virus transmission. Third, involvement of Ae. albopictus could result in increased LAC virus activity in the southeastern U.S. (Exh. 5).

Unlike many Illinois mosquitos that are active in the evening, the Tiger Mosquito is a day biter. It is active when people are about their work and play. It has a reputation as a particularly noxious pest because of its bite (Exh. 3). It is

well adapted to human habits and breeds in tires, bottles, jars, plugged gutters, and most other small water-filled containers. This close association with man makes it potentially more dangerous than many other species.

The Tiger Mosquito was found in Illinois in small areas of Jefferson and St. Clair counties in 1986 and in one location in Cook County in 1987. (Exh. 6). The infestations were in piles of tires. By Fall of 1988 the Tiger Mosquito had spread to Madison County, but was presumed to be eliminated from Jefferson (RII at 9). Scrap tires also provide excellent breeding areas for the Northern House Mosquito and the Tree Hole Mosquito as well as Aedes aegypti (Yellow Fever Mosquito). (Exh. 7).

Dr. Novak commented at hearing on the large numbers of tires found in some neighborhoods. The INHS scientists inspected premises in the mixed residential-commercial area around the site of the Chicago Tiger Mosquito infestations. Thirty-five of 97 inspected premises had containers with mosquito larvae. The larvae were not necessarily those of the Tiger Mosquito. Twenty-two of the 97 premises had one or more tire piles. Of 40 tire piles inspected, eight contained over 50 tires, 12 contained between 11 and 50 tires, eight contained 6-10 tires and 12 contained 1-5 tires (RII at 30 and Exh. 37).

Dr. Moore pointed out that the Tiger Mosquito combines the worst characteristics of the mosquitoes that transmit SLE and LAC in Illinois: "it has a strong attraction to humans for its blood meals, and is quite at home in either an urban or suburban setting." He also pointed out that "removal of tires and other major producer habitats may reduce populations of the mosquito to a level where disease agents cannot effectively be transmitted." (Exh. 19A). Regarding the proposed rule, Dr. Moore stated that:

If you have full and total compliance, I think that you can expect essentially, obviously, a total shutdown of movement of the mosquito at least by human activity within the State.

Any proportional lack of compliance would give a proportionately less optimistic picture of what's going to happen. (RI. 90)

In response to a direct question, Dr. Moore emphatically stated, "There is no evidence that the Asian Tiger Mosquito, any other mosquito, or any other blood-sucking insect, can transmit the AIDS virus." (RI. 64).

Dr. Craig said, "Those who know anything about the public health menace of this mosquito in Asia are deeply concerned about its introduction to the Americas." He pointed out that the insect by 1987 had spread to 77 counties in 18 states, has eggs that tolerate freezing and is a major biting pest. He listed 20

organizations dealing with public health and entomology which have expressed concern over the threat posed by the Tiger Mosquito (Exh. 14A). On the importance of acting quickly, Dr. Craig said, "You have got your last chance to get them out of Chicago this spring and summer. You won't have a chance after this fall." (RI. 217).

Dr. Novak and the INHS have studied the Chicago infestation. It has spread from a tire yard to adjacent neighborhoods. In addition, a search of 72 tire accumulations in 32 Illinois counties failed to find a fourth infestation. Drought conditions at the time could have caused an infestation to be missed due to low mosquito production. According to Novak:

This pestiferous daytime biting behavior of this mosquito, coupled with its potential disease-carrying capabilities, could create a severe personnel and economic burden on mosquito abatement districts as well as on public health and veterinary agencies throughout the State. It adds yet another insect-and-disease-control responsibility for these agencies, many of which are unfamiliar with control practices necessary to abate container-inhabiting mosquitoes. (Exh. 16A)

Dr. Metcalf said that many people are seeking his advice on mosquito control programs. He stated:

