

Cited as:  
**Tyre King Recycling Ltd. v. Ontario (Ministry of Environment)**

IN THE MATTER OF Sections 120, 122 and 123 of the Environmental Protection Act, (R.S.O. 1980, c. 141) as amended  
AND IN THE MATTER OF an application for a hearing before the Environmental Appeal Board, dated the 6th day of February, 1987, by Tyre King Tyre Recycling Limited, from an order of the Director, West Central Region, Ministry of the Environment dated the 22nd day of January, 1987, with respect to the storage of used tires on premises described as Lot 1, Concession XIV, in the former Township of Walpole, now in the City of Nanticoke, Ontario

[1989] O.E.A.B. No. 4

**Ontario Environmental Appeal Board**  
**K.M. Henry, Chairman; F.R. Mariotti and J.H. Neil, Members**

Heard at Toronto: December 23, 1987  
Heard at Hamilton: January 14 & 15, March 7, May 5 & 6, 1988  
Decision: April 6, 1989  
(35 pp.)

**Appearances:**

Manfred Rudolph, for the Applicant.  
B. McMeekim, for the Director, West Central Region.  
David Crocker, for the Director, West Central Region.  
Merie Laforme, for the local residents.

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**Background:**

Tyre King Tyre Recycling Limited (Tyre King) the applicant, stores and reclaims used tires at its premises at part of Lot 1, Concession XIV in the former Township of Walpole. The company carries on business on a 4 acre parcel of land owned by Mr. Edward James David Straza and a 10 acre parcel of land leased from Cayuga Quarries and Materials.

Mr. Straza, the owner of Tyre King, is 41 years of age. He attended school until the age of 16 and in about his 19th year (1964/1965), he began working for his brother-in-law, Aaron Nahernay in a business known as Aaron Nahernay Tyres. This business was located on the 4 acre parcel of property which was then owned by Aaron Nahernay.

Aaron Nahernay Tyres picked up used/discarded tires from new tire sales outlets, returned the tires to the company premises, and inspected the tires to ascertain if any of the (tire) casings were suitable for retreading (or recapping). The recappable casings were sent to various retreading companies, such as, Firestone Tires in Moncton. By 1968 to 1969, 350 to 700 tires per day were deposited on the site. Tires which were not suitable for recapping (approximately 80% of the tires picked up and brought to the site) were discarded and piled on an outdoor storage pile.

For personal reasons, Mr. Straza ceased working for Mr. Nahernay in the late 1960's and established his own business at another location.

In early 1977 an electrical problem in the building on the property (owned by Mr. Nahernay) started a fire which destroyed the building. Mr. Straza purchased the property from Aaron Nahernay that year. At that time, the stockpile of discarded tires was comprised of one large pile. After purchasing the property, Mr. Straza discovered that Aaron Nahernay had previously sold the tire pile to Harold Price of the Rubbers Dealers & Brokers Association. This tire pile covered most of the approximately 4 acres (less the house area) that Mr. Straza had purchased. In a subsequent transaction, Mr. Straza purchased the pile of tires from Mr. Price.

During 1978, Mr. Straza's firm was collecting approximately 350 to 700 used tires per day. In May 1978, Mr. Gordon Takaki of the Ministry of the Environment visited the site. According to Mr. Straza's testimony, Mr. Takaki revisited Mr. Straza approximately two months later. Mr. Straza was informed that there was a serious problem at Lowry's Iron & Metal and Mr. Takaki asked Mr. Straza

whether Mr. Straza could store the tires that were located on the Lowry property. To accommodate Mr. Takaki's request Mr. Straza contacted Fred Anderson, the owner of the property of Cayuga Materials and arranged to lease approximately 6 acres of the adjoining land because Mr. Straza's parcel of land was presently full. It was later ascertained that the estimated 6 acre parcel was in fact closer to being 10 acres.

On January 1, 1981, Mr. Straza sold his business. He retained ownership in the piles of discarded tires on the property and the land itself. Mr. Piergard, the new owner, leased the building from him and operated the business from the site for about a year and a half until he ceased doing business. Subsequently, Mr. Mike Moffat operated a similar business from the site on behalf of Mr. Straza.

Mr. Creamer (of the Ministry of the Environment) visited Mr. Straza in January 1986. The Order to Tyre King Tyre Recycling was issued on January 2, 1987 and served on February 2nd 1987.

Evidence:

Bruce Arthur Creamer

Mr. Creamer testified that he is a District Officer with the Ministry of the Environment. Since November 1985, he has been working out of the District Office responsible for the Regional Municipality of Haldimand-Norfolk and the County of Brant. He began his employment with the Ministry of the Environment in 1970 and he is a graduate of the University of Toronto (Civil Engineering - 1959), and a member of the Association of Professional Engineers of Ontario.

Mr. Creamer first became aware of the Tyre King Tyre operations in November 1985 as a result of a letter from the Regional Chairman of the Regional Municipality of Haldimand-Norfolk. This letter, dated October 25, 1985, (Exhibit 7) was addressed to the Honourable James Bradley, Minister of the Environment, from Mr. Keith Richardson, Regional Chairman Haldimand-Norfolk.

Mr. Creamer testified that as a result of the letter, Mr. Gordon Takaki, Environmental Officer, visited the site in November, 1985. Mr. Creamer personally visited the site in January 1986. He described the site as being approximately 10 to 12 acres, and covered for the most part with tires to a considerable height - estimated to be 50 or 60 feet. He was informed that there were approximately 12 million tires on the site, that the site had been in operation for about 21 years and that about 20% of the tires brought onto the property are sent out for recycling and the other 80% are placed onto the piles.

A letter (Exhibit 8) from Mr. B. I. Boyko, P.Eng., Director of West Central Region, to Mr. Ed Straza, Tyre King Tyre Recycling Limited on December 10, 1985 stated:

RE: Tire Stockpiling

This will confirm your telephone conversation on November 28, 1985 with Gord Takaki concerning the stockpiling of tires on your property.

I understand that you have approximately 12 million tires segregated into four stockpiles at this site located at Lot 1, Concession 14, Former Township of Walpole, now the City of Nanticoke.

With the large number of tires stockpiled at one site, questions have been raised by the municipality and this Ministry as to the future status of this facility and the potential impact on the environment should a fire occur in a stockpile.

I understand that you have tried various avenues in attempting to establish a recycling operation at this site but to date have not had any success.

I refer you to Section 1(53) (i. ii, iii) of Regulation 309 of the Environmental Protection Act which states:

"Recyclable material" means waste transferred by a generator and destined for a site:

i) where it will be wholly utilized, in an ongoing agricultural, commercial, manufacturing or industrial process or operation used principally for functions other than waste management and that does not involve combustion or land application of the waste.

ii) where it will be promptly packaged for retail sale, or,

iii) where it will be offered for retail sale to meet a realistic market demand,

but does not include hazardous waste or liquid industrial waste unless the transportation from generator to the site is direct.

Since you cannot confirm that the tires are destined for any one of these sites, the above definition clearly indicates that these tires cannot be considered as "recyclable material". You have in effect created a waste disposal site.

If the tires are to be considered as recyclable material, this office requires a firm commitment, including a schedule of shipping, from you in writing of the ultimate destination of these tires. The commitment will require proposals that are now in effect through a legal contract or agreement with a recognized company in the recycling business.

If you do not have any contract or agreement for disposing of these tires, then you will require an immediate Certificate of Approval for the operation of a waste disposal site. Continued operation without a Certificate is a violation of Section 27 of the Environmental Protection Act. Until this current situation is resolved therefore, you are strongly advised not to accept additional tires at this site.

