

R E P O R T O F H E A R I N G S

COJEF LIMITED BURNING SITE

The Clean Environment Commission

August 21, 1989

COJEF LTD BURNING SITE

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COJEF LIMITED
BURNING SITE

BACKGROUND

On April 13, 1989 a proposal to establish a waste burning site in Portage la Prairie was submitted by Cojef Limited to the Environment Department for licencing under the Manitoba Environment Act. Located in a depleted sand pit, in an industrial area on the edge of the City limits, the burning site would be used for burning of trees and wood demolition waste only.

In response to public concern raised when the proposal was advertised, the Honourable J. Glen Cummings requested that the Clean Environment Commission hold a public hearing on the matter and, following the hearing, provide him with a report and recommendations.

Following notification and advertising in appropriate newspapers, a hearing was convened in Portage la Prairie, Manitoba at 7:00 p.m., August 9, 1989. Commissioners in attendance were: Mr. Stan Eagleton, Chairperson; Mr. J. Arnold Barr; Mr. Leonard G. Flett; and Mr. Maurice Blanchard.

COJEF LTD. PROPOSAL

Mr. Brian Bowes, P. Eng. of Cojef Ltd. presented a description of the burning site proposal. Only wood from trees or wood wastes from demolition and construction would be burned at the site. Disposal of other wastes including garbage would not be allowed at the site, and scavenging of wastes would also be prohibited.

Before operation of the burning site begins, the abandoned sand pit would be leveled, and fencing, with a metal gate, would be installed to restrict access. Road access will be from Stevens Avenue, a gravelled truck route. During operation, an employee will be on the site to ensure only wood is delivered to the site, and to supervise burning. Wood will be pushed into

COJEF LTD. (continued)

a pile, and depending on the quantity and frequency of waste delivery, burned when required.

Land use in the surrounding area is mixed (see Figure 1). To the north, south and east the site is bounded by railroad tracks. Further beyond, there is an asphalt plant and agricultural activity. To the east and south there is agricultural activity, including a pregnant mares' urine farm about about 200 meters (m) to the southeast. To the immediate west, across Stevens Ave., there is a vacant borrow pit. Also to the west lies the residential and commercial areas of the City, and the City centre. The closest residence is to the south, on Stevens Ave., about 150 m away.

In Mr. Bowes opinion, potential impacts from the burning site were not a concern. The site is lower than the surrounding area, so there would be no surface water contamination by run-off, and leachate from wood ash would not cause a problem if it entered groundwater. There will be some smoke generated by burning, but Mr. Bowes did not consider this to be a serious problem.