The history of practical mosquito control is essentially that of the past 50 years. It has been abundantly demonstrated over that time that elimination of breeding sites for larval mosquitoes by drainage, dewatering, grading, filling,, etc. or by ancillary larviciding activities is the most practical method for mosquito abatement. It is obvious that this must be true especially in suburban and urban locations where mosquito breeding sites are generally conspicuous and can readily be mapped and where the mosquitoes are concentrated in a relatively immobile and and innocuous life stage. A tiny pond a hundred square meters in area can contain several million mosquito larvae. Yet after emergence from the pupal stage, the winged biting adults can colonize an area of several square miles. The same can be said of the larvae of Ae. albopictus breeding in a few automobile tires containing rain water. Apart from source reduction by drainage, etc.: emergence larviciding by granular or pelletized products containing very small amounts of insecticide can readily be

accomplished by treating relatively small areas in an entirely safe and unobjectionable way using either the microbial insecticides Bacillus thuringiensis israelensis (Bti) or Bacillus sphaericus (B.s.); or such relatively safe and effective mosquito larvacides as temepyhos, fenthion, methylchlorpyrifos, or even kerosene.(Exh. 15)

He also cautioned against the use of ground fogs (adulticiding) stating that they are inefficient, have toxicity hazards, invade privacy, damage natural insect enemies, and lead to pesticide resistance in mosquitoes. He pointed out that "more than 200 species of mosquitoes have developed resistant strains to the entire armamentarium of insecticides available." (Exh. 15).

The scientific panel agreed that habitat source reduction, particularly by removing tires, is the desirable way to approach control of this insect. Dr. Novak presented data on the positive effectiveness of the granular formulations mentioned by Dr. Metcalf (Exh. 16A). Dr. Turnock stated:

Any adult control (fogging) should be directed towards adult tiger mosquitoes at or near sources of production, usually tire accumulations. A general fogging of a community to control day-biting species such as the tiger mosquito or the tree-hole mosquito is unlikely to be effective. (Exh. 21A)

The presence of the Tiger Mosquito in three counties provides the State with the opportunity to slow or stop its spread. Eradication would be desirable, but is unlikely. Given this insect's ability to spread disease and its annoying bite, it is in the public interest to take steps to control its spread. This is particularly true if the mosquito proves capable of transmitting LAC in the field. The virus is largely in rural and suburban areas. The mosquito is currently in isolated urban areas. To allow the mosquito and the virus to come together due to inaction is ill advised at best.

The Board believes that slowing or halting the spread of the Tiger Mosquito will protect many Illinois communities from both its annoying bite and potential health threats. Any time bought for a community by this action can be used by public officials to determine the true extent of the health threat and to prepare appropriate control efforts.

Control of the Tiger Mosquito requires a three-phased effort. First, the spread to new areas must be stopped. Second, new infestations must be attacked. Third, breeding habitat in infested areas must be reduced. As of June of 1987 CDC recommended the following:

Preventing introduction. The primary role of introduction of Ae. albopictus appears to be through the movement of tires--within states, between states, and between counties. If this movement of infested tires can be halted, the spread of Ae. albopictus can be stopped or greatly reduced. As long as tires are stored and shipped dry, there will be no problem with Ae. albopictus or any other mosquito. Thus, regulations requiring proper storage and shipment should be prepared and enforced. Tire casings coming from an infested area can be treated by heat (dry or steam, 120°F for 30 minutes) or by fumigation (methyl bromide, 2 lb./1,000 cu. ft. for 24 hours). Both methods will kill eggs as long as the tires are dry, but methyl bromide will not kill eggs submerged in water (except at very high dosages); thus, it is imperative that tires be dry before fumigation. Scrap tires, which have little or no commercial value, should be rendered unsuitable for mosquito breeding by shredding and burning, burying, or other environmentally sound means. When scrap tires are simply transported out of the jurisdiction and dumped, an infestation can be spread quickly.

