

REPORT ON PUBLIC HEARINGS
LOUISIANA-PACIFIC CORPORATION
ORIENTED STRAND BOARD PLANT,
RURAL MUNICIPALITY OF MINITONAS

AUGUST, 1994

MANITOBA CLEAN ENVIRONMENT COMMISSION

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EXECUTIVE SUMMARY

In May, 1994, the Minister of Environment instructed the Manitoba Clean Environment Commission to hold public hearings and provide recommendations on a proposal from Louisiana-Pacific Corporation for the development of an oriented strand board plant in the Rural Municipality of Minitonas, Manitoba. The plant would consume 735,000 tonnes of wood and produce 277,000 tonnes of oriented strand board per year.

During the 10 days of public hearings, participants expressed concern about a number of issues, especially control of pollutants which would be emitted into the air. Prior to the hearings, the Corporation had indicated it would use wet electrostatic precipitators with multicyclones, dry electrostatic precipitators or electrified filter beds combined with multicyclones, and baghouses to control air emissions. During the course of the hearings, the Corporation announced it would also use regenerative thermal oxidizers as part of its pollution control strategy. Other issues related to pollution control which were discussed during the hearings included: contingencies for upsets, plans to respond to emergencies, monitoring of source emissions and ambient environmental conditions, a community health study, and methods for enforcing a possible environmental licence.

A number of motions related to the environmental review process were also presented. The Panel declined motions to postpone the hearings and broaden the scope of the hearings. Four groups chose to seek recourse to the Court of Queen's Bench, which denied the applications.

Following the hearings, the Panel of the Clean Environment Commission reviewed the information they had been provided, and concluded that an oriented strand board plant could be developed which would meet both the economic and environmental objectives of Manitobans and which is consistent with the principles of sustainable development. The Panel further concluded that a number of conditions to ensure the safe, on-going operation of the plant should be contained in an environmental licence covering the construction and operation of the plant.

PREFACE

Louisiana-Pacific Corporation has applied to Manitoba Environment for a licence under the Manitoba Environment Act to construct and operate an oriented strand board plant near Minitonas, Manitoba. Because of the high level of public interest in the proposal and the potential for environmental impacts, the Minister of Environment asked the Clean Environment Commission to hold public hearings and provide recommendations as to whether a licence should be issued and, if so, under what terms and conditions.

The Commissioners on the Panel which reviewed the proposal conducted 10 days of public hearings at Swan River, deliberated over the information provided, and arrived at the conclusions, observations and recommendations contained in this report. In presenting this report to the Minister, the Commission has fulfilled the request made by the Minister.

A detailed account of the evidence presented to the Panel is contained in the Verbatim Transcript of the hearing, which is available for review at the Clean Environment Commission's office and designated Public Registries.

1. ENVIRONMENTAL REVIEW PROCESS

Under the Manitoba Environment Act, a proposed development which may have significant impact on the environment requires an environmental licence before construction begins. Depending upon the extent and complexity of a project's potential impacts, a project is classified as a Class 1 development (a project with specific discharge(s) into the environment), Class 2 development (a project with specific discharge(s) and related land-use issues), or Class 3 development (a large project with a number of environmental issues). A proponent may be required to prepare an environmental impact statement, which assesses the potential impacts of the project on the environment, as part of the environmental licensing process. The public is also informed of all licence applications, and the public's participation and comments are invited. Specific details and documents related to the project are placed in Public Registries for public review.

Before a decision is made on whether a licence should be issued, the Minister may direct the Clean Environment Commission to hold public hearings and provide advice and recommendations related to that project. Following completion of the hearings, the Commission has 90 days in which to arrive at its conclusions and recommendations and to report to the Minister.

For Class 1 and 2 projects, the Director of Approvals of Manitoba Environment is responsible for deciding whether to issue a licence and, if so, what terms and conditions should apply; for Class 3 projects, the Minister makes that decision. While the Director and Minister are not obligated to accept the Commission's recommendation(s), they must state in writing their reasons for not doing so.

Appeals to a Director's licence may be made to the Minister within 30 days of his decision; in cases where the Minister makes the licensing decision, appeals may be made to the Lieutenant Governor in Council.

1.1 THE CLEAN ENVIRONMENT COMMISSION

The Clean Environment Commission is comprised of a full-time Chairperson and at least 10 part-time members, appointed by Order in Council. The part-time members, who are appointed for one- to three-year terms which may be renewed,

represent a wide variety of occupations and reside in different regions of the province. A Panel with a minimum of three members is selected for each hearing.

Four Commissioners comprised the Panel reviewing the Louisiana-Pacific Corporation oriented strand board plant proposal:

- Arnold Barr, of Portage la Prairie;
- Doreen Buchholz, of Winnipeg;
- Ravi Kumar, of Winnipeg; and
- Dale Stewart, the Chairman of the Clean Environment Commission, of Winnipeg.

A fifth Commissioner, Maurice Blanchard of Portage la Prairie, was excused from the Panel when he was called away on personal matters during the hearings.

1.2 APPLICATION BY LOUISIANA-PACIFIC

On May 9, 1994, Louisiana-Pacific officially filed an application with Manitoba Environment for an environmental licence for an oriented strand board plant to be constructed near Minitonas, Manitoba. The Corporation had publicly announced its interest in the project several months before and had been in consultation with Manitoba Environment about the requirements for an environmental licence prior to officially filing its application. The Minister wrote to the Clean Environment Commission on May 6, 1994, asking the Commission to hold hearings and provide advice and recommendations on the proposal. During the course of the public hearings, on June 27, 1994, the Corporation filed an alteration to its proposal.

The Minister in his letter set out Terms of Reference (reprinted as Appendix A) for the Commission's review of the Louisiana-Pacific proposal.

The Commission provided its normal 30 day notice of a hearing with advertisements appearing in the Winnipeg Free Press, Swan River Star and Times, and Swan River Report.

The Commission chose to hold the hearings in Swan River, the largest community in the Swan River Valley, 17 kilometers west of the Village of Minitonas. Eight days of hearings were scheduled, from June 6 to 9 and from June

13 to 16. Two more days of hearings, June 27 and 28, were added in order to complete all the submissions.

Over 90 presentations (see Appendix B) were made during the hearings, and a number of exhibits (see Appendix C) were filed with the Panel. Any person making a presentation also agreed to accept questions from anyone attending the hearings. In order to accommodate expert witnesses, a new procedure using telephone conference calls was implemented.