Please confirm in writing by December 20, 1985 that you have either a continuous outlet for your tires that will substantially deplete your stockpile in the near future, or that you will be seeking early approval under Section 27 of the Act (application forms enclosed). If you have any questions in the meantime, please do not hesitate to contact Mr. Bruce Creamer of this office (416)-521-7657).

Yours truly,

(signed) B.I. Boyko, P. Eng.  
Director  
West Central Region

Subsequently, Mr. Creamer received a letter dated December 14, 1985 from Mr. Straza (Exhibit 9):

RE: Tyre Stockpile

This will confirm our telephone conversation on November 13th, 1985 concerning the stockpile on my property.

Bruce, everyday we are working on deals to recycle the 12 million pile I have. Nobody would like to see this pile removed more than myself. After 21 years of hard work and gathering of these tires I have created an investment into this stockpile. It must be utilized in order for me and my company to recover its investment. I have at present two very interested companies from Vancouver B.C. If I were to believe these companies the recycling would start producing product within the twelve month period. The cost Bruce is very high and I really wish for your sake and mine I could change this but you know the rest of the story on that.

I will reveal to you by letter any concrete information pertaining to recycling. At the present time we are bringing in 2,000 tires a week and selling about 400 a week. This is only 1,600 accumulating on a weekly basis compared to 3,000 per day in 1984. Bruce I must add I have considered to stop procedure on the yard from you letter. This is not the answer. From my 3 to 4 years research every company we have worked with wants to invest money and time into a very active yard. This way they can project their 5 to 6 year recycling operation according to stock, incoming tires can be controlled so they can adjust this to feed the stock. With this privilege they can clean the yard up to the last tyre. I have insurance of Five Million Dollars on Environmental Insurance. Bruce I don't have the policy handy but I believe this information will be satisfactory. Insurance company is Fairview Insurance Brokers Inc., 1035 Queensway East, Unit 6, Mississauga, Ontario L4Y 4C1. The insurance salesmen are Fred De Francesco, A.I.I.C. 273-6250 and Sal Della Camera 273-6250.

The pile has been insured for over 2 years at this environmental coverage plus we put full security on the tyre pile at times of any severe threats or Halloween. I believe Bruce what we are doing now and have done in the past everything possible to protect the public and our own interest, including environmental in the past and will continue to do so in the future. The yard is at present a non-conforming use and is my only source of livelihood for myself and my family and has been for the past 21 years. I believe we can't get much closer than we are now to recycling. Bare with us on this matter and lets all see this thing through together. Bruce if you need any more information for your file please call me.

Thank you

(signed) Ed Straza, PRESIDENT

Mr. Creamer sent another letter to Mr. Straza on January 21, 1987 (Exhibit 10):

"On December 10, 1985 a letter was forwarded to you from this office to which you replied on December 14, 1985. You since contacted the Town of Haldimand Fire Department and I also talked with Mr. R. Slote, Fire Chief, on December 23, 1985. I have since received a copy of the Fire Department's Fire Code Inspection Report of which you would have a copy.

This Report clearly indicates a contravention of the Fire Code and the Report outlines the actions required by you to separate the existing stockpiled tires.

We have also considered the comments in your letter of December 14, 1985, regarding the feasibility of future recycling of these tires. It is our opinion, that while recycling is commendable, that any plans for immediately recycling of these tires is optimistic. Of most immediate concern is the danger of these tires, as presently stockpiled, to the public and the natural environment in the event of a fire.

We consider your operation to be one of operating a waste disposal site. A Certificate of Approval for continuing this operation is required under Section 27 of the Environmental Protection Act. Could you therefor please complete the application and return to me by February 7th, 1986, along with a plan of operation and schedule on how you intend to landfill (bury) the existing stockpile.

I should point out that this Ministry's concern is in the preservation of the natural environment and safety of the public and not in depriving you of your business and livelihood. It would seem reasonable that you can continue your business by accepting and stockpiling a limited volume of tires for recycling and re-use purposes, with burial of the tires that are not immediately transported away for re-use. A schedule including dates for commencement and completion of burial of the existing stockpiles must be attached to your application.

In the meantime it is essential that you commence segregating your existing stockpile as required by Fire Code Reference No. 3.5.2.1. and 3.5.2.2. As well, no additional tires may be accepted at your site after February 7th 1986 until Certificate of Approval with attached conditions is issued to you. I suggest you telephone me upon receipt of this letter and I would be pleased to meet with you to discuss this matter further. I would suggest a date of January 30, 1986, at 10:a.m. at your office.

Yours truly,

(signed) B. A. Creamer

To Mr. Creamer's recollection, the site was never approved as a waste disposal site. Also, Mr. Straza has never submitted an application for Certificate of Approval for his operation.

Mr. Creamer testified that he drafted the Order (Exhibit 2) which is the subject matter of this appeal. The purpose of the Order was to minimize the risk of health to the neighbours and the risk of damage to the natural environment by a fire by doing the following:

- (1) limit the piles of tires to 1,000 square feet in area and not exceeding 10 feet in height.
- (2) provide fencing around the property and a reservoir to hold water for firefighting purposes, and,
- (3) 30 days from the date when the Order becomes enforceable, not to add any further tires to the Presently existing stockpiles (in other words tires that are accepted must be stored according to the regulations of the fire code).

Mr. Creamer indicated that the Ministry would like to see a minimum water reservoir of 100,000 gallons - as was advised by the fire department. The fire department indicated that this should provide approximately one-half hour of water supply under normal firefighting conditions.

In concluding his testimony, Mr. Creamer suggested an alternative solution for the problems of this large stockpile of tires. Rather than the Order which was issued to prevent any problem while the tires were stored on the site, it was his opinion that the sooner the tires are used for recycling the better it could be. However, if recycling was started immediately, it would take several years to utilize all of the stockpile. If the tires were shredded (the cost for this could be at least one or two million dollars) it would reduce the amount of storage space required.

In cross-examination, Mr. Creamer agreed that if the piles of tires were separated into smaller piles of 1,000 square feet of approximately 10 feet in height, each of the smaller piles would hold about 3,000 tires and to segregate all the approximately 12 million tires on site would require at least an additional 50 acres of land.

If the tires were put into a landfill site, this would be very expensive and a waste of a potential energy resource. Mr. Creamer believes that approximately 8 million tires are discarded in the province annually.

He was well aware that Mr. Straza had been vigorously attempting to find opportunities and venues for recycling the tires and that he had in fact been contacted by some of these firms - including Wastec and Oxford Recycling - that were conducting exploratory negotiations with Mr. Straza to recycle the stockpiles.

Christiaan Harm Beek

Mr. Beek has been a member of the Association of Professional Engineers of Ontario since 1979, and is a member of the Canadian section of the Combustion Institute of America. He is employed by the Ontario Ministry of the Environment in the Southwest and West Central Regions. He supervises and assists approximately 8 review engineers who examine applications forwarded to the Ministry and draft assessments, for Mr. Beek's review. If, in his opinion the proposal is technically sound, he signs the assessments and presents them to his Director for signature.

Mr. Beek testified that the average passenger tire is composed of approximately 65% styrene, butadyne and rubber, 25% carbon black and 10%- 15% process oil with a stabilizer added in the form of sulphur compounds. The average tire weighs between 25 and 30 pounds and the B .T.U. value of the rubber in this average tire would be approximately 13,000 B.T.U.'s per pound. He testified that assuming that the tire weighed 25 pounds, each tire would have approximately 325,000 B.T.U.'s of energy. This would be equal to 1.86 imperial gallons of Number 2 heating oil. Thus, the total heat equivalent of the stockpile of 12 million tires equals approximately 22 million imperial gallons of Number 2 heating oil.