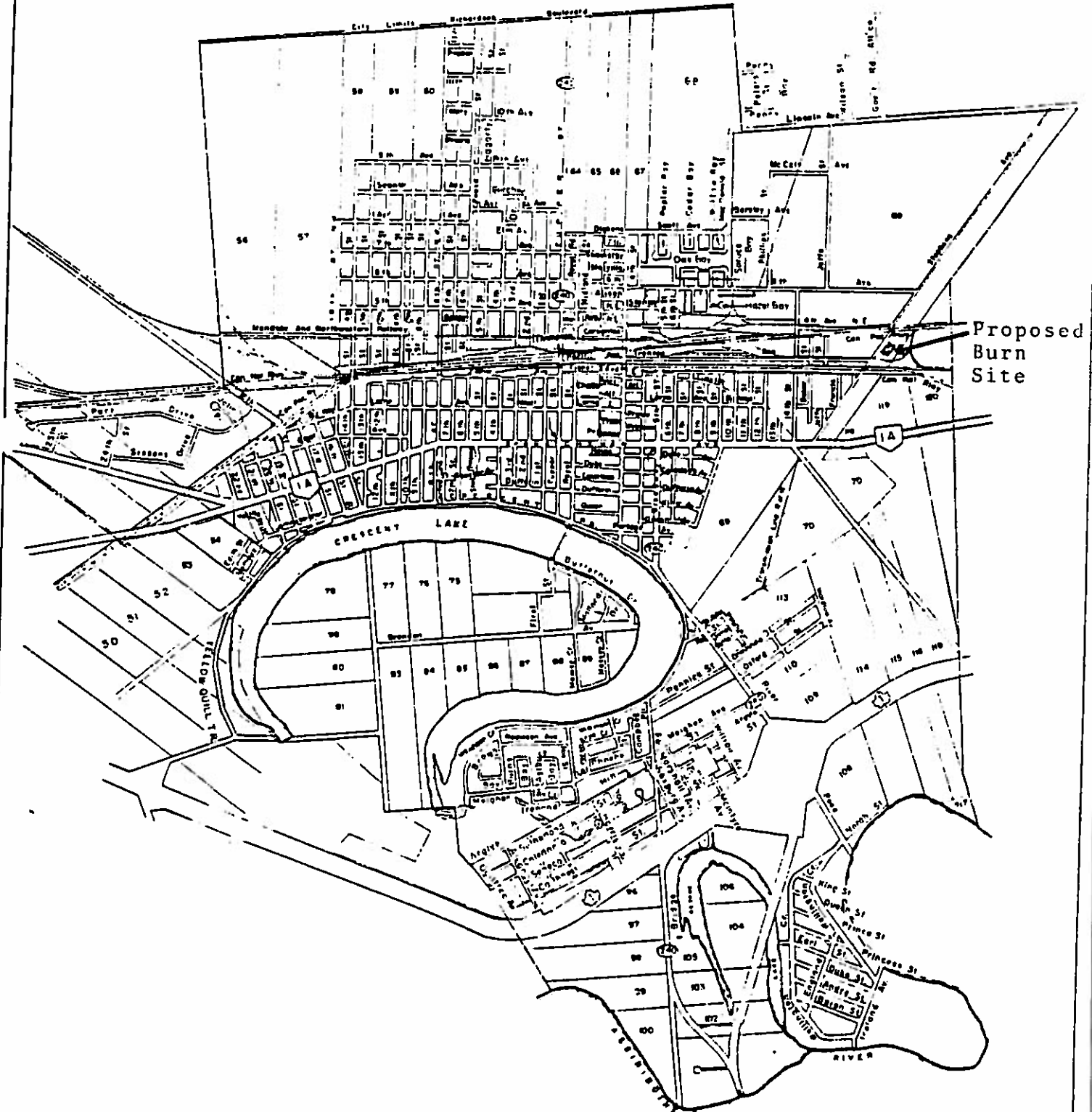
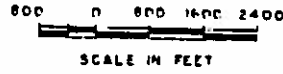
Cojef Inc. was recently awarded a contract, by tender, with the City of Portage la Prairie to operate a waste disposal ground on Highway 227, about 40 km away from the City. Part of this contract included locating and operating a licensed burning site within 2 km of the City. This aspect of the contract was removed because of delays, but Mr. Bowes hopes that when this burning site is licensed they can assume the original conditions of the contract. Mr. Bowes said there is no other licensed burning site in the City of Portage la Prairie.

Access to the proposed burning site will be open to the public to dispose of wood wastes, although it may be necessary to contact the Cojef office to arrange for someone to open the site and accept a load of waste. There would be no access to the site without supervision, with all loads inspected to ensure that only wood, and not other types of waste from

CITY OF PORTAGE LA PRAIRIE

REVISED - JULY 1986

PROVINCE OF MANITOBA
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
DESIGN OFFICE
WINNIPEG, JAN. 1979



Cojef Ltd. (Continued)

demolition, is dumped at the site. Loads found to contain material other than wood will not be accepted at the site.

Mr. Bowes anticipated that major sources of wood delivered to the site might be wood scraps from construction sites, wood from demolition, trees or pieces of trees from annual trimmings and blowdown, or from Dutch Elm Disease control programs. Burning infected elm wood at this site would meet disposal requirements of the Dutch Elm Disease Act.