Control of existing infestations. The primary method of control for Ae. albopictus should be source reduction--that is, removal of potential breeding sites. Container habitats, such as tires, tin cans, etc., should be properly disposed of. Breeding sites that cannot be removed should be rendered inaccessible to ovipositing mosquitoes or incapable of holding water (e.g., by storing under cover, installing drain holes, etc.). A strong community awareness and education program is necessary to accomplish thorough source reduction and to maintain community cleanliness. Frequently, public service organizations and clubs can have a major impact on community awareness.

Chemical control (larvicides, adulticides) can be employed as a supplement to a properly designed source reduction effort. However, Ae. albopictus has already been found to be tolerant to malathion, temephos, and bendiocarb. There are technical problems in getting sufficient quantities of larvicides

into containers such as tires in piles, and the cost of treating scattered container habitats in urban areas can be prohibitive. (Exh. 5).

Tim Warren of DENR submitted the following information on scrap tires in Illinois:

The Department of Energy and Natural Resources, Office of Solid Waste, is responsible for minimizing the State's dependence on landfill disposal of solid wastes. Scrap passenger and heavy duty vehicles tires constitute a component of the solid waste stream that is difficult to manage in an environmentally and economically effective manner. This is because of the dispersed nature of tire generation, the special problems whole tires create when landfilled, and the general lack of markets for used tires.

* * *

Using national averages, Illinois generates 11-12 million used tires annually, the majority of which are not landfilled or recycled, but stockpiled in various locations throughout the state. This is roughly equivalent to 1.6 million cubic yards of tires generated each year in the state. Landfill disposal of tires is becoming more difficult and costly, as diminishing landfill capacity allows landfill operators to be selective as to the types and quantities of materials they receive. Burial of whole tires in landfills creates operating and longterm care problems, since whole tires will "float" to the surface in a landfill, and may effect the integrity of landfill cover and capping practices. An informal survey by this Office in 1987 indicated that only a few landfills had a total prohibition on tire disposal at their facilities. Most have invoked a premium tipping fee that is two-to-four times that charged for other solid wastes. (Exh. 26)

The Ohio Environmental Protection Agency sponsored a study of Used Tire Recovery and Disposal in Ohio in 1987 (Exh. 7). That report pointed out that used tires are an ever increasing solid waste disposal problem given that whole tires are considered undesirable by landfills and do not degrade over time. About one used tire is generated per capita per year and they are accumulating at an alarming rate. Abandoned tire piles

are a fire hazard and tire fires are most difficult to combat when tires are piled haphazardly.

The Ohio Study went into great detail on the association of discarded tires and mosquitoes. It pointed out that the Tree Hole Mosquito's population in nature is controlled by available habitat (tree holes which are limited in number). However, tire piles provide artificial habitat allowing populations to build, increasing the chance of humans being bitten. The Tiger Mosquito is quite similar to the Tree Hole Mosquito in this respect, although it is already adapted to man's artificial containers. The Ohio Department of Health (ODH) has documented the direct association of human cases of LAC with Tree Hole Mosquitoes breeding in "indiscriminately dumped or improperly stored scrap tires."

The Tiger Mosquito lays its eggs above the waterline in containers. The eggs hatch when the water level rises and wets the eggs. The eggs can survive more than a year in a dry container. The result is that shipped tires can carry viable eggs even when shipped dry. If tires are never allowed to accumulate water, the mosquito will not lay eggs in them. Likewise, eggs in a tire that is drained and kept dry will not hatch.

Mosquitoes are also transported in water filled tires that contain larvae. During transport, the larvae can continue development and become adults. When this happens, the adults can fly from trucks along the route. Draining tires before shipment kills the larvae and prevents the spread of adults during transport.

ECONOMIC IMPACT DETERMINATION

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 Economic Impact Study (EcIS) should be performed for a rulemaking. Since that change became effective January 1, 1989, Board 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 adopts 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 granular temephos formulation known as Abate® 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). No other companies engaged in pest control testified. A contract for treating 65,000 tires in Chicago during the 1988 season had an estimated cost of \$5,930.70. This includes 14 professional inspections to determine if treatment is needed and two treatments with a granular pesticide if appropriate. 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 pesticide 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. 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 supplement for use with coal. (RII at 256). Tire shreds can compete economically with \$20 per ton coal at a selling price of \$27.30 per ton or less. (RII at 192-197).