He learned that a tire storage pile in the United States, consisting of some 9 million tires had caught fire. Instead of everything going up in smoke, much of the process oil in the tires leached out and soaked into the ground. As noted, this process oil represents about 10% of the weight of the tire. In the event the applicant's stockpile catches fire, an estimated 3.75 million imperial gallons of oil could



potentially be released onto the ground and infiltrate into the soil.

Mr. Beek thought that should the tire piles catch fire, the combustion would occur under less than ideal conditions. The composition of the gases released would be carbon dioxide, carbon monoxide, water vapor, sulphur dioxide, some oxides of nitrogen and particulates in the form of carbon-black (or soot).

In response to questions from the Board, Mr. Beek indicated that if the stockpiles of tires catch fire, and since there would be less than perfect combustion, probably only 20%-30% of the process oil would actually leach out of the tires and infiltrate into the soil. Further, he testified that the efficiency of combustion would probably be about 35-40% under open-air conditions. Also, the radiant heat generated from one burning pile of tires could be sufficient to ignite the tires in a nearby pile even though they were separated by a 10 foot laneway.

Upon subsequent cross-examination by Mr. Rudolph, Mr. Beek testified that although he was the Supervisor of the Environmental Approval Section of the Ontario Ministry of the Environment for the West Central Region, he was not consulted prior to the drafting of the Order. He was first contacted in early January 1988 (just prior to the hearing which commenced on January 14) concerning this matter. His preparation for the hearing consisted of about a half a day's work in which he reviewed literature and had telephone conversations with two tire manufacturers - Uniroyal (in Kitchener) and Firestone (in Hamilton).

Mr. Gordon Takaki

Mr. Takaki has been employed by the Ministry of the Environment for 14 years and is currently a Provincial Officer in the Haldimand-Norfolk/Brant District Office. Mr. Takaki first visited the site in May 1978. He estimated that there were approximately 2 - 3 million tires on site. Mr. Takaki testified that at the time he urged Mr. Straza to segregate the tires into smaller piles and to install laneways wide enough to allow a fire truck to pass between the piles and thereby gain access to the site. He further recommended that Mr. Straza obtain fire extinguishers and access to a water supply and arrange for access to a then-existing pond located approximately 300 - 400 -feet away on property adjacent to Mr. Straza's property.

In cross-examination, Mr. Takaki testified that he had sent a letter, dated January 20, 1981 (Exhibit 15) to the solicitors Sheppard, Sheppard, Macintosh and Harlow, the solicitors for a prospective purchaser of Mr. Straza's business, indicating that his office had "no objections or comments regarding any environmental concerns with respect to Mr. Straza's business".

Mr. Orval Shortt

Mr. Shortt was appointed the mayor of the City of Nanticoke December 1, 1987 following the illness of the then incumbent mayor (Harry Scott). Mr. Shortt testified that the city of Nanticoke have a purchase agreement for firefighting service for the area (in which Tyre King Tyre Limited is located) with the Town of Haldimand The service is provided by the Hagersville Fire Department.

Although Mr. Shortt has not received any complaints and he was unaware of any complaints to the Mayor's office regarding this stockpile of tires. However, if the tires on the site were to become ignited and burn, the City of Nanticoke is concerned about the potential pollution of the natural environment (air and water) and the availability of water to fight a fire on the site.

Mr. Shortt also testified that he had partaken in two or three meetings with former Mayor Scott and a Mr. Mac Grant regarding the possibility of on-site recycling of the stockpiled tires.

James William Jones

Mr. Jones is a Level 1 Fire Services Advisor employed by the Ministry of the Solicitor General and responsible for the Niagara Region, Hamilton-Wentworth Region, Halton Region, Oxford County and Brant County. His function is to provide advice and assistance to municipal councils and fire departments on all phases of fire protection including prevention.

Mr. Jones testified that he has visited the site about 6 times since 1985. Mr. Jones testified that if the stockpiles of tires were properly separated, if one or two piles caught fire, they could be controlled without the fire spreading to the other piles of tires.

Mr. Jones thinks that if the tire piles caught fire, the fire department would have to use unmanned hose monitors to attempt to control the fire on the site since they could never get proper firefighting equipment to the middle of the piles, and that such a fire would burn for weeks, or conceivably, for months. The smoke and intense heat from even one of the burning piles would cause immediate evacuation of persons from the property and probably the evacuation of persons from the neighbouring properties. The radius of evacuation area would depend upon the wind conditions and climatic conditions.

In Mr. Jones' opinion the site was not susceptible to spontaneous combustion but he was concerned that vandalism or mischief could result in a fire.

Mr. Jones testified that a 100,000 reservoir would only provide enough water for 15 to 20 minutes of firefighting with deluge sets or much longer period of time if the 38 millimeter or 1.5 inch hand lines were used.

Mr. Jones testified that one of his duties is to interpret the Fire Code and to give advice to municipal fire departments who have responsibility for administering the Fire Code. However, he is not involved in the development of the Code. Mr. Jones testified that the National Fire Prevention Association (NFPA) - of which he is not a member - does not provide consulting or technical advice to the persons who draft the Fire Code in this province. Yet, an examination of the Ontario Fire Code indicates that in several areas it looks to the NFPA for certain provisions in its Fire Code. Although the Code refers to indoor tire storage, it does not specifically refer to any outdoor tire storage.

Mr. Jones agreed that the major environmental risk resulting from a tire fire would be the production of a dense, high-particulate type of smoke.

Under cross-examination, Mr. Jones agreed that if all the 12,000,000 tires were stacked into 1,000 square foot piles with 10 foot laneways between the piles, they could cover approximately 85 acres of land with between 2,000 and ,2,500 piles of tires. Should a fire start within one of the piles in the middle, he would not want to send any firefighters in to fight the fire in that maze due to his concern for the safety of the firefighters.

Further, he testified that while the Fire Code was first filed in November 1981, and retrofit legislation was introduced April 29, 1983, the retrofit legislation related only to buildings of high occupancy and special occupancy and human safety. He agreed that the provisions of section 3.2 of the Code do not apply to this site because the section refers to indoor tire Storage. In response to questions by the Board, Mr. Jones re-iterated that if there was a fire in the middle of that hypothetical 85 acres containing 2,000 plus piles of tires, he would not send in a crew of volunteer firefighters.

Ronald Ross Sloate

Mr. Sloate is the Fire Chief for the Town of Hagersville. He was appointed to that position on January 1, 1976 and he has served on the fire department for some 30 years. The Hagersville department is volunteer fire department.

Mr. Sloate testified that it would take approximately 8 minutes for his department to get to the Tyre King site. When there was a fire on the site in 1977 (the property was then owned by Aaron Nahernay), it took about 8 minutes to arrive on the site. It took a great deal of hard work and many man hours to extinguish a burning pile of tires. On that occasion, the fire started about 5:20 am in the recycling building. By the time the fire department arrived, the building was completely engulfed in flames. The firemen manually dug a 10 foot path through the burning tires around the building and after some hours managed to extinguish the fire.

He testified that they could probably contain any fire to one pile and that a reservoir of 100,000 gallons would certainly assist to extinguish a fire.

Between 1977 and 1985, Chief Sloate didn't feel the need to issue any orders under the Fire Code, or make any recommendations under the Fire Marshal's Act, in relation to this property.

Richard Matheson Warner

Mr. Warner is Supervisor, Market Development and Promotion Unit, in the Waste Reduction Section (of the Waste Management Section of the Ministry of the Environment). During 1983-1986, he was a Senior Project Manager for Special Projects and his department initiated an inventory study of scrap tires. His present duties include the examination of the economic considerations of tire recycling and the market for used tires in Ontario.