Cojef may let some of the trees dry out somewhat before burning to attain better combustion, said Mr. Bowes. He was not sure how they would ignite fires, but suspected they would use some type of petroleum fuel.

Members of the public at the hearing were not convinced it would be possible that all non-wood building materials such as asphalt shingles, urea formaldehyde, plastics, etc., could be separated from waste wood, and thus not burned at the site.

In response to questions Mr. Bowes did say that Cojef would not accept treated wood that creates black smoke when burned, but would accept painted wood.

Equipment to put out fires in case smoke gets too thick, or a fire gets out of hand, will not be maintained at the site. Mr. Bowes said the Cojef shops are located one block away, and they could quickly get equipment to the burning site.

Mr. W.P. Keryluk, a Public Health Inspector, with the Department of Environment, Portage la Prairie answered a question deferred by Mr. Bowes about the other burning site. This site, known as the Meseyton burning site, is located south of the city, outside the city limits. It is not licensed, but has been in operation for the last fifteen years, initially as a burn site for Dutch Elm Disease infected wood. Other materials are now burned at this

private site, including wood demolition waste. The owner recently applied for a licence under the Environment Act to continue operation, and the proposal is currently under consideration by the Environment Department.

LOCAL OPPOSITION

Mr. B.R. Sloik is a farmer who has operated a pregnant mares' urine farm for 25 years at a site about 200 m south east of the burning site. He stores straw and hay on his property and is concerned that during the summer these piles could be set on fire by sparks from the burning site. Mr. Sloik is also concerned about the effect of smoke on himself, his workers and his mares, both in terms of general discomfort, and health problems. During the winter he keeps his mares in a barn, and is concerned that even then ventilation fans will draw in smoke generated at the burning site.

Mr. Vic Pidhirny, the closest resident to the burning site, presented the Commission with a petition signed by about 90 local residents. This petition was sent to the Department of Environment on May 15, 1989, and registered opposition to the burning site proposal. The major concerns were safety considerations over smoke obscuring vision at nearby railway crossings, and the nuisance that would be created by the smoke from burning.

The first issue raised in the petition was that the burning site may be in violation with the City of Portage la Prairie By-Law 6057 which states in part that ". . . no material, which might create a nuisance while burning, shall be burned." and, "no person shall burn any material in the open air, so that smoke and ash may blow onto laundry, clothes lines, into open doorways or windows."

Residents near the burning site withdraw groundwater for their domestic supply, and were concerned about possible contamination of that source. Mr. Pidhirny pointed out that groundwater near the old dumpsite is now polluted.

Possible health hazards to residents and/or livestock in the area

Local Opposition (Continued)

from inhalation of the smoke was a concern listed in the petition. The difficulty in policing the type of material being burned was mentioned, and there was concern that if the site becomes established, other types of waste may be burned there.

Debris falling from trucks enroute to the burning site, especially at railroad crossings, could create driving hazards. Smoke could hamper visibility along Stevens Ave., a well used truck route.

Possible decreases in property values was of concern to local residents. It was stated in the petition that there was no job creation provided by opening this site.

The petition questioned why the creation of further air pollution would be allowed, when the city already has problems with air pollution.

Finally, the petition stated there was no need for a second burning site when there is already a burning site at Meseyton's Pit.

The possibility of the City of Portage la Prairie breaking its own by-law by having a contractor operate a burning site within the City limits was questioned by the Commission. Councillor Don W. Gray from the City of Portage la Prairie, who was in attendance at the hearing, thought that this was an old by-law. He said there used to be a lot of small fires in the City, and the by-law was probably passed to control smoke problems from them, but Councillor Gray didn't think the by-law was ever enforced. Councillor Gray was not aware of any discussion by Council about operation of the proposed burning site violating this by-law.