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 slitter 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. 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.

Based on the above the Board finds that there is sufficient economic information contained in this record 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.

LOCAL AUTHORITY

The adopted rule does not prevent units of local government from adopting more stringent regulations. Cities, for example may choose to require management of tire accumulations of fewer than 50 tires. IDPH discussed local powers in the Emergency Rule and provided the following statement which was quoted in the R88-12 Opinion at 28 and 29:

With regard to small commercial activities and personal activities which result in tire accumulations, the Department feels that local health department and State's Attorneys' authorities under nuisance statutes are adequate to address any problems that may be found.

* * *

Government officials are given the authority under the Public Nuisances Act (Chap. 100 $\frac{1}{2}$, Sec. 221, Para. 26) to cite individuals who are creating a nuisance that "is offensive or dangerous to the health of individuals or the public." This approach was used in 1986 and 1987 by the Franklin-Williamson Health Department to abate a mosquito nuisance created by improper water management at a carbon-recovery mine. The county health department filed a nuisance complaint with the State's Attorney's, who then fined the operator of the mine \$25 per day until the mosquito nuisance was controlled or eliminated. Ultimately, the owner hired a mosquito control contractor and drained much of the standing water at the mine site. In addition, under Local Health Department statutes (Public Health and Safety, Ill. Rev. Stat. 1985, Ch. 111 $\frac{1}{2}$, para. 20c.01) and the Standards for Local Health Departments, local health departments must perform inspections, investigations, surveillance, and enforcement of the provisions of the Nuisance Program as required by Sec. III. Rule 3.92. There are nuisance statutes that a local health department can use to control the breeding of mosquitoes in tire stockpiles within its jurisdiction. However, local officials must believe that this is a problem that is a high priority. Although local officials can control specific local problems, the massive accumulation of tire casings in Illinois can only be addressed by a statewide program.

* * *

In 1927, statutes permitting the formation of mosquito abatement districts (MADs) were passed. This legislation gives MADs the authority to: 1) levy property taxes to support mosquito control; and 2) abate as nuisances all stagnant pools of water and other breeding places for mosquitoes, flies, or other insects (Chap. 111 1/2, Sec. 7 Para. 80). In the past, MADs have worked with local health departments to remove breeding sites for mosquitoes by citing property owners under nuisance statutes.

It is important to note that there are about 375 Public Mosquito Pest Control Applicators certified by the Illinois Department of Agriculture who are not associated with MADs of IDPH. These individuals represent a reserve of personnel with at least some training in mosquito control, who could help provide information to the public.

ADOPTED PERMANENT RULE

The adopted rule is based on clear guidance from the CDC and testimony of qualified experts. Numerous witnesses testified for the public, agencies and persons who sell or process tires. The Opinions issued in R88-12 and at First and Second Notice in this proceeding discuss much of that testimony. The Final Rule takes that testimony and comment into account, although much of it is not restated herein.

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.

Biological Basis for Rule

The management standards in the rule are based on biological factors. Scrap tire movement is the primary means by which the Tiger Mosquito enters an area and spreads over wider areas. It is also apparent that this mosquito finds tires a particularly desirable breeding habitat and that it builds large populations

in the tire piles. From these tire piles, it can spread into other containers. (RI. 79-81; Exh. 14A, p. 1; Exh. 16A, p. 10). Limiting the mosquito population in a given area can prevent disease outbreaks even if the mosquito is present in that area. According to Dr. Moore of the CDC, tire removal alone might accomplish this goal. (RI. 59).

The Tiger Mosquito reaches adulthood from an egg in 7-14 days, depending upon various conditions. (RI. 15; Exh. 9, p. 1). The mosquitoes can then produce a new generation every 20 days (Exh. 14B-18, p. 42). The eggs can be transported in tires (wet or dry) and can survive freezing to a certain extent. (RI. 15; Exh. 14B-20, 14B-19). A hard winter may cut back the population in areas like Chicago, allowing possible eradication. (RI. 280).