Based on a consultant's report that was completed about a year ago, Mr. Warner testified that there are approximately 10.2 million tires disposed of annually in Ontario. This figure includes used passenger tires and tires generated from commercial and industrial use and trucks and trailers, etc. Approximately 3.2 million are annually recycled or reused in some fashion. About 700,000 tires are annually stockpiled and the balance (estimated 6.3 million) are probably deposited in a landfill site.

Approximately 2.8 million of the 3.2 million recycled tires, probably go to a retreading or remoulding facility. The remainder are utilized by firms such as blasting-mat manufacturers. The principal firm manufacturing blasting-mats is LOF in Sturgeon Falls who use between 90,000 and 100,000 tires per year: Three additional Ontario firms with a potential demand for tires for recycling are Technitread in Brantford, Retico Rubber in Ayr, and RRO (Resource Recovery Ontario) in Orangeville.

There has been some interest over the last four or five years in utilizing tires as a fuel. Firms such as St. Mary's Cement in St. Mary's, Ontario examined the prospect of burning tires. At the time, the firm concluded that the cost associated with either shredding the tires at site or transporting them intact and unshredded from the different sources and shredding them at their site before feeding them into a kiln was not economically viable.

They also considered shredding tires either at landfill sites or at stockpiles before transporting them. This was also uneconomical. The study was done two years ago and perhaps was influenced by the fact that in many cases tires could be disposed in municipal landfill or private landfill sites at relatively nominal costs. However, this is no longer the case.

Another potential user is Canada Cement of Woodstock which, in their facility in the Montreal area, did a test for a tire-derived fuel under a grant from Environment Canada. Tire-derived fuel was reasonably competitive with the other types of fuels. The company thought that there was not sufficient stockpiles of tires in the Montreal area that would be available as a source of fuel.

Mr. Warner testified that tire-derived fuel could be cost competitive with the secondary types of fuels, for example, petroleum coke, Bunker-C oil, etc. However, it is not as competitive on a price-per-unit-of-heating value as natural gas at current gas prices. He believes that there is a potential for utilizing tires for generating energy since a ton of tires is estimated to have the potential to generate about 15,000 B.T.U's. High quality coal contains about 12,000 B.T.U's. per ton. The use of tires as fuel for cement kilns potentially poses very small environmental problem.

Tires could also be used (either whole or shredded) in energy recovery facilities such as modular type of incinerator. To this end, a firm known as Trecan - which has the rights to the Consumat modular incineration process - has been in touch with Mr. Warner about the tires at Tyre King. The firm is considering establishing an energy-from-waste facility on this site.

Another type of energy recovery process is referred to as Pyrolysis (in essence, incineration in the absence of oxygen or air) where the by-products would be a fine ash or a carbon. Three or four firms have contacted Mr. Warner's department enquiring about the sources of supply for these types of units. Mr. Warner testified that it appears that tire recyclers utilizing tires for retreading would prefer to use manufacturers' rejected tires rather than tires that have been stockpiled, since the latter have probably suffered some deterioration of the rubber which might present problems in processing, or in the quality of the rubber crumb that would be derived from the processing.

Mr. Warner doesn't foresee tire recycling as a source of supply for the generation of energy for at least two years. He testified that it is much more economical to transport shredded tires than whole tires.

Under cross-examination, Mr. Warner testified that he felt it would cost about \$60 per ton to shred the tires. Thus the total cost of shredding the 12 million tires on site would be approximately \$11 million.

In response to questions by the Board, Mr Warner stated that the steel belts in the tires present -a recycling problem because a series of steps is required in order to separate the steel from the rubber. Retico utilizes what they call a cryogenic process to separate the rubber from the fabric and steel. Essentially, they shred the tire to roughly one inch or three inches in size. The shredded tire is put through a freezing tunnel utilizing liquid nitrogen and then a second grinder shatters the rubber from the fibre and the steel. The end product is a vulcanized rubber crumb which Retico has been trying to market to the traditional users in Ontario. Due to the low market demand for this product, Retico has been developing new products such as stable mats for horse and cattle farms and for breeding stations. The company is also attempting to develop a rubber underlay for artificial turf.

RRO in Orangeville is utilizing an ambient grinding process that separates the steel and the fabric from the rubber. They are considering a different range of products as well as utilizing the rubber for tire-derived fuel.

Mr. Warner testified that there had been some involvement for four or five years between the Ministry of the Environment and the Ministry of Transportation utilizing rubber crumb in an asphalt mix for highways. Presently, the Ministry of Transportation doesn't find sufficient economic benefit from adding rubber to their asphalt mix. There appears to be a problem utilizing the cryogenic granules since they are so smooth and therefore difficult to mix with the asphalt. The ambient granules are much rougher and can be more easily incorporated.

He testified that the Ministry could entertain a proposal to install a shredder on the Tyre King site that would be evaluated as a material recovery project.

Mr. Warner indicated that it was his understanding that the other major stockpile of used tires is located in the Mount Hope area of Ontario. There are approximately 4 million tires at that site.

There are a number of other sites containing between 4,000 to 12,000 tires. These figures are derived from a 1986 survey. He also testified that he has received phone calls from tire recyclers who asked what they can do with unusable or scrap tires since they can't take them to a landfill site.

Upon cross-examination by Mr. Rudolph, Mr. Warner testified that he replaced Mr. Chapman who had left the branch in July 1987. He was aware that Mr. Chapman had been conducting discussions with Mr. Straza about attempting to establish a plan for recycling. Mr. Warner had never contacted Mr. Straza to continue those conversations, or to advise Mr. Straza that Mr. Chapman was no longer with the Branch. He was not aware if anyone else in the Ministry had advised Mr. Straza or his solicitors of Mr. Chapman's departure. Mr. Warner felt that under the circumstances of the Order being issued, etc., it would not be right for him (Mr. Warner) to continue to work on promoting recycling. He understood that Mr. Straza and Mr. Chapman were in some agreement as to what the department would be doing as far as establishing a facility (for recycling).

Mr. Warner testified that both Halton Region and Hamilton will not accept tires in their landfill sites. He understands that Stepley Quarries in Dundas, and Walker Brothers Quarries in St. Catharines will still accept some tires. As of January 1, 1988, they are charging about \$48 per ton tipping fee for used tires.

Mr. Warner informed the Board that a portable tire shredder would cost a minimum of \$180,000 plus the cost of the vehicle. Shredding cost would be in the area of \$60 per ton. The value of shredded tires ready for use as tire-derived fuel would be about \$25 per ton.

According to a study that was undertaken in 1985 and completed in 1986, only about 2% of all the tires that were reused or recycled in the province were in fact passenger tires.

Joe Mahe

Mr. Mahe is a 21 year resident of Lot 3, Concession XIV in Hagersville. His home is located about 800 to 1,000 feet east of the property. He expressed concern about damage to his property and the surrounding areas should a fire start at the site. He recalls that the smoke from the 1977 fire was much worse than the flames.

Kathleen Ann Easton

Mrs. Easton has resided for 14 years at RR #4, Hagersville which is on part of Lot 1, Concession XIV, former Township of Walpole. Her house is about 300 feet from the stockpile of tires. She was concerned about financial protection for any losses or destruction resulting from a fire; also, protection against rodents if the tire pile was disturbed. Further, they are concerned about their property value depreciating because of the stockpile of tires.