Councillor Harold Brown, of the R.M. of Portage la Prairie presented a submission to the Commission about concerns the municipality has for the proposed burning site. Residents near the east boundary between the R.M. and the City, living a short distance from the burning site, may be affected by

Local Opposition (Continued)

smoke. The residential development of Peony Farm is less than 1.5 km north west of the proposed burning site, and could be affected by smoke. The R.M. shares Mr. Sloik's concern about sparks starting a fire on his hay and straw piles.

Councillor Brown questioned who would ensure that only wood was burned at the site, and wondered if there was any assurance that nearby residents would not be affected by the smoke. He pointed out that burning of garbage is not allowed at the Highway 227 Waste Disposal Ground, where the nearest residence is 3 km away, and questioned why a burning site would be permitted in an area where a number of residents are in closer proximity.

CANADIAN NATIONAL RAILWAYS CONCERNS

Mr. Darrell A. Trask P.Eng., from Canadian National Railways raised concerns about potential hazards to safety resulting from smoke. The C.N.R. mainline passes about 60 m to the north of the proposed burning site, and carries an average of 26 trains a day, including 4 passenger trains. Near the burning site there are three sets of tracks, 5 control signals for eastbound traffic and 4 control signals for westbound traffic. Smoke would present a safety hazard to both road traffic crossing railway tracks, and to rail traffic if signals were obscured by smoke.

Mr. Trask pointed out that guidelines issued by the federal Environmental Protection Service control burning of railroad ties by the C.N.R. These guidelines specify, in part, that no burning can be conducted within towns or villages, etc. or in close proximity to highways or roads. The guidelines further specify that if smoke from fires gets too excessive, then the fire must be immediately extinguished.

If a licence is issued, then C.N.R. would like it to be conditional, and subject to revocation. Mr. Trask wants the licence to specify that if

Health Review (Continued)

C.N.R. considers smoke to be interfering with railway operation, then any fire at the burning site will be extinguished immediately, and that the licence be subject to an annual review.

MANITOBA HEALTH REVIEW

Dr. N.S. Rihal from the Environmental Health Services Branch of the Manitoba Department of Health discussed the health implications of the burning site proposal. He said that in any fire there will be some incomplete combustion, giving rise to emissions of toxic carbon monoxide and heavy tarry residues. This "toxic atmosphere" will have some adverse health effect on anyone exposed to it, including pregnant mares. Combustion of plastic, paints and treated woods emits chemical pollutants that could pose a serious health threat.

Dr. Rihal did not consider open burning to be an acceptable method of waste disposal, and the proximity of the proposed site to residences and businesses made this proposal especially unsuitable. Dr. Rihal said that an alternate site outside the city limits should be explored, and he would not endorse this proposed burning site.

DEPARTMENT OF ENVIRONMENT REVIEW

Mr. Larry Strachan, P.Eng., and Chief of Environmental Control Programs, Department of Environment presented a summary of responses from various government departments received by his office as a result of circulating the proposal for review.

The Provincial Planning Branch had no objections if there were no adverse effects as a result of burning. Natural Resources, Historic Resources and Highways had no concerns.

Environment Review (Continued)

Various branches of the Environment Department identified a number of concerns. They stated that open burning is not an accepted method for combustion of wastes, and an appropriate incinerator should be investigated. Smoke and other gaseous pollutants created by this type of burning can contribute to health and nuisance problems. Control on the types of materials burned would be difficult, and demolition wastes could contain paint, plastics and treated woods that are not appropriate for open burning.

The summary presented by Mr. Strachan contained the conclusion that from an environmental viewpoint, open burning of wood demolition wastes is not an appropriate practice. Burning other wood wastes is not appropriate given the proximity of the site to businesses, residences and the railway. The Clean Environment Commission should consider recommending that the Director refuse to issue a licence for the proposal.

Following this part of his presentation, Mr. Strachan pointed out that a variation to regulations respecting Waste Disposal Grounds was granted to the City of Portage la Prairie on March 2, 1988. This variation permits the open burning of wood at the Highway 227 Waste Disposal Ground. There are strict limitations to this burning. Burning of demolition waste is not permitted, and burning is only allowed twice per calendar month.