With some exceptions the other Illinois mosquitoes which develop in tires have a similar relationship to tires. The Northern House Mosquito is not restricted to container habitat. Tires, however, bring it into close association with humans. The Tree Hole Mosquito is closely associated with tires in much the same way as the Tiger Mosquito.

Mosquitoes cannot develop in tires that are kept dry or converted so as to not hold water. These management techniques are the most effective. The use of pesticides can prevent or control development, but is not a permanent solution and may have adverse long term consequences such as the development of pesticide resistance in mosquitoes and environmental contamination.

Interstate and Intrastate Transport of Scrap Tires

A regulation requiring that all used tires in transit within, through or into Illinois be shipped dry and covered, and be accompanied by a certificate of inspection would be wholly consistent with federal regulations, would be well within the State's police power and would be a valid regulation of interstate commerce.

The Board's original emergency rule proposal required that all scrap tires shipped through or within Illinois be dry and covered. There is little question that the State of Illinois can legally impose such a requirement. However, it would be far more desirable for the FDA to impose a regulation with national uniformity. As stated by Dr. Craig:

My only regret is that nearly every state is enacting similar (but not identical) rules and the national picture for the used tire industry is chaotic. We must all work toward a more uniform set of rules nationally. (Exh. 14A)

The Board has not included this requirement in the adopted rule. The management standards for newly received tires should address most mosquitoes imported as larvae or pupae.

Definitions. Section 849.101.

Section 849.101 defines terms that are used in the rule. Any term not defined by this Section shall be given the same meaning as it is defined by the Act, unless the context clearly requires otherwise.

A scrap tire is a tire that has been removed from use on a motor vehicle and has been separated from the wheel or rim. A scrap tire is "generated" or becomes a scrap tire at the time and place it is removed from a wheel. Scrap tires are commonly generated by tire dealers, and at gas stations and department stores.

Tires which are "new" or "reprocessed" are exempt from the rule. The proposed rule defines "new" or reprocessed tires, in part, as tires which have not yet been placed on a wheel. Once a "new" or "reprocessed" tire has been placed on a wheel, it is no longer a "new" or "reprocessed" tire. It is assumed that new and reprocessed tires receive better care than scrap tires by being kept indoors or at least relatively clean. This is an important consideration since a certain amount of organic debris must be present in a tire to support mosquito development. 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).

The term "converted tire" is meant to generally refer to tires which have been rendered incapable of holding water. This is most commonly done by physically altering the tire by shredding or some other means. The rule envisions the continuation of tire use in certain recreational and other applications. Such tires should be cut or drilled so that water drains from the tire. A tire is assumed to be "fixed in position" by being hung from a rope or attached to a structure so that it cannot roll. A tire which is free to rotate would need sufficient holes so that it will drain regardless of its position. Holes should be large enough that they will not be readily blocked by leaves or other common debris. In recreational applications, tires could be cleaned out several times a year to prevent blockage. Tires used as bumpers or cushions for boats and other equipment may be cut on the side closest to the ground.

For the purpose of the rule adopted today, the Board is regulating scrap tires as a waste. However, other than the addition of these rules, it is not the Board's intention at this time to either broaden or narrow the current applicability of the Act, or regulations promulgated thereunder, to tires or scrap tires.

Reporting and Recordkeeping Requirements. Section 849.103

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 at 230-233). The Board agrees with the Agency that enforcement requires that at least some record be kept and some information be reported. The adopted requirements are similar to those which were adopted in the Emergency Rule. The reporting requirements are not as stringent as those requested by the Agency. The Board intends to minimize the reporting burden. For this reason, such items as detailed shipping and receiving records are not required in the report. This should greatly reduce the amount of paperwork and prevent the need for frequent updates of reports.