Clive Richard Attwater



Mr. Attwater is a waste management systems analyst at the Proctor & Redfern Group. He has been with the firm for only 6 months. The firm has been retained by Mr. Straza. In the week prior to attending at the hearing, he had begun some research on behalf of Mr. Straza regarding the economics of tire recycling

He testified that Proctor and Redfern began investigating whether financial assistance might be available from federal or provincial sources to assist in a project to recycle the tires.

William Kelly Ryan

Mr. Ryan testified he is an employee of Pest Management Services, St. Catharines and that he has visited the Tyre King site. His investigation indicated that there were some rat burrows located in the ruins of an old barn. He estimated the population between 5 and 20 rats. Further inspection of the property revealed no other rat burrows. He did find some trails left by mice and a groundhog burrow. In his opinion, the vegetation on the site is not sufficient to support a sizeable rodent population. Because it is a rural site wildlife is present. If the tires were not situated at this site, in his opinion, there would probably be an increased level of wildlife.

Edward James David Straza

Mr. Straza is the owner of Tyre King Tyre Recycling Limited. He also owns the 4 (approximately) acre parcel of land known as part of Lot 1 Concession XIV, in the former Township of Walpole. He presently leases approximately 10 acres of land from Cayuga Quarries and Materials. Because he recently received approval for a zoning change from agricultural to industrial salvage, he intends to purchase this property from Cayuga Quarries and Materials.

As noted, in 1964/65, Mr. Straza began working with his brother-in-law, Aaron Nahernay, who was then operating his business known as Aaron Nahernay Tyres on the subject property. Mr. Straza's primary duty was sorting the used tires when they arrived. He set aside those that could be sold to retread shops and discarded the others to the outside stockpile.

Firestone Tires located in Moncton New Brunswick, requested Mr. Straza to travel to Vancouver, B.C., to assist Firestone by finding a suitable supply of recappable tire casings for the Firestone retread shop in Richmond, B.C. For about 10 to 11 months he searched out and visited sources of used tires, and he inspected and purchased the used tires for Firestone.

Upon Mr. Straza's return to Ontario, Mr. Nahernay placed him in charge of his operation with the responsibility for hiring and firing employees and for inspecting the casings. At that time, the firm was handling approximately 700 tires per day, most of which were coming from Simpson-Sears and Canadian Tire stores.

About 18 months later Mr. Straza decided to venture out on his own. He went to Waterford about 8 miles east of the current property bought some property and a truck and picked-up used tires, graded them and sold the recappable casings to the Firestone retread shop in Moncton, N.B. At that time, he was handling about 100 to 300 tires per day.

In 1975, he went to Simcoe where he opened a retread shop and recapped tires. He purchased the subject property that is, the present site from Aaron Nahernay in 1977. At that time, there was one large stockpile of used tires. Although he considered recycling the tires, he had no definite idea of what to do with them other than knowing that Goodyear Tire & Rubber in Bowmanville had a use for bias ply scrap tires that were used to manufacture conveyer belting and second grade rubber.

When he completed the purchase of the property (house, land, etc.) in 1977 he discovered that Aaron Nahernay had sold the tire pile to Harold Price of the Rubber Dealers and Brokers Association, which at the time, had the contract as the main supplier for the Goodyear Rubber plant in Bowmanville. In 1977, the stockpile of tires on the land covered most of the 4 acres (less the house area) and was estimated to contain between 2 and 3 million tires.

Mr. Straza then arranged to purchase the stockpile of tires from Mr. Price. At the time of purchase he was a little short of land space and also quite interested in doing some recycling of the tires in an effort to reduce the space problems. At the time, Goodyear (Bowmanville) was then using approximately 1 to 1.5 million tires per year and there was a small demand for used tires for use in the manufacturing of blasting mats. A firm in Vancouver, B.C. was also making sandals from used tires.

During 1978 approximately 350 to 700 used tires were brought on to the site each day. These tires were picked up by two trucks which together held about 350 tires. The

sources of supply were located in Kitchener, London, St. Catharines, Hamilton, etc., and the accounts included Simpson-Sears, Firestone, and Canadian Tire stores. His firm paid between 5 cents and 25 cents per tire to the suppliers.

In May 1978, Mr. Gordon Takaki from the Ministry of the Environment visited the site. He was there for approximately half an hour and enquired about the sources of the used tires.

In May or June 1978, Mr. Takaki returned and told Mr. Straza there was a serious problem at Lowry's Iron & Metal and enquired whether Mr. Straza could house the quantity of used tires that were on the Lowry property. Mr. Straza advised Mr. Takaki that he was very tight for space but he advised Mr. Takaki he would contact Fred Anderson who was the owner of Cayuga Materials property. Mr. Straza made arrangements to lease 6 acres of the adjoining land at the back from Cayuga providing Mr. Straza put a drain through his property that would drain about 4 acres of Mr. Anderson's land which was to the west of him. It was later ascertained that the parcel was in fact closer to 10 acres in size.

After the verbal arrangements were made to lease the land, Mr. Straza testified that Mr. Takaki told him that he could start another pile, provided he didn't make it any larger than the first one and kept a 10 foot laneway between the piles. At the time Mr. Takaki also suggested to him that he would send letters to the regional office and to gas stations, etc., in the rural route areas indicating that they could bring used tires to Mr. Straza's site.

Mr. Straza also disputes Mr. Takaki's testimony that Mr. Takaki did not tell Mr. Straza he must segregate his current stockpiles into 1000 square foot piles. Nor was Mr. Straza instructed to restrict the size of any new piles to 1000 square feet in size.

By late 1979, about 3,000 tires per day from London, Kitchener, Toronto, Hamilton, and St. Catharines were deposited on the site. Major suppliers were Canadian Tire, K-Mart, Woolco and Simpson-Sears. There were about 6 employees on the site at the time. About 20% of these used tires were suitable for recapping or selling as used tires. Some tires for recapping were sold to firms on the east coast but a majority of the recappable casings were sent into the United States through a broker - Smith Associates (Mr. Barry Smith). During the latter half of 1980 the quantity of tires coming on site tapered off to about 1,500 per day.

In the late 1970's Mr. Straza made a few contacts with various people in an attempt to find a market for his used tires. He was selling some tires to Harold Price who, acting as Canadian Rubber Dealers & Brokers Association, had the sole rights to supply the Goodyear plant in Bowmanville. At this time the Goodyear plant in Bowmanville was using approximately 3 million scrap tires per year.

In early 1979 Mr. Takaki again visited his site accompanied by another gentleman. They suggested to Mr. Straza that he should consider installing a water hydrant and also obtain fire extinguishers and keep a 20 foot clearance around the large building. As a result of

this request, Mr. Straza had a bulldozer come in and clean up and move the tires away from the building.

In 1980 and 1981, Mr. Straza began to seriously investigate if there were more opportunities for recycling of tires. In late 1980 Mr. Takaki again visited the site. Mr. Takaki indicated that he was doing a report for Mr. Ross Piergard who intended to buy the business.

Effective January 1, 1981, Mr. Straza sold the business to Mr. Piergard - the goodwill, contacts, the sources of the used tires and all the routes. He retained the ownership of the stockpile of discarded tires on the property and the property itself. The new owners leased the building from him.

Having freed up a lot of his time, Mr. Straza ran a small business of selling and exporting a lower grade of used tires to the U.S., and increased his efforts to generate a larger interest in the recycling business.

Mr. Straza planned a big promotion to recycle the tire pile. He wrote a letter to the Toronto Star and requested the paper print his letter in the hope that somebody, whether in Toronto or Vancouver, might have an interest in recycling the tires. The Toronto Star printed the letter in 1981 in their edition of the paper that was circulated across Canada.