Mr. Strachan answered a number of questions following this presentation. There has been no authorized burning at the Highway 227 site to date. To Mr. Strachan's knowledge there are no burning sites located within the city limits in other Manitoba cities of similar size. Appropriate incinerators for this type of burning are available, but there are none operating in Manitoba.

Ash disposal by burying on site was appraised by the Environment Department. In the Portage area, groundwater comes from small aquifers in sand lenses, found in the upper eight meters of the ground. Deeper aquifers

Environment Review (Continued)

in underlying limestone bedrock contain salty, unpotable water. If ash leachate polluted an aquifer, it would only affect wells in a 300 m radius from the burning site. If the burning site is to be licensed, there should be a survey to determine if an aquifer is present under the site.

In answer to questions about the content and amount of smoke generated by burning, Mr. Strachan said there were a number of variables involved. The type of fuel being combusted affects the chemical make up of the smoke, and so does the temperature of the fire. A hotter burning temperature leads to more complete combustion. If only wood is burned, at high temperatures, the resulting smoke would contain carbon monoxide, particulates and some organic compounds. If plastics, paints or other materials used to treat wood are introduced, a more toxic smoke can result. Generally a hot, quick fire generates less smoke than slow fires with incomplete combustion.

Meteorological conditions will affect dispersion of the smoke. In the fall, from September to freeze-up, temperature inversions frequently occur, and cause the smoke to hug the ground. Under such conditions the plume might be detectable 3 to 5 kms away.

CONCLUSIONS

An absolute requirement for this particular burning site was not demonstrated. Materials which would be burned at the site can be disposed of in other ways, including burying or the permitted burning at the Highway 227 site.

Wood infected with Dutch Elm Disease can be disposed, under the regulations of the D.E.D. Act, either through burning until all bark material is removed, or by burying all parts of the tree to a depth of twenty-five

centimeters below the soil line. Either burning or burial of D.E.D. infected wood can be legally conducted at the Highway 227 Waste Disposal Ground. While demolition waste cannot be burned at the Highway 227 site, it can be landfilled.

There is considerable potential that paints, plastics or treated wood, as well as other construction materials such as asphalt shingles, would be burned, no matter how vigilant Cojef Ltd. may be in inspecting wastes delivered. Emissions from burning these types of materials are not acceptable in the neighborhood of the proposed burning site.

Although the convenience of having a burning site located close to the City of Portage la Prairie is recognized by the Clean Environment Commission, the site selected in this proposal is unacceptable, because open burning is incompatible with existing land uses in the area. The residents, farmers and businesses in the area should not be subjected to the health and nuisance problems operation of the burning site would cause. Smoke which would be created could present a significant hazard to safe operation of the C.N.R. mainline.

Open burning of trees and strictly wood wastes from demolition is not necessarily unacceptable, but considerably more care needs to be taken in selecting a site where adjacent land uses will not be interfered with.

RECOMMENDATION

The Clean Environment Commission recommends that the application by Cojef Ltd. for a licence for the proposed burning site in the City of Portage la Prairie be refused.

APPENDIX

COJEF LTD BURNING SITE

L I S T O F E X H I B I T S

August 9, 1989 - Hearing

1. Mr. Brian R. Sloik, resident of Portage la Prairie, Letter, (dated August 9, 1989).
2. Mr. Darrell A. Trask, CN Rail Representative, Brief, Control Burning of Track Ties on the Right-of-Way, (dated April 9, 1986).
3. Councillor Harold W. Brown, R.M. of Portage la Prairie, Submission, (dated August 9, 1989).
4. Mr. Larry Strachan, P. Eng., Chief, Environmental Control Programs, Department of Environment, Submission, (dated July 25, 1989).
- 4.A. Mr. Larry Strachan, P. Eng., Chief, Environmental Control Programs, Department of Environment, Additional Material Submitted, (dated March 2, 1988).
5. Dr. N.S. Rihal, Chief Epidemiologist, Environmental Health, Brief, (dated August 10, 1989).