Persons who have accumulated over 50 scrap tires and are subject to the management standards of Sections 849.104 or 105 must report certain information about the accumulations to the Agency by July 1, 1989. This is true regardless of when the tires were accumulated. Persons accumulating scrap tires after July 1, 1989 must report within 45 days of accumulating more than 50 tires.

The intent of Section 849.103(e) is to require regulated persons to maintain enough documentation to reasonably demonstrate compliance. Such information should help minimize confusion and disputes with inspectors. This Section requires that a written copy of the compliance plan for scrap tire management be maintained. This document need not be complex but should at a minimum specify how compliance is to be achieved.

As a practical matter documentation of a pesticide treatment plan could involve invoices showing the dates that professional pesticide applicators treated scrap tires or proof of purchase for pesticides. A person treating scrap tires with a granular pesticide as they are generated each day could specify such treatment in the plan and the presence of the granules in the tires would demonstrate their use without the need for a daily log. Persons periodically treating large accumulations at the same site would be wise to keep records of when the treatments were applied. There is no need to keep records on individual tires as long as tires are segregated into groups, lots or batches according to their management status.

Persons who manage scrap tires by having them periodically removed should maintain copies of invoices or hauling contracts or disposal fees. Management plans involving dry storage should be easily verified by visual inspection.

Unlike in the Emergency Rule, a tire that has been drained needs to be treated or processed within 14 days instead of

seven. This will allow regulated persons more flexibility with their compliance plans and treatment schedules.

Management Standards for Accumulations of Scrap Tires. Section 849.104 and 105.

Sections 849.104 and 849.105 are intended to help control mosquitoes. The provisions of these sections account for the fact that these insects also develop in containers other than tires and that eradication is virtually impossible.

The First Notice proposal set ten tires as the lowest limit that 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 impractical in terms of available resources. The Agency and IDPH both favor a 50 tire cutoff (RII at 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 notes that local authorities remain free to regulate smaller accumulations.

Likewise, consistent with the Emergency Rule, the Board will accept the Agency recommendation (RII at 167) that the rule only apply to accumulations of tires at commercial or business facilities or those generated by a person's commercial or business activities. 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 these operations are not likely to regularly transport or receive tires from other areas. 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. For example, a farmer who receives and accumulates tires from a dealer, must comply with the rules.

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 expressly exempts units of State and local government from the formal rule. It is expected that they, like Chicago, will address non-commercial scrap tire accumulations within their jurisdictions on their own.

The adopted rule applies to all accumulations in excess of 50 tires at commercial facilities. This includes facilities and

sites which receive scrap tires for disposal, storage or processing and those which use scrap tires for such purposes as bumpers and weights. Unlike in the Emergency Rule 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 rule will not take effect until June 1, 1989, so this year's starting date for the implementation of management standards will be two months later than that of following years.

The Rule provides a range of management options. They are intended to take into account widely varying circumstances. A small operation may decide to drain tires initially and then process them within two weeks, thereby avoiding dry storage and treatment. Others may find it appropriate to immediately treat wet or dry tires with an approved pesticide.

The two week minimum timeframes will, under certain conditions allow mosquitoes to fully develop. The scrap tires generally covered by this provision will be newly generated or recently moved to a processor or disposal point. They are likely to be fairly clean and are required to be drained or treated initially. In order for mosquitoes to develop, tires must contain eggs, receive rain, contain organic matter and be subjected to favorable conditions. After the two weeks they are required to be processed or treated as often as necessary to prevent development. The Board expects these controls to be adequate, although not as complete as those of the Emergency Rule.

The intent of the rule is to address aquatic mosquito stages, the larvae and pupae. Adults which come to tire piles from adjacent areas may lay eggs, but it is assumed that tire management will prevent the development of significant numbers of new adult mosquitoes.

The rule does not envision adulticiding being required as part of a management plan. This does not mean that it may not be required by another authority.