As a result, he was contacted by Mr. Mac Grant of Alternate Energies from Vancouver, B.C. Mr. Straza worked closely with Mr. Grant in an attempt to advance his recycling project. However, after two or three months, Mr. Grant indicated that he had trouble obtaining funding. Consequently, a pyrolysis facility was not built on this property. Because he felt the pyrolysis system appeared to have good potential, Mr. Straza testified that he invested \$15,000 into Alternate Energies in Vancouver through the purchase of some of the shares..

After a year, Mr. Straza was getting discouraged because he kept hearing the same story over and over again from Mr. Grant. They had a falling out and Mr. Grant returned to B.C. Mr. Straza

attempted to reestablish contact but he was unsuccessful. Cliff Grant (Mr. Grant's son) called and suggested that Mr. Straza contact a person in Mississauga by the name of Mr. Bob Lawyer. Mr. Lawyer was evidently working on a pyrolysis system under the name of Wastec. Mr. Lawyer informed Mr. Straza that Mr. Mac Grant was not likely to return to Ontario because apparently there was a "\$3,000 fraud deal between these two gentlemen and there was a writ on Mr. Mac Grant".

During this period of the business dealings with Mr. Grant, Mr. Piergard operated the site for approximately a year and a half. After he left, Mr. Straza brought in Mr. Mike Moffat who operated a similar business from the site.

Mr. Straza subsequently contacted Technitread in Brantford and spoke with Michael Di Cenzo (whom he believed was the owner). Mr. Di Cenzo provided him with a letter (Exhibit 31) which described an April 1984 meeting between Mr. Di Cenzo and Mac Grant. At this time, Mr. Grant indicated to Mr. Di Cenzo that the best way to "obtain the scrap tires would be to disrupt his (Mr. Straza's) business to such an extent that it would force Mr. Straza into bankruptcy";

Prior to a trip to Saskatchewan in November 1985, he was able to reach Mac Grant. He indicated to Mr. Grant he would like to sell his shares in Alternate Energies back to Mr. Grant or to someone else.

Upon his return from Regina, he found a phone call message awaiting him from Mr. Bruce Creamer. Subsequently, he telephoned Mr. Creamer. On, or about December 11th, 1985, he received a letter (Exhibit 8) from Mr. Boyko. On January 14, 1986, Mr. Straza wrote to Mr. Creamer (Exhibit 9) and in late January, 1986, Mr. Straza received Mr. Creamer's letter (Exhibit 10).

Mr. Straza indicated that he was upset about Mr. Creamer's letter. He felt that the tires were not simply 'stockpiled', rather they were 'stockpiled there to be recycled.' That was his fullest intention. He felt that to bury them would destroy 21 years of what he had been working at and it wasn't the proper thing to do.

He retained Mr. Ed McCarthy, a lawyer from Hagersville. Mr. McCarthy and Mr Straza held a couple of meetings with Ministry and fire officials.

He did not take any tires onto the site during 1986.

As a source of income during that period he invested about \$80,000 (borrowed from the bank) to establish an antique furniture business. About 3 months later his wife took ill and he closed down the business to allow himself time to look after his children. Subsequently, he arranged a mortgage on the property to pay off the bank loan for the business.

He re-commenced bringing tires back onto the site in late 1987. To gain income he commenced picking up tire rims (with tires still mounted) from automobile wreckers. Mr. Straza conducted a basic inspection of the tires, separated the tire casings from the rims and sold the steel rims as scrap metal to Posners in Hamilton for about \$80-90 per ton. He sold the recappable tire casings to retread shops: Approximately 80% of the tire casings are scrap. They are put into separate piles of about 1,000 square feet and 10 feet high. He is bringing in approximately 700 to 900 used rims per week. At this rate, he has approximately enough space left on the property to allow him to continue this business until mid-1989.

-He had purchased environmental insurance beginning in 1983.

His

environmental damage (Limited Pollution) insurance insures him, at the present time, for \$1 million worth of coverage per incident and \$2 million aggregate limit per year. (Exhibit 32A). A second policy provides \$240,000 fire and extended perils insurance, plus \$1,000,000 'Owner's, Landlord's & Tenant's Liability' coverage (Exhibit 32B).

On March 4, 1988 he retained the firm of Proctor & Redfern Group to:

". . . consider possible alternative technical and business strategies for disposal of the tires . . . ; and, identify funding sources/programs that may be available to assist in developing solutions."

Mr. Straza has spoken to Mr. Attwater at Proctor & Redfern on several occasions since March 2, 1988 concerning efforts to recycle the tires.

Mr. Len Napp of Trican Industries has been looking at the site

for recycling of tires. The discussions are only exploratory. A German-based company which is manufacturing sports turf from recycled tires has also expressed some interest.

Mr. Straza testified that landfilling of tires is impractical since the tires seem to "eventually work themselves back up to the top of the ground if they are buried in large quantities".

Mr. Straza actually constructed a pile of used tires to determine the actual number of tires in a pile of 1,000 feet square and 10 feet high. He determined there were approximately 5,247 tires in such a pile. The tires are stacked in a herringbone fashion or design. Over a given period of time, with rain, snow and their own weight they have a tendency to settle. A pile starting at 10 feet would probably settle down to 5 or 6 feet. Then another 4 feet could be added on top so that over a period of many years, probably 2 or 3 additions of tires could be added on this initial 10 foot high pile.

It would be almost impossible to cut laneways to segregate the large tire piles into piles of only 1,000 square feet. It would only be feasible to completely remove a pile and relocate it. Most tires in the piles are filled with water that remains in the tires throughout the year due to accumulation of snow and rain.

He estimated that it would take about a year and a half at cost of about \$7 million to segregate the large piles into smaller 1000 square foot piles - if in fact it could be done.

With the consent of counsel for the Ministry, Mr. Rudolph introduced a letter dated March 7, 1988 (Exhibit 34) from the National Fire Protection Association which stated:

the National Fire Protection Association does not at this time have a standard for the outside storage of scrap rubber tires."

Also, with the consent of counsel for the Ministry, Mr. Rudolph introduced a letter dated March 7, 1988 (Exhibit 36) from Dr. Napier, Professor of Industrial Hazard Control at the University of Toronto. Dr. Napier is a member of the Standing Committee on Hazardous Materials, Processes and Operations that advises on the updating of the National Fire Code of Canada. Dr. Napier indicated that a stockpile of the size of the applicant's had not been envisaged by the committee.

Mr. Straza indicated that he usually takes preventative steps during Halloween to prevent any pranksters from causing damage at the site. He has hired Holyoke Security from Simcoe and they provide an officer for this service.

His property is by his estimate, not worth anything because of the large piles of tires upon it. He owns the property personally and has a \$140,000 mortgage against that property. He is currently attempting to purchase the land he currently leases from Cayuga Quarries. He expects to purchase this land for \$10,000. He has been bringing

tires onto the property for the past 8 or 9 months past. His gross income is approximately \$2,000 per week.

Prior to the decrease in oil prices, a company called Petrosun had spent approximately 6 months discussing recycling of the tire pile with him.

He feels that in the past 4 or 5 years he probably received about 8 to 12 approaches concerning his tires.

Mr. Straza further testified that putting shredded tires in 1,000 square foot piles, 10 foot high, would require about 50 acres of ground.

He testified he is looking at the prospect of setting up a business to manufacture blasting mats on the property. He feels this would utilize about 1/4 million tires per year and provide him with an income.