During the hearings, legal counsel for four participants made several procedural motions to the Commission and sought recourse on five motions to the Court of Queen's Bench. Section 3.8 of this report reviews the motions brought before the Commission. Appendix D is a copy of the written decision (without attachments) of the Honourable Mr. Justice A.A. Hirschfield respecting the applications brought before the Court of Queen's Bench.

2. THE PROPOSED PLANT

Louisiana-Pacific Corporation is proposing to build and operate a plant near Minitonas, Manitoba, which would produce oriented strand board. Oriented strand board is manufactured by combining wood chips with wax and resins under high heat and pressure, producing a panel used in a wide variety of construction applications. Oriented strand board is normally marketed in 1.22 x 2.44 meter (4 x 8 feet) sheets, similar to plywood.

The North American production of oriented strand board is 750 to 850 million square meters (eight to nine billion square feet) per year. Louisiana-Pacific projects that production of oriented strand board will increase to 1.4 billion square meters (15 billion square feet) within the next three years.

Louisiana-Pacific is a major manufacturer of building materials, industrial wood products, and pulp, with sales of \$2.5 billion in 1993. It has 129 plants with 13,000 employees. Four of the Corporation's plants are in Canada, including one at Dawson Creek, B.C., which produces oriented strand board. The Corporation's 17 oriented strand board plants in Canada and the United States produced 325 million square meters (3.5 billion square feet) of product last year. The proposed Minitonas plant, with an annual capacity of 432,000 cubic meters, would be among Louisiana-Pacific's largest.

The Minitonas plant would operate continuously, 24 hours a day, seven days a week, with 160 employees and a payroll of \$6 million per year. Another 250 to 300 people would be employed in the woodlands operation with an estimated cost of \$17 million.

Louisiana-Pacific would like to begin construction at Minitonas during the summer of 1994. Construction would take 12 months to complete with an investment of \$80 million.

2.1 MINITONAS AND THE SWAN RIVER VALLEY

The proposed plant would be in the Rural Municipality of Minitonas in west-central Manitoba. Minitonas is located in the Swan River Valley, 450 kilometers

northwest of Winnipeg and 50 kilometers east of the Manitoba-Saskatchewan border. (See Figure 1.)

The Duck Mountains are to the south, the Porcupine Mountains to the north, and the Lake Winnipegosis lowlands to the east. The irregular topographic relief of the area ranges from 300 meters (990 feet) above sea level in the north to 640 meters (2,100 feet) in the south.

Average mean temperatures range from -18.8° Celsius (-1.8° Fahrenheit) in January to 18.5° C. (65.3° F.) in July. Average annual precipitation is 50 centimeters (20 inches), with the majority falling during the summer when flooding may occur.

The rich agricultural soils of the Valley are the foundation of the area's economic activity. Forestry based in the Duck and Porcupine Mountains is also an important industry. The total workforce is 5,500.

The Valley is home to 11,487 people, including 544 in the Village of Minitonas, 1,227 in the Rural Municipality of Minitonas, and 3,917 in Swan River, the largest community in the Valley. The population of the Valley has fallen by 12 percent over the past two decades.

2.2 PLANT SITE

Seventeen criteria were used in selecting potential sites for the plant and in narrowing those potential sites to the one which was selected. The criteria included infrastructure considerations, such as access to transportation facilities and proximity to the wood supply, and environmental considerations, such as soil conditions, water supply, and the absence of endangered species of plants and animals. While the work force must be in relatively-close proximity to the plant, the site-selection criteria also favoured sites with a relatively low population density near the plant.

The 130 hectare (320 acre) site (E-1/2 16-36-25W) selected for the plant is located three kilometers (two miles) east of Minitonas and 20 kilometers (12.5miles) east of Swan River. The site is bordered by Provincial Trunk Highway 10 to the north and local roads on the east and west, and is crossed by a Canadian National Railways (CNR) line towards the south end.

Seventy-five people in 23 residences live within a three kilometer (two mile) radius of the plant site. Within 10 kilometers (6.2 miles) of the plant, there are another 370 residences, 240 of which are in the Village of Minitonas.

While the land selected for the plant site is classified as agricultural, it is not considered to be highly productive. The site has some wooded areas, portions of which may be retained for visual screening.

The site slopes downward toward the north, with an elevation ranging from 336.0 meters (1,102 feet) to 327.0 meters (1073 feet). The area around the plant site has a well-developed drainage system, and the CNR rail line to the south also acts as a dike. While the Valley in general has been prone to flooding, most recently in 1993, there are no records of flooding on the proposed site of the plant. The plant site would be built up above the natural grade.

There are 22 wells for domestic and livestock use within 3.2 kilometers of the site and 77 within a 10 kilometer radius.

2.3 PLANT FACILITIES

The plant site would consist of a 28,000 square meter (300,000 square foot) building, log yard, bark storage area, ash storage building, surface water containment pond, fire pond, pump house, septic system, a security building at the entrance, and a rail spur to the CNR line. The main building would contain the administrative offices, all the process equipment, and the warehouse.

2.4 THE MANUFACTURING PROCESS

The following are the steps in the manufacturing process for oriented strand board:

Log yard: Logs delivered in precut, 2.5 meter (eight foot) lengths are stored up to three months in the log yard. Logs are used on a first-in, first-out basis.

Steam chest: The bark is softened in the steam chest, and the logs are transported on conveyors to the debarker.

Debarker: Bark is removed at the debarker and the logs are washed to remove grit. The clean, bark-free logs are transported by conveyors to the waferizers.

Waferizers: There are three waferizers which cut the logs along the grain into wafers varying in size from 7.6 to 10.2 centimeters (3 to 4 inches) long, 1.27 to 2.54 centimeters (1/2 to 1 inch) wide, and 0.07 centimeters (0.028 inches) thick. The wafers are moved by conveyors to the "green" (or wet) storage bins.

Storage bins: The wafers are temporarily held in one of four wafer storage bins.

Dryers: The wafers are fed into one of four direct-fired, triple pass, rotary dryers. When the wafers enter the 18.2-meter (60-foot) long dryers, the wafers contain 50 percent moisture; when the wafers exit the dryers, the moisture content has been reduced to 10 percent.

Primary cyclone and classifier screen: The wafers are transported pneumatically from the dryers to a primary cyclone which separates the wafers from the dryer exhaust gases. A classifier screen then separates the wafers from the fines.