The Board agrees with the Scientific Panel that the most effective method of controlling mosquitoes in scrap tires is to destroy or alter tires so they are incapable of holding water. Dry storage is the best method to use prior to destruction. These methods are 100 percent effective and eliminate the need for continual draining or treatment with pesticides. Pesticide treatment is permitted under the rule. Even though it is less desirable than the above-mentioned methods, it will meet the needs of some tire accumulators. As pointed out by the Scientific Panel, Sierra Club (RII at 62), IDPH (RII at 244) and Agency (Motion for Reconsideration); pesticides have a number of drawbacks. These include the development of resistance to the pesticides by mosquitoes, possible contamination of soil and water, and lack of complete control.

Draining can be accomplished by dipping the water out, using a suction device, such as a large shopvac, or physically cutting or shredding the tires. The Board notes that the draining requirement is automatically accomplished if a scrap tire is landfilled or otherwise converted on the day of receipt. As a practical matter, it will be virtually impossible to drain a tire to the point where it contains no moisture. The Board expects that a "drained" tire may contain up to one-fourth inch of water when stood vertically. The Board notes that longitudinally "slit" tires may still hold water if they are not properly stacked. (RI. 185; Exh. 26, p. 2). It is assumed that to be in compliance, slit tires must be stacked so as not to hold water. Slit tires may also prove acceptable for some uses now made of whole tires such as weights and barriers. Salvage yards may choose to meet 849.104(a) by keeping tires mounted prior to disposal or processing.

Operations may substitute a pesticide treatment program for dry storage. Treatment for the prevention of mosquito larval and pupal development may include the use of a number of pesticides. The pesticides must be properly applied and caution should be used to avoid those to which the target mosquitoes have developed a high degree of resistance. Treatment must occur often enough to remain effective. The selected pesticide or toxicant must also be able to penetrate the tire piles and reach the insides of stored scrap tires.

Recent amendments to the Illinois Pesticide Act will make it relatively easy for individuals to treat small tire accumulations. Uncertified persons may now apply selected pesticides to scrap tires. The Interagency Committee on the Use of Pesticides may now specify appropriate pesticides or toxicants for use in scrap tires. Anyone may then use these compounds on scrap tires. To date, temephos and B.t.i. have been approved.

If a granular formulation such as B.t.i. (discussed below) is used, a person with a small tire dealership or processing facility could treat tires each day with minimal inconvenience or expense.

Most pesticides, however, must still be applied by a certified pesticide applicator. IDPH and IDA have information for certification, which may be obtained by employees of a business. Information on becoming a certified pesticide applicator is available from the Illinois Department of Public Health, Division of Environmental Health in Springfield. IDPH also has available a booklet called, "Mosquitoes in Illinois: Recommendations for Prevention and Control". (Exh. 21D).

A variety of pesticides are available for mosquito control. Some are persistent (effective) for over 120 days when applied to tires. Some are in granular form and can be either placed into or onto tires with a gloved hand or small implement or blown into tires with a backpack blower. In Puerto Rico, a granular formulation of temephos gave continuous larval control in used automobile tires for up to 164 days depending upon the amount used. (Exh. 16B-4). A given tire on a tire pile need not be treated again until an infestation is noticed or the pesticide is reaching the end of its effective life, whichever occurs first. It is likely that two treatments with the right agent will suffice at a given pile during a season provided that the pesticide reaches most tires in a pile.

The INHS has experimented with pesticide treatment on stacked tires. (Exh. 16B-3). Researchers discovered that corncob granules effectively penetrate random, shingle and column stacks. Persons faced with a large tire accumulation may find it feasible to have the pile treated in this manner with a long-lived pesticide such as temephos or one of the other approved chemicals. Persons with short-term requirements or in need of frequent applications or extra safety could use a bacterial pesticide such as B.t.i.