## SUMMATION

Argument by Mr Rudolph:

The Order should be revoked since it was inappropriate to segregate the piles of tires as required in paragraphs (a),(b), and (c) of the Order. It was impossible to comply with these parts of the Order because the land required estimated to be approximately 50 to 85 acres - is only available from the one neighbour. Even assuming the neighbour was willing to sell, it would be at an inflated price. Since the land surrounding the property is zoned agriculture, it would also be necessary to have the zoning for the additional property changed to industrial. Mr. Rudolph questions whether it is wiser to spread the pile out now, or to let it -sit in its present locabon and attempt to recycle it as soon as possible. He submits that the cost of segregating would be incredibly expensive. Similarly, ihe cost to separate and shred the tires would be equally expensive and which would also require additional land on which to store the tires. Lastly, he argues that the associated cost would in effect bankrupt Mr. Straza and consequently, while he would have lost everything, the problem of this large pile of tires would still be present.

Mr. Rudolph's second argument is that the Order must be limited to the provisions set out in Section 17 of the Act. Mr. Rudolph submits that Fire Marshall Jones did not contemplate separation when he met with Mr. Creamer. Mr. Rudolph suggests that Mr. Jones thought that the laneways would be cut into the tire piles as the tires were removed from the site on a regular basis. However, Mr. Rudolph argues, that when Mr. Creamer drafted the Order, the full understanding of the issues and implications were not considered. Further, Mr. Rudolph argues, as the evidence shows, no one knows what might be the appropriate standard for a tire waste site. Thus, until such time as sufficient evidence about what fire control measures are necessary or advisable, this part of the Order dealing with segregation should not be confirmed.



Mr. Rudolph's third argument may be called the defense of officially induced error. Mr. Rudolph argues that Mr. Straza relied upon Mr. Takaki who, as a representative of the Ministry, told him what was appropriate for his site. Further, Mr. Straza knew the fire department was aware of the site and he heard nothing from the fire department until 1985. Further, Mr. Takaki and Mr. Slote visited the site and neither gave him any instructions about changes or procedures etc. until 1985. Mr. Takaki clearly indicated to Mr. Straza in 1978 that Mr. Straza was required to segregate the piles. He suggests that Mr. Takaki's testimony was inconsistent because Mr. Takaki couldn't recall whether there were two or three big piles in 1978, or just one large pile. Further, he argues that Mr. Takaki does not recollect the Lowry fire.

Mr. Rudolph submits that there was no reason for Mr. Straza to begin a new storage pile of tires in 1978 unless he had been instructed by Mr. Takaki to start a new pile at that time. Mr. Rudolph submits that Mr. Takaki did not have any environmental concerns about the site in 1978. He referred the Ministry letter written in 1981 (Exhibit 15) which informs the lawyer acting on behalf of the potential purchaser that the Ministry had no environmental concerns about the site.

Finally, the Fire Marshal testified that Section 9 of the Fire Code allows retroactive or retrofit type of regulations in situations where human safety is a substantial issue or factor. Because of the terms

of its retrofit legislation it would be difficult for the Fire Marshal, Attorney General, or Solicitor General to deal with those issues under that procedure. Therefore, the government is now using the Environmental Protection Act. Mr. Rudolph suggests it is incredible that the Ministry would now say that Mr. Takaki did not have the authority to do anything about the storage of tires.

Respecting Paragraphs (d) and (e) of the Order, Mr. Rudolph argues that the Board should allow Mr. Straza to continue to bring 50,000 tires per year onto the site. He should be allowed to store them in 1,000 square foot piles until such time as the fire control measures are firmed up by the Ministry subsequent to the decisions of the National Fire Protection Association. Mr. Rudolph argues that the present Fire Code provisions are ineffective to deal with the problem.

Respecting Paragraph (f) of the Order, Mr. Rudolph does not object to this clause being part of any Order.

Respecting Paragraph (g) and (h), Mr. Rudolph requests the Board to wait until such time as the National Fire Protection Association has completed its review. After the Ministry reviews the decisions and recommendations of the National Fire Prevention Association, the Ministry should then make specific appropriate fire control measures. Because this is not an isolated problem, the Fire Marshall's office and the Ministries should develop a standard approach to the problem and then tailor it with specific requirements for a particular site.

Respecting the last two paragraphs on the Order, he suggests that the

Ministry may issue a control order under Section 13 if the Ministry officials are of the opinion that there are additional environmental concerns at the property. He also points out that the Ministry has not issued a Stop Order. Mr. Rudolph suggests that the Order, as drafted is deficient because an order that affects the property must include an obligation on the part of the owner to ensure that any subsequent owner should be bound by the order.

Mr. Rudolph also suggests that the owner or any subsequent owner retain Proctor and Redfern or any substitute company to form what has been outlined in exhibit 23 that is, to find the best solution to recycle the tires. He argues that there have not been any suitable formal professional attempts at recycling. Because there are restrictions on the landfilling of tires, all the branches of the Ministry should work in concert to try and effect a solution to the problem and see that the problem ceases to exist in the province.

#### Argument by Mr. LaForme

Mr. LaForme, on behalf of the neighbours, recommended that a buffer consisting of a hill or trees on the west side or east side of the site should be constructed. He submits that a fence around the site to hide the tires is inappropriate.

Mr. LaForme was also concerned whether Mr. Straza had enough liability insurance in case of fire to cover the neighbours costs for food, temporary housing etc.

The neighbours would also like some protection if their wells became contaminated through weather, nature or a fire as a result of the applicant's operations.

Finally, he argues that the neighbours would be strongly opposed to any rezoning of the pit property from agricultural usage to industrial usage.

#### Argument by Mr. McMeeken

Mr. McMeeken stated that there were three broad issues in dispute. The first issue is the jurisdiction of the Director to issue the subject Order. The second issue is the defences that may be available to Tyre King. The third issue is the question of interpretation that was raised by Tyre King in its Notice of Appeal.

Mr. McMeeken refers to Mr. Creamer's testimony that the essential issue in the matter was the risk of fire and what steps the applicant should be taking to diminish that risk. He argues that the Director's jurisdiction is due to the potential discharge of

contaminant to the natural environment if there is a fire. In this respect, he refers to Section 17 of the Environmental Protection Act. He argues there are three requirements to an Order under Section 17 of the Act. First, there is some risk of a discharge of something into the natural environment (section 17(2b)(i)). Second, the discharge contains a contaminant as defined in clause 1(1)(c) of the Act. Third, the steps specified in the Order prevent or reduce the risk of discharge of contaminants to the environment.

The third issue is the steps necessary to address the risks. He argues that the order addresses the risks of pollution in three ways. These are: fencing, the provision of water, and the respacing of the piles.

Mr. McMeeken submits that the three requirements may be classified according to two areas of concern. First, the proper way to deal with a hazard. Second, there may be another mechanism to deal with this hazard when the National Fire Protection Association deals with this problem. He submits that the best way to handle the hazard is to get the tires removed from the property. However, he argues that it was not likely to occur in the near future, that is within two years.

He also submits that indications are that the National Fire Prevention Association is intending to publishing a document that deals with outside storage of rubber tires. He argues that the Fire Marshal indicated that to the best of his knowledge the person responsible for administering the Fire Code must establish and use the revisions of the Fire Code 3.5.2.1 and 3.5.2.2 in these circumstances. He did question

the value of the National Fire Protection Association being under the umbrella of the Fire Marshal's Code. Some provisions of the National Fire Protection Association are referred to in the Fire Code.

Mr. McMeeken suggests two possible defences are open in this case: estoppel and the impossibility of compliance with the Order.

As a result of the 1978 conversation between Mr. Takaki and Mr. Straza, Mr. Straza was led to believe he could start an additional pile of tires instead of breaking up the existing piles, and therefore he would be carrying on business within the approval of the Ministry of the Environment.