Dry storage bins: An enclosed conveyor moves the wafers to one of three dry-wafer storage bins. Two bins hold the larger wafers which will be used on the surface layers of the panels (i.e. boards) and one bin holds the smaller wafers which will be used in the core.

Blenders: The wafers are fed continuously from the storage bins into blenders where they are mixed with resins and wax. The wafers which will be used on the surface layers of the final panels are blended with phenol-formaldehyde resins, and the wafers used in the core layers are blended with liquid diphenyl-methane diisocyanate (MDI) resin. The wax mixed into both surface and core layers improves moisture resistance and resin distribution.

Forming bins: The wafers, now blended with resins and wax, are moved by enclosed conveyors to the forming bins. Since the final panel is composed of four layers, there are four forming bins: two bins for the two surface layers and two bins for the two core layers. Wafers are metered from the forming bins, passing through distribution or orienting heads onto the forming line.

Forming line: The forming line has a system of screens. As a screen passes the first forming bin, a layer of surface wafers is distributed onto the screen. The screen then passes under the forming bins containing core wafers, receiving two more layers of wafers, and the final bin for the final surface layer of wafers. The 2.4 x 7.3 meter (8 x 24 foot) screens proceed to the press, the screens are removed from the mats, and the mats are loaded into the press.

Press: The press accommodates 14 mats, each about 2.4 x 7.3 meters (8 x 24 feet) at a time. Plates in the press are heated to 232° C. (450° F.) and a hydraulic system applies a typical pressure of 4,480 kPa (650 psi). Heat and pressure from the press, along with the residual moisture in the wood wafers, combine to bond the resin to form an oriented strand board panel.

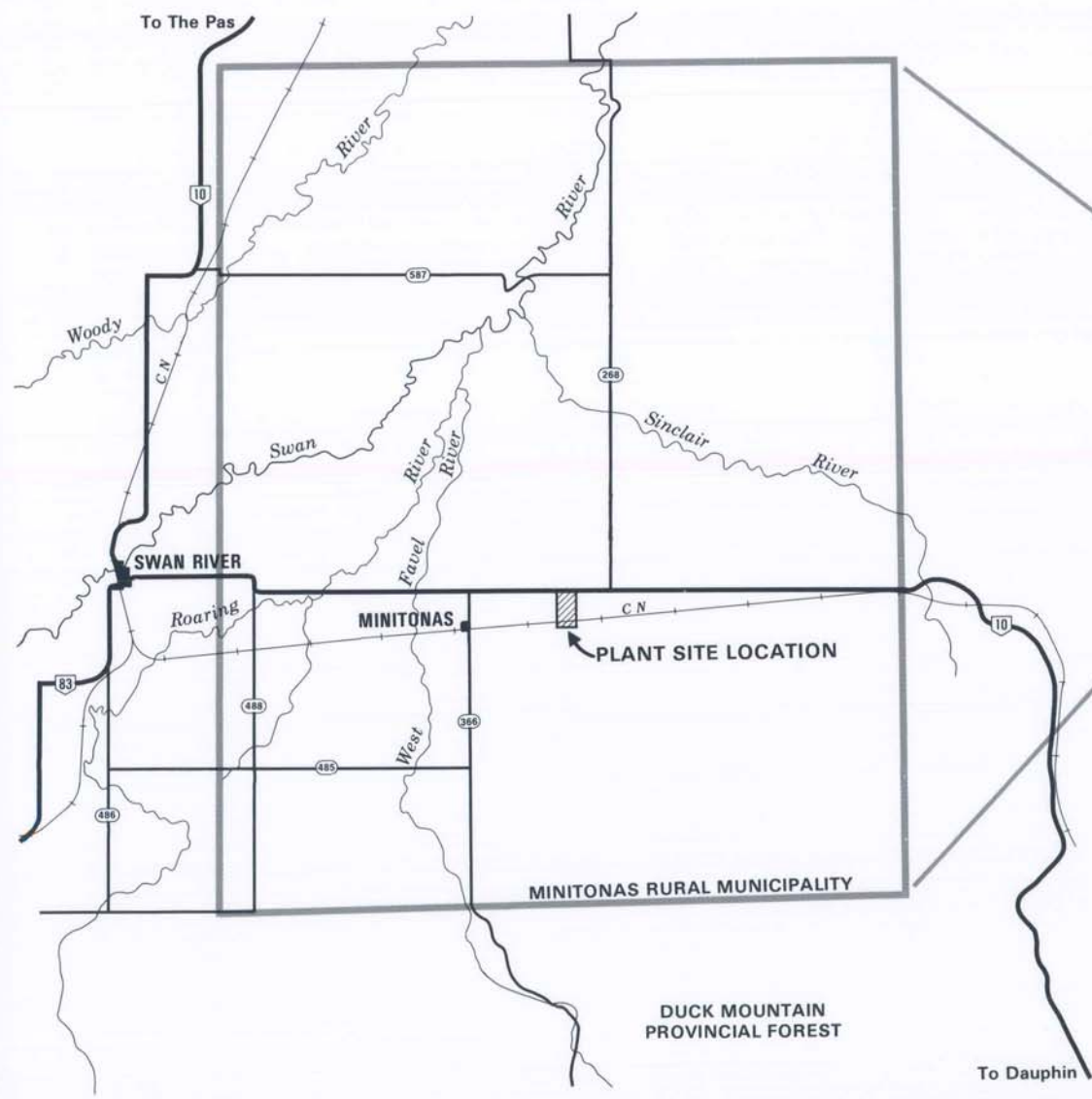
Secondary processing, warehousing and shipping: The pressed boards are trimmed to the final panel size, normally 1.22 x 2.44 meters (4 x 8 feet). Some may also be routed to secondary processing equipment such as sanders and tongue-and-groove machines. The panels are stacked and bundled; the edges are spray-coated with a latex-based, water resistant edge seal paint; and the finished bundles are spray stenciled with the Corporation logo and allowed to cool before being shipped by rail or truck from the warehouse.

2.5 INPUTS

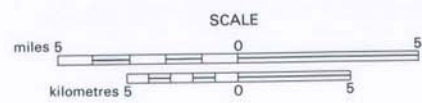
In total, 735,000 tonnes (810,00 tons) of wood would be required by the plant annually. The wood — a minimum of 80 percent aspen and a maximum of 20 percent softwoods — would be obtained from provincial Crown lands and private woodlots.

The Minitonas plant would also use 7,200 tonnes (7,940 tons) of resin and 2,770 tonnes (3,054 tons) of wax per year. Resins and wax would be delivered by truck or rail and stored in bulk storage tanks in a separate room inside the main building. Resins are regularly pumped into smaller, day-use tanks from which they are metered into the blenders.

The plant would also require a maximum of 240 litres (52 Imperial gallons) of water per minute for the manufacturing process, domestic use, and fire-protection pond.



**Figure 1
PROPOSED
LOUISIANA-PACIFIC
ORIENTED STRAND BOARD
SITE LOCATION PLAN**



The majority of the water required by the plant would come from surface drainage at the plant site. A water containment pond would collect runoff from the log yard and outdoor bark storage area and would use this water to supply the 200 litres (44 Imperial gallons) per minute required in the manufacturing process. During droughts, groundwater could be used to top up the containment pond.

An average of 40 litres (8.8 Imperial gallons) per minute of groundwater would be used to supply the fire-protection pond and for domestic needs within the plant.

2.6 OUTPUTS

The Minitonas plant would produce 277,000 tonnes (305,000 tons) of oriented strand board in a year.

Over 572,000 tonnes (630,000 tons) of related byproducts and emissions would also be produced in a year. Some of the byproducts, such as bark and wood fines, would be used in the manufacturing process, and others would become waste. The environmental impact statement projected that over 3,750 tonnes (4,140 tons) of pollutants would be produced annually; that amount would be reduced with the addition of regenerative thermal oxidization technology, a commitment made by the Corporation after the environmental impact statement was completed.

2.7 CONTROL OF EMISSIONS

Air

Air emissions would be produced by the thermal-oil heaters, incinerators, dryers, and press, as well as the baghouses. Under normal operating conditions, these emissions would be: total suspended particulate matter, carbon monoxide, oxides of nitrogen, sulfur dioxide, volatile organic compounds, formaldehyde, benzene, phenol, and MDI (diphenyl-methane diisocyanate).

Louisiana-Pacific originally proposed the following air-emission control regime:

- Thermal-oil heating system: a multicyclone with either a dry electrostatic precipitator or an electrified filter bed.

- Incinerator: a multicyclone with either a dry electrostatic precipitator or an electrified filter bed.
- Dryers: Cyclones and wet electrostatic precipitators.
- Trim-and-grade, dry bins-formers, raw fuel storage, tongue-and-groove/sander mat trim unit, and fuel metering: Baghouses.

During the course of the hearings, the Corporation amended its proposal by committing itself to install regenerative thermal oxidization technology on the dryers and press.

Sludge

Sludge collected in the wet electrostatic precipitators would be burned in the thermal-oil heaters, where it would be reduced to ash.

Bark

Eighty-eight thousand tonnes (97,000 tons) of bark would be produced annually, mostly in the debarking process. A small amount would be collected from the log yard and ditches after falling from logs stored outdoors.

A bark hog would process the bark into fuel for the thermal-oil heating system, which produces heat for the press plates, steam chest and building. Covered conveyors would carry excess to the bark storage pile in the log yard. The excess bark would be sold or burned in the incinerator.

Normally, bark would be used to fuel the thermal-oil heater, but during the plant start-up and in the event of equipment malfunctions, fuel oil or natural gas could be used.

Fines

Wood fines generated throughout the production process would be collected and transported by conveyors to the fuel preparation area. A hammermill would process the fines into a dust-like consistency. They would be stored in the process-fuel storage bin and used as fuel in the dryer burners.

Excess wood fines are stored with the excess bark.

Ash

Almost 1,750 tonnes (1,930 tons) of ash would be produced annually in the incinerator, thermal-oil heating system, and the dryer burners. Ash would be moved in an enclosed system and deposited in a storage shed to await final disposal.

In the Corporation's experience, the chemical elements of ash have varied from location to location. For example, ash from some plants has been high in pH, and in other plants the ash has been high in cadmium. Although ash from some oriented strand board plants has been used as a fertilizer and soil conditioner, it is expected that the ash from the proposed Minitonas plant would not be compatible with soils in the Swan River Valley.

The ash would be tested, neutralized if necessary, and hauled to a local landfill site.

Surface Water Runoff

The log yard and bark storage area would be graded and bermed so that surface drainage water would flow to the water containment pond. The water containment pond would be designed to withstand a 1-in-100 year flood.

Recent studies in British Columbia have found that aspen wood yards have the potential to produce a leachate which is high in phenols. To protect groundwater from phenols, the log yard, bark storage area and water containment pond would be constructed with a clay or synthetic liner to minimize seepage. Phenols also break down quickly, are filtered by soil, and are consumed by organisms present in soil.

Water from the containment pond would be used in the manufacturing process.

Other Wastes

The Corporation said it would recycle as much solid waste as possible and use local landfills for other domestic waste. Storage and handling of petroleum would

be in accordance with the Gasoline and Associated Products Regulation, and waste oil would be handled in accordance with the Dangerous Goods Handling and Transportation Act. A septic system would handle domestic liquid wastes.

Traffic

Between 365 and 565 vehicles are expected to travel to and from the plant daily, with the highest traffic in winter. All traffic areas would be asphalted to reduce dust.

3. ISSUES

During the 10 days of public hearings, presentations were made by Louisiana-Pacific, including its resin suppliers and consultants who prepared the environmental impact statement, local officials, representatives of two provincial government departments, and interested citizens, both as individuals and representatives of various groups.

3.1 ANALYSIS OF RISKS

As in many industrial plants, risks are inherent in the operation of an oriented strand board plant. There was general consensus among experts at the hearing that, in analyzing these risks, a number of factors need to be considered, including the nature and concentration of the pollutants, the health and environmental problems associated with the activities and the substances, and technologies used to reduce these pollutants. Limits chosen to protect human and environmental health should be established for pollutants, and controls applied to any emission or combination of emissions which would be in excess of the acceptable exposure levels.

Identification of Possible Pollutants

Manitoba Environment, like similar departments in other jurisdictions, has developed air quality guidelines identifying the maximum concentrations of various pollutants considered safe for people and the environment. In Manitoba, limits for various pollutants are set out and enforced through environmental licences.

In the environmental impact statement, the Corporation identified and described the potential health affects of nine pollutants: carbon monoxide, sulfur dioxide, oxides of nitrogen (nitric oxide and nitrogen dioxide), total suspended particulates, and volatile organic compounds including benzene, formaldehyde, polymeric diphenyl methane diisocyanate (MDI), and phenol. An appendix to the environmental impact statement listed emissions from wood combustion without indicating those that could be expected specifically from an oriented strand board plant or what the health implications of each might be.

Some participants said that the Corporation should have used tests from its existing oriented strand board plants to identify all potential pollutants; the health impacts of those additional pollutants could then have been explained. As examples, participants cited benzo(a)pyrene and benzo(b)fluorathene, two potentially-carcinogenic volatile organic compounds named in the Appendix of the environmental impact statement but for which no further information was provided. Terpenes, which provide the characteristic wood odour associated with such plants, was another volatile organic compound not discussed in the environmental impact study.

In response, the Corporation said the pollutants with known risks were considered in the environmental impact statement. Volatile organic compounds and terpenes are readily dispersed and, to the Corporation's knowledge, no jurisdiction has established an emission limit for volatile organic compounds as a group or for terpenes.

A participant said international medical literature often groups volatile organic compounds and characterized their treatment in the environmental impact statement as normal. Many of these compounds are poorly understood, but by controlling those volatile organic compounds which are better understood, the other compounds would hopefully be controlled as well.

Manitoba Environment said pollutants in addition to those described in the environmental impact statement could be identified and controlled, but that a full list and description was not available at the time of the hearings, either from the Corporation or the United States Environmental Protection Agency. As well, results from an existing plant in another location could not be automatically extrapolated to predict exact emissions for the proposed Minitonas plant because of a number of variables, including the composition of the wood, various drying temperatures, and other production inputs and controls. Manitoba Environment said it could either a.) attempt to identify all possible pollutants and establish limits for their emission prior to issuing an environmental licence or b.) test emissions from the plant when it is commissioned and establish limits for any pollutants not covered by the licence.

Establishment of Air Quality Objectives

To assist with the analysis for proposed projects, Manitoba Environment has adopted guidelines specifying the maximum allowable concentrations of 17 different pollutants, including four — carbon monoxide, nitrogen, sulfur dioxide, and suspended particulate matter — which would be emitted from the proposed oriented strand board plant. For pollutants not included in the Manitoba air quality guidelines, the Department would normally consider standards used by other jurisdictions and would research technical literature, in order to establish emission limits which would be set out in an environmental licence.

In preparing the environmental impact statement, the Corporation considered air quality standards from Ontario and the United States for those chemicals not included in the Manitoba air quality guidelines.

Modelling of Plant Emissions

To assist with predicting the impact of air emissions, consultants were hired by the Corporation to predict air dispersion from the proposed plant. The air dispersion model chosen by the consultants used atmospheric information gathered over a five year period at Swan River.

Participants were concerned that the model may not have accounted for possible temperature inversions and the rolling topography of the area.

However, both the United States Environmental Protection Agency and Manitoba Environment, which said the data would account for temperature inversions, endorsed the model.

The Corporation's consultants also based their estimates on maximum emissions under normal operating conditions at the plant. For example, the model assumed that all excess bark would be burned in the incinerator, rather than being used as mulch or fuel at some other location. The model was also based on the manufacturing process using four percent formaldehyde and four percent MDI in the final product, which is more than any product is likely to contain. (Most oriented strand board panels produced by the Corporation contain 2.6 percent resins, made up of both MDI and formaldehyde combined. However, by using four

percent each of MDI and formaldehyde, the model has factored in greater manufacturing flexibility for specialized products such as exterior siding.)

The Corporation emphasized that the modelling likely over-estimated emissions. Some mills, for example, emit only 135 kilograms (300 pounds) of MDI per year, compared to the 4.4 tonnes (4.9 tons) predicted for Minitonas. In fact, the Corporation said that MDI had never been detected beyond the property boundary of an oriented strand board plant, even with monitoring equipment which could detect MDI at 50 or 100 parts per trillion.

The conservative approach to the modelling was generally endorsed by participants at the hearings. Not only had the model used maximum inputs of wood and resins, Manitoba Environment also noted that the maximum ground level concentrations detected by the model were within the boundaries of the plant site, rather than on neighboring properties.

However, some participants pointed out that the modelling did not account for upset conditions. For example, if the thermal-oil heater bypassed the dry electrostatic precipitator, emissions would increase significantly. As a result, the modelling would not reflect the risks associated with such an upset condition.

Some participants were also concerned that the model did not consider MDI and other resins burned in the wafer dryers (as part of the wood fines) or in the thermal-oil heater or incinerator (as solidified waste), or the increased oxides of nitrogen emissions which would result from the addition of regenerative thermal oxidizers.

Air Quality Guidelines Applied to Predicted Emissions

An analysis of air dispersion modelling concluded that air emissions from the Minitonas plant would be within acceptable air quality guidelines for those elements for which standards exist. Therefore, the Corporation concluded that emissions would cause no adverse human health affects.

Although emissions would meet the air quality guidelines, a number of pollutants — total suspended particulates, oxides of nitrogen, MDI, odour, and additive and synergy affects — still caused concern for some participants at the hearings.

Total suspended particulates: Although total suspended particulates would be well below the existing Manitoba ambient air quality guideline, some participants at the hearings were particularly concerned with a sub-category of particulates, PM₁₀, which are those particulates smaller than 10 microns in size.

A national working group, led by the federal government, is attempting to arrive at ambient air quality guidelines for PM₁₀. In the absence of such a standard, a couple of different approaches were suggested for dealing with PM₁₀ at the proposed Minitonas plant.

Some participants said that PM₁₀ should be addressed when federal guidelines are available and took the position that until such a guideline is available, the Corporation should install control equipment to provide the lowest possible emissions of PM₁₀.

The Corporation, in its environmental impact statement, noted that 61 percent of particulates from its Dawson Creek plant were PM₁₀. Based on that, as well as on the total suspended particulate emissions projected for the proposed plant, the Corporation made an extrapolation which concluded that emissions of PM₁₀ would fall within a future, possible standard. However, Manitoba Environment questioned the appropriateness the Corporation's extrapolation and conclusion.

Oxides of nitrogen (NO_x): Although the emission of nitrogen oxides would be within the Canadian air quality objectives, the maximum annual production of 560 tonnes (620 tons) of the oxides still concerned some participants.

The Corporation said it was not required to control oxides of nitrogen on its plants in the United States. However, the United States Environmental Protection Agency told the hearing that it had never encountered an oriented strand board plant which emitted 560 tonnes of oxides of nitrogen, and would require controls if a plant were emitting 36 tonnes (40 tons) or more of oxides of nitrogen.

Participants noted that the installation of regenerative thermal oxidizers, which burn gas as part of their operation, would increase the production of oxides of nitrogen beyond the projections in the environmental impact statement. The manufacturer of the regenerative thermal oxidizers is attempting to lower the generation of oxides of nitrogen.

Manitoba Environment said that a possible licence would set a limit for oxides of nitrogen, but the Department was not concerned about the levels projected in the environmental impact statement since they met existing air quality guidelines.

MDI: Of all the pollutants which would be emitted from the proposed plant, MDI generated the most discussion at the public hearings.

Participants were most concerned about MDI's sensitizing effects. Once sensitized to an element, such as MDI, a person will experience an adverse effect to that element even when it is within levels established by air quality guidelines. Sensitized individuals who are exposed to MDI can suffer allergic reactions, asthmatic problems, anaphylactic shock, and death.

Some people are more pre-disposed to sensitization, but an individual's susceptibility cannot be predicted in advance. About 15 percent of the population is easily sensitized and another 25-35 percent are less easily sensitized. Sensitization may develop from very short exposure times or it may take months to develop. However, standards have been established for MDI concentrations in the workplace to protect people from being sensitized. People who become sensitized can no longer work with MDI.

Louisiana-Pacific acknowledged that a few of its employees had encountered difficulties with MDI in the mid 1980's, but said that improved workplace practices in recent years had prevented a recurrence of those problems.

The Corporation said that MDI impacts had been restricted to its employees and had not occurred in the general population. Emissions are low, and when emitted into the environment MDI degrades rapidly or reacts with water or binds with other matter to form new material which is not dangerous. Although MDI binds to proteins, including human tissue, the Corporation said concentrations outside the plant are undetectable or too low to adversely affect people.

There was also discussion between the Corporation and participants about other health affects, including birth defects and changes to the DNA. The Corporation said such suggestions had not been supported by scientific data bases, and the full text of studies referred to by the participants in the hearings were not presented to the Corporation for a professional evaluation.

Odour: The Corporation, in the environmental impact statement, stated that none of eight chemicals evaluated in the environmental impact statement would reach odour thresholds, but odours may be noticed from time to time under "upset" conditions at the plant.

A participant pointed out that the Corporation had not considered terpenes which cause the characteristic strong smelling, irritating odour of overheated wood. This would be an important factor if a plant were located adjacent to a residential area, said the participant.

Manitoba Environment reported that it was considering two options to ensure that controls on odours could be enforced through an environmental licence. One method would be to establish thresholds for odour-causing compounds; another would be to include a general nuisance clause in the licence, similar to some permits issued by the United States Environmental Protection Agency.

Additive and synergy effects: Some participants expressed concerns about the additive and synergistic affects between some materials.

When certain materials are brought together, they are more toxic in combination than their individual toxicities would suggest. For example, asbestos miners who smoke were found to have a much greater chance of contacting cancer than co-workers who do not smoke or other smokers who do not work in asbestos mines, because of the combined impacts of smoke and asbestos. Similarly, sulfur dioxide and PM₁₀, which would be emitted from the Minitonas plant, may be more toxic when present together.

Some participants said the total affect of a complex mixture such as sulfur dioxide, formaldehyde, dusts, volatile organic compounds and other materials (including background concentrations) should be explored. The potentially-susceptible target populations should also be identified.

Noise: Noise levels within a kilometer of the plant would be expected to be within Manitoba's maximum nighttime acceptable level of 50 decibels in a residential area. While the expected noise level is low, a participant noted that noise can be more bothersome to some rural residents who are less accustomed to noise than urban residents.

3.2 CONTROL TECHNOLOGY

Louisiana-Pacific said it would install technology to achieve emission requirements. That equipment would include:

- **Wet electrostatic precipitator with a multicyclone:** The wet electrostatic precipitator would remove 90 to 95 percent of particulates being emitted from the dryers and are considered by the United States Environmental Protection Agency to be the best available control technology for controlling particulates from oriented strand board plants.
- **Dry electrostatic precipitator or electrified filter bed, either of which would have a multicyclone:** The dry electrostatic precipitator or electrified filter bed would remove 90 to 95 percent of particulates being emitted from the thermal-oil heating system and incinerator. (While the Corporation indicated a final decision has not been made between the two technologies, it most frequently spoke of using the dry electrostatic precipitator.)
- **Baghouses:** Bagothouses would be used to filter fine particulates from the air at six locations in the plant (trim and grade, dry bins-formers, raw fuel storage, tongue-and-groove/sander mat trim unit, and fuel metering). Bagothouses would achieve 99.7 to 99.9 percent efficiency in removing particulates.
- **Regenerative thermal oxidizers:** The regenerative thermal oxidizers would remove at least 90 percent of the volatile organic compounds and 98 percent of carbon monoxide produced by the dryers and presses.

The Corporation also indicated it would use clay or synthetic liners to prevent phenols in surface drainage from leaching into the groundwater.

A number of issues related to emission control emerged during the hearings, including the Corporation's initial decision not to install regenerative thermal oxidizers, emissions of MDI within the plant, the use of lower temperatures to dry the wafers, the Corporation's choice of resins, the lack of control for oxides of nitrogen, and other options for controlling emissions.

Regenerative Thermal Oxidization

Members of the public were concerned that the Corporation had not included regenerative thermal oxidation technology as part of its original proposal. The public pointed out that the Corporation, as part of a consent decree reached with the United States Environmental Protection Agency in 1993, had agreed to add regenerative thermal oxidation technology to 11 oriented strand board plants in the United States.

When the hearings opened, the Corporation said that, based on its experience in attempting to apply regenerative thermal oxidation technology to existing plants, it was not convinced that the technology was reliable. The Corporation indicated that severe technical difficulties were being encountered with tests on the regenerative thermal oxidizers installed at the Corporation's plant in Hayward, Wisconsin.

The Corporation also said major American corporations were prepared to challenge the Environmental Protection Agency's decision to designate regenerative thermal oxidizers as best available control technology.

The United States Environmental Protection Agency, in testimony during the hearings, acknowledged problems were being encountered at Hayward. However, the Environmental Protection Agency said that other plants which had regenerative thermal oxidization equipment were operating well or were overcoming the problems which they had encountered. In response, the Corporation said those plants were operating under different circumstances which included the use of southern pine instead of aspen.

When the hearings reconvened June 27, the Corporation announced a commitment to install regenerative thermal oxidizers on the dryers and the press vents. The Corporation's decision was based on information from the manufacturer of the regenerative thermal oxidizers at Hayward. The manufacturer, in a letter to the Corporation which was presented to the hearing, acknowledged that the equipment had not performed satisfactorily. However, the manufacturer also identified potential causes and solutions for the problems. As part of the solution, the manufacturer recommended that wet electrostatic precipitators be installed in Hayward. (The Corporation's original proposal for Minitonas included wet electrostatic precipitators on the dryers; the press would produce significantly less particulate and would not be equipped with wet electrostatic precipitators.)

The Corporation based its decision to add regenerative thermal oxidizers on the manufacturer's assurance that the problems encountered to date could be solved. Nonetheless, the Corporation said its commitment to the Minitonas proposal was unconditional. An amendment to its application for an environmental licence was formally filed with Manitoba Environment.

Internal Plant Environment

Some participants had heard reports of some people becoming ill because of exposure to chemicals, particularly MDI, within existing oriented strand board plants.

The Corporation said safety procedures would be established within the plant, and employees who did not follow those procedures could be dismissed. As well, the resin suppliers, as part of their product stewardship programs, would provide additional training for plant workers. Both area and personal monitoring devices would be used to detect MDI.

Participants were still concerned that employees could be exposed to the chemicals if the safety equipment malfunctioned or safety procedures were not followed.

Other Options

Participants noted that the environmental impact statement did not discuss alternative technologies for control emissions, an observation shared by Manitoba Environment.

During the hearings, a number of options were mentioned.

Lower temperatures for drying wafers: As the green wafers (which have over 50 percent moisture content) pass through the dryers, the temperature of the dryers would be raised or lowered to ensure a steady production of dry wafers (which contain less than 10 percent moisture). The inlet temperatures could range from 540° to 815° C. (1000° to 1,500° F.), and exhaust gases from 93° to 121° C. (200° to 250° F.). In general, higher temperatures would be required in winter, when logs are frozen.

Some participants suggested that lower dryer temperatures could be used in conjunction with other control technologies to reduce carbon monoxide, particulates, and volatile organic compounds produced during the drying process.

The Corporation and the Environmental Protection Agency, in testimony presented during a telephone conference call, did not necessarily agree that a lower inlet temperature would create the desired effect. They said the lower temperature would reduce the amount of wood being dried, and the reduction in emissions would only be the result of lower production.

Manitoba Environment said that most literature on the affects of lower temperature drying was from the mid-1980's. The Department had not come to a conclusion on the use of lower temperature drying, but would consider assigning a range of temperatures within which the proposed plant would have to operate if it was licensed.

Choice of resins: Public participants noted that some producers do not use any MDI in their oriented strand board, and questioned why Louisiana-Pacific would use MDI instead of other resins in its manufacturing process.

The Corporation said that, as part of its marketing program, it has trademarked the name Inner Seal, which denotes the use of MDI. The Corporation would not be prepared to use a different process at the proposed Minitonas plant.

Louisiana-Pacific added that, since MDI is the single-most expensive ingredient in the production of oriented strand board, the public could be assured that the Corporation would not over-use MDI.

The mix of hardwoods and softwoods: The Corporation is proposing to use a minimum of 80 percent hardwood (aspen) and a maximum of 20 percent softwoods in the Minitonas plant. The 80-20 mix is based on the composition of the existing forestry resource. The Corporation indicated that there would be times that a much larger percentage of aspen would be used.

The Corporation and participants both favoured the use of aspen over softwoods, as aspen produces about three times fewer volatile organic compounds than softwoods.

Oxides of nitrogen: The Corporation had offered no control methods for oxides of nitrogen emission because controls had not been required in the United

...the predicted emissions from the proposed Minitonas plant would be within Manitoba air quality guidelines.

However, representatives of the Environmental Protection Agency said that controls would be required if a plant in the United States was emitting the 560 tonnes (620 tons) of oxides predicted for the Minitonas plant. Several different control technologies were suggested, including low NO_x burners, synthetic catalytic reduction technologies, and ammonia injection systems.

Bio-remediation: In response to participants' inquiries, the Corporation said it did not believe bio-remediation would be a viable option in Manitoba's cold climate and would require a large amount of land.

Plume dispersion: A participant noted that coal fired power plants equipped with wet scrubbers often improve plume dispersion by reheating to improve the buoyancy. It was also suggested that air dispersion models should consider different stack heights of up to 45 meters (150 feet).

3.3 RELIABILITY OF THE TECHNOLOGY

Responding to concerns about the reliability of the emission control equipment, the Corporation said one shift per week would perform preventative maintenance.

As well, based on past experience, the Corporation said the emission control equipment would be operational 99 percent of the time.

As noted earlier, the Corporation is concerned about the reliability of the regenerative thermal oxidizers and relied on the manufacturer's assurance that the technology could be adjusted to function properly. The Corporation was also meeting with two other manufacturers of regenerative thermal oxidizers.

The Corporation also indicated it would operate its stack at 60° C. (140° F), a temperature which a participant said is within an effective range for pollution control. Manitoba Environment indicated it would consider setting limits for the stack temperature if a licence is issued.

There was general acceptance about the effectiveness of baghouses.

Contingency for Upsets

The Corporation indicated that, in most cases, it would be prepared to shut down processing equipment if pollution control equipment were to malfunction.

Each dryer would be equipped with an E-tube and no bypass. If a wet electrostatic precipitator was not functioning, the dryer would not be operated. In such a case, the other three dryers would be able to continue to operate, since each would have its own, functioning E-tube.

The thermal-oil heating system would be designed with a bypass. If the dry electrostatic precipitator were to malfunction, the thermal-oil heating system would switch to oil or natural gas. Emissions from the bark burner would go uncontrolled until the fire burned itself out. The Corporation said the bypass was a safety feature, since the thermal-oil heating system also heats the plant. While the emissions would not be directed through the pollution control equipment, natural gas would burn much cleaner than bark.

Manitoba Environment said a licence could require the Corporation to take immediate action in the case of a malfunction, and report the malfunction to the Department for further direction.

Surface water containment pond: The surface water containment pond would be designed to withstand 1-in-100 year flood, and water from the pond would be used in the manufacturing process. However, should it be necessary to otherwise remove water from the pond, the Corporation said it would have the water tested and seek approval from Manitoba Environment before releasing water into the environment.

Catastrophic Event

Citing major environmental accidents in India and Alaska (the release of MIC at Bophal and the Exxon Valdez oil spill, respectively), some participants at the hearings called accidents the greatest threat for industrial pollution. Participants also cited a recent fire at the Corporation's plant at Sagola, Michigan, and the environmental impact statement which reported that oriented strand board plants average one or two fires every two years. The participants maintained the

Corporation should have provided more information on how emergencies would be handled.

In response, the Corporation explained how a fire would be restricted to a specific area of the manufacturing process. The Corporation also said it would train its own on-site emergency response team and hold monthly safety meetings for each crew. As well, a back-up power source would be connected to the fire fighting equipment, and the plant would be equipped with a sprinkler system. The Corporation has committed equipment to the local fire department and would also meet requirements of government regulators and its insurers in constructing the plant.

Participants were particularly concerned about the affects of a fire on resins used at the plant. The Corporation noted that the resins are stored in a separate, fire-rated room with sprinklers as an extra precaution. Fearful that water and volatized MDI could create hydrogen cyanide, which caused hundreds of deaths at Bophal, India, participants and Manitoba Environment suggested that a carbon dioxide system be substituted for the water sprinklers in the resin-storage area. However, the Corporation said that MDI, which is a diisocyanate, could not create the same atmosphere as MIC, the isocyanate which caused the tragedy in India.

3.4 MONITORING

Should the Minitonas plant go into operation, emissions from the plant would be monitored to ensure that they remain within the limits established by the licence.

Louisiana-Pacific put forward a monitoring program which covered three general areas: stack testing; ambient air, surface water and groundwater testing; and health studies. The Corporation also responded favourably when asked by participants if it would agree to hiring an environmental manager and undertaking an environmental audit. Manitoba Health also put forward a plan for monitoring of the health of local residents.

Air Emission Monitoring

The Corporation proposed that the stack tests be undertaken by independent, specialized contractors, with Manitoba Environment and Corporation representatives available as witnesses.

The Corporation said the most important phase would be the first set of tests, performed during the plant commissioning. These tests would ensure that the plant and the control equipment were functioning as expected.

The Corporation suggested future tests could be done annually, although more frequent testing is sometimes required in other jurisdictions for a new plant. Participants questioned if annual tests would be frequent enough.

In the Corporation's proposal, the emissions sampled would depend upon the stack. For the dryer stack, tests would be done for total suspended particulates, volatile organic compounds, and formaldehyde. The press stack would be tested for total suspended particulate, formaldehyde, and MDI. The two stacks for the thermal-oil heater and the wood waste incinerator would each be tested for total suspended particulate. The volumetric flowrates, stack gas temperatures, and facility production rates at the time of the tests would also be included in the final report. A monitoring regime related to the installation of the regenerative thermal oxidizers was not put forward at the hearings.

Participants reviewed enhanced monitoring requirements set out in the consent decree between the Corporation and the United States Environmental Protection Agency. Those requirements include continuous opacity monitoring emissions from the stacks and for fugitive emissions from the presses and cooling stands, continuous monitoring for volatile organic compounds (or parameters such as air flow and temperature) on pollution control equipment, and continuous monitoring for carbon monoxide. According to the agreement with the Environmental Protection Agency, the monitoring equipment must be functioning 95 percent of the time and repaired or replaced within seven days if it is not operating properly. The Corporation said it would abide by similar requirements if required in a Manitoba environmental licence.

Similarly, the Corporation agreed that, if required by an environmental licence, it would maintain records the same way as it does in the United States. In response

to a participant's inquiry, the Corporation also said it would report malfunctions of monitoring equipment within one hour of the event to Manitoba Environment.

One participant suggested two unbiased citizens who live near the plant could be trained and certified to estimate stack opacity, which is the only exterior indicator of air pollution control equipment either being bypassed or malfunctioning. Frequent violations of opacity limits could result in tests for all regulated pollutants being done more frequently.

Ambient Air Monitoring

The Corporation proposed to conduct ambient air monitoring for formaldehyde, total suspended particulates, and PM₁₀ in the surrounding environment. A participant suggested sulfur dioxide, carbon monoxide, volatile organic compounds, benzene and oxides of nitrogen also be monitored. It was proposed that background levels would be established in tests performed before the plant becomes operational, and tests would continue once the plant was in operation, and test frequency and sites would be determined by Manitoba Environment.

It was suggested that the tests would also be useful to verify the air dispersion projections in the environmental impact statement.

Monitoring for impacts on vegetation: The Corporation said it would be prepared to cooperate with Manitoba Natural Resources, which had proposed that sample plots be used to gauge any adverse impacts on vegetation. Manitoba Environment said a licence could require small plots be maintained in order to compare impacts on vegetation. Some participants asked that one of the plots be established in the Duck Mountains.

Impacts on water: Manitoba Environment operates a water monitoring station on the Swan River and would review the parameters which are tested from that station. It could also take water samples from the Sinclair River.

The Corporation said that water from seven or eight wells would be monitored as a check against groundwater contamination. In the spring, runoff would also be collected from the plant site and tested, at least during the first year or two of plant operations.

Environmental Manager and Environmental Auditing

Participants asked the Corporation if it would hire an environmental manager and undertake environmental audits, similar to requirements laid out in the consent decree with the United States Environmental Protection Agency.

The Corporation said it would abide by similar conditions if required by Manitoba Environment.

Manitoba Environment said it would consider such clauses, although it noted that it had not in the past become involved in the hiring practices and organizational structure of licencees.

Community Health Study

Manitoba Health proposed a health study be undertaken as part of licensing requirements for Louisiana-Pacific. The study would provide a basis for comparing the health of residents before and after the plant became operational, as well as with other regional, provincial and national rates.

The Corporation was agreeable in principle to the study. However, the Corporation required time to review and possibly negotiated the estimated start-up cost of \$100,000 to \$200,000 and the on-going annual costs estimated at \$50,000 to \$100,000. Manitoba Health indicated it was also prepared to contribute resources to the study.

Manitoba Health recommended that a steering committee be established to refine and implement the study. Potential members could include health professionals, community representatives, First Nation representatives, Louisiana-Pacific, government departments, and health associations. The Corporation argued that the community representatives on the committee should be elected municipal officials. Some participants at the hearings favoured a broader cross section of community representatives, not restricted to elected officials.

As well, the Corporation was agreeable to a participant's request that the Corporation provide residents with lung tests similar to those provided to its employees, if those tests were not included in the study proposed by