Section 849.105 is designed to give persons the ability to devise their own mosquito management plans. This Section recognizes that some persons may have unique situations or circumstances that are not readily or efficiently handled by the general provisions. This Section does not allow for one to utilize this provision in order to be subject to less stringent management requirements. On the contrary, the Department of Public Health must expressly determine that the proposed alternative program is expected to deliver results that are substantially equivalent to results which would be realized if the person complied with Section 849.104. Once IDPH approves a program and it is filed with the Agency, the alternative program is considered accepted and acceptable. If a program does not meet with IDPH approval, it will not be considered complete by the Agency. This Section is specifically available to handle situations such as that of Lakin General Corp. which was discussed in detail at hearing (RI. 198-219).

This section also provides for several persons with tires to file a joint alternate management plan. For example, a city or mosquito abatement district may have an ongoing program of regular inspection with treatment as necessary for tires within its jurisdiction. A tire dealer in such an area would be in compliance if the operation was covered by an approved plan on file with the Agency. Similarly several persons may develop a plan to combine resources to manage their respective accumulations. Each individual person whose accumulation is included in program must be listed, but need not file an individual plan.

CONCLUSION

Based on the information contained in this record, the Board concludes that the management of scrap tires for the control of mosquitoes is technically feasible and economically reasonable.

ORDER

The Board hereby adopts as final the following rule to be published in the Illinois Register and filed with the Secretary of State.

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 and Record Keeping
- 849.104 Management Standards for Accumulations of Scrap Tires
- 849.105 Alternate Management Programs For Accumulations of Scrap Tires
- 849.106 Pesticide Application

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)(Ill. Rev. Stat. 1987, ch.111 1/2 par. 1001 et seq.).

(Source: Emergency rules adopted in R88-12 at 12 Ill. Reg. 8485, effective May 1, 1988, for a maximum of 150 days; emergency expired September 28, 1988; adopted in R88-24 at 13 Ill. Reg. , effective June 1, 1989.)

NOTE: Capitalization denotes statutory language.

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 (Act). (Ill. Rev. State. 1987, ch. 111 1/2 par. 1001 et seq.).

"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 an 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, STATE AGENCY, OR ANY OTHER LEGAL ENTITY, OR THEIR LEGAL REPRESENTATIVE, AGENT OR ASSIGNS. (Section 3.26 of the Act.)

"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 this Part 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 legal name and post office address of the owner of the site or facility and of the operator of the site or facility if the operator is a person other than the owner;
 - 3) The location of the accumulation including street address, municipality or township, county, and if appropriate, descriptions of rural locations;
 - 4) The approximate number of scrap tires at the location;
 - 5) Whether the person ships to or receives scrap tires from other locations and the estimated number of scrap tires shipped or received annually;
 - 6) What use or disposition a person makes or plans to make of the scrap tires; and
 - 7) The manner in which the accumulation is stored prior to such use or disposition.
 - 8) The location at which the written compliance plan and documentation required by Section 849.103(e) are maintained and available for inspection by the Agency.
- 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 and maintain a written compliance plan to achieve compliance with those Sections for managing scrap tires to control larval and pupal mosquitoes. In addition, the person shall maintain records and manage scrap tires in such a manner as to be able to demonstrate that the compliance 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.
- f) The compliance plan and documentation required by subsection (e) shall be available for inspection by the Agency at reasonable times during normal business hours.

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 (i.e., noncommercial), agricultural, horticultural, or livestock raising activities. In addition, this Section does not apply to units of local and State government.
- 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
 Accumulations 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

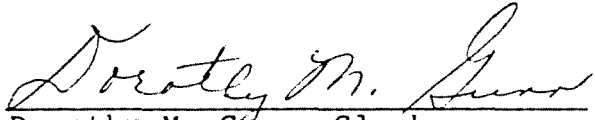
Section 849.106 Pesticide Application

Persons applying pesticides to scrap tires must comply with the requirements of the Illinois Pesticide Act (Ill. Rev. Stat. 1987, ch. 5, par. 801 et seq.). Information is available from:

Illinois Department of Agriculture
Bureau of Plant & Apiary Protection
State Fairgrounds
P.O. Box 19281
Springfield, IL 62794-9281

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 27th day of April, 1989 by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board