In his testimony Mr. Takaki clearly denies he had told Mr. Straza he could start another pile. Also, requesting Mr. Straza to accept tires on the site was not leading him to believe that the site was operating within the laws of Ontario.

There also is evidence before the Board of a letter sent by Mr. Takaki to the lawyers involved in the purchase of Mr. Straza's business. Mr. Takaki in his testimony indicated that it was a standard form letter that officials in the Ministry are asked to send out in response to requests for information on the status of a facility throughout the province. Mr. McMeeken feels this does not exempt Mr. Straza from complying with the laws of Ontario six years after the letter was sent. The letter was sent in the context of the site which then had 2,000,000 tires not 12,000,000.

Mr. McMeeken quoted from a 1986 decision of the Ontario Court of Appeal (R. v. Cancoil Thermal Corporation)

"the defence of 'officially induced error' exists where the accused, having adverted to the possibility of illegality, is led to believe, by the erroneous advice of an official, that he is not acting illegally".

"The defence of 'officially induced error', is available as a defence to an alleged violation of the regulatory statute where an accused has reasonably relied upon the erroneous legal opinion or advice of an official who is responsible for the administration or enforcement of the particular law. In order for the accused to successfully raise this defence, he must show that he relied on the erroneous legal opinion of the official and that his reliance was reasonable. The reasonableness will depend upon several factors, including the efforts he made to ascertain the proper law, the complexity or obscurity of the law, the position of the official who gave the advice and the clarity, definitiveness and reasonableness of the advice given".

Mr. McMeeken argues that assuming the Board finds that these alleged conversations took place between Mr. Takaki and Mr. Straza, then the fact that Mr. Takaki told Mr. Straza in 1978 to start a new pile and asked him to take on more tires, does not affect the validity of the Order.

In closing, Mr. McMeeken suggests that a person involved in the storage of scrap tires on this scale would take it upon himself to find out what kind of fire prevention measures should be taken. He felt this was only reasonable. He did not think it is reasonable that a person could rely on a conversation that had taken place 10 years ago.

Respecting the second point made by the defence - that of the financial ability to comply - Mr. McMeeken did not dispute that the measures within the Order - especially the piling and spacing are tough. He submits that Mr. Straza's knowingly engaged in this business and therefore must assume the risk. If he didn't know how long the tires were going to be on his property, he was not exercising very good business judgment.

The net effect is the environmental risks inherent in this undertaking are shifted to the provincial government and he submits that this is wholly unreasonable. Reasonable businessmen would be willing to take on the cost of the problem and to operate this business properly. Mr. Straza has to take steps for the prevention of fire.

The question of impossibility really deals with whether or not it is reasonable to let this risk continue without some kind of steps taken to diminish that risk. In other words, is it a reasonable or unreasonable risk?

The Ministry has had numerous dealings with damage to the natural environment and it is the Ministry's position that people can't act in a manner that poses substantial risks to the natural environment. For the past eight years, Mr. Straza has run the risk of damage to the natural environment. Given the gravity of the harm that could be caused by the risk materializing, the requirements of the Order were not unreasonable. He urges the Board to implement the, spacing and piling requirements and should the Board Consider the spacing and piling provisions unnecessary, at least the Board should not forgo the implementation of the fencing and the water requirements.

Further, the piling provision is not inappropriate. The NFPA is studying the problem of tire storage, it could be 1 1/2 years or 2 years before they make their report and it is speculative to now determine their recommendations.

Mr. Straza should take substantial steps (aside from fencing and the water requirement) to make the site safe and to limit, as much as possible, the number of tires coming on to the site.

Decision:

The problem of disposal of used rubber tires is universal in Ontario. On the evidence presented, there does not appear to be any viable economic use for all of these used tires stored on the applicant's property. According to the evidence, Tyre King is the largest single repository in Ontario of used tires - containing some estimated 12 million tires at this particular location. While this firm represents the largest problem ("what do we do with all of these used tires") it also represents an opportunity to develop an environmentally acceptable solution for a major unresolved solid waste problem at this site and throughout the province.

For this reason, the Board recommends that the Ministry take an active role in providing assistance, perhaps even as a demonstration project to the industry, to achieve a method for recycling used tires. Alternatively, the Ministry may wish to examine ways to resolve the problem, for example the use of the tires as an energy source in cement kilns.

Tyre King represents a major environmental hazard. There is a potential for a very serious disaster. Although the risk of fire is low, if such a fire occurred the probable consequences that is, the discharge of a contaminant to the environment is extremely high. Therefore, the Board finds that there is a risk of a discharge of a contaminant into the natural environment from the understanding known as Tyre King

The site demands two basic requirements:

1. To protect the area from the possible risk of fire in the near term.
2. To implement various steps and procedures to resolve the problem in the longer term.

The Board is of the view that Tyre King (and Mr. Straza as its owner) do not possess either the necessary additional land nor the financial resources to comply with all of the conditions in the Order. Conditions (a), (b) and (c) respecting the segregation of the existing stockpiles, are financially impossible for the applicant and should these conditions be forced upon the applicant and Mr. Straza, both the applicant and Mr. Straza would, in all likelihood, be forced into bankruptcy. This would remove the responsibility for this potential hazard from Tyre King and Mr. Straza placing it entirely upon other shoulders.

In argument, Counsel for the Director indicated to the Board that it was not the intent of the Director in issuing the order to bankrupt and close down the operation.

-The Board is of the view that Mr. Straza has attempted to find opportunities for recycling the tires. Unfortunately, there does not appear to be a viable market for all the used tires.

As noted, there was a dispute in the evidence concerning a 1978 conversation as to whether Mr. Takaki instructed Mr. Straza to segregate his stockpile of used tires into separate piles no larger than 1000 square feet in area. We accept Mr. Straza's testimony that no such instructions were given.

The Board hereby orders that the applicant, or his/her successors or heirs, to comply with the following:

1. After thirty days from the date of this order, a maximum of 900 additional used tires may be accepted on the property each week provided they are stored in 1000 square foot piles not exceeding 10 feet in height, and in accordance with all applicable by-laws of the City of Nanticoke.
2. Effective December 31, 1989 the total quantity of used tires stored on the property may not increase.
3. On or before July 1, 1989, to clear the fire lanes surrounding each of the three major piles to provide clear access for fire vehicles to the satisfaction of the Director, West Central Region, Ministry of the Environment.
4. On or before September 1, 1989, to enclose the area presently occupied by the existing stockpile, and all future areas to be stockpiled, with a wire mesh fence, constructed with no openings greater than 2 inches, and a minimum height above ground



level

of 6 feet. All fence posts are to be securely anchored and spaced no greater than 15 feet apart.

5. On or before August 1, 1989, to submit plans for the installation of fire control measures to the Director, West Central Region, Ministry of the Environment.
6. On or before October 1, 1989, to install fire control measures as approved or amended by the Director, West Central Region, Ministry of the Environment. As a minimum, a reservoir is to be constructed by October 1, 1989 capable of holding 250,000 gallons of water and constructed at a location agreed to by the Director, West Central Region, Ministry of the Environment.
7. To retain a consultant and on or before October 1, 1989, submit a plan to the Director as to how the pile of unprocessed tires will be disposed of. This plan shall include a schedule for:
  - (i) a means to reduce the fire potential in the near term, and
  - (ii) provide a plan for the ultimate disposal of the total pile according to a schedule acceptable to the Director, West Central Region, Ministry of the Environment.
8. To maintain a minimum of \$1,000,000 per incident, environmental pollution liability insurance.

Dated at Toronto, Ontario  
this 6th day of April, 1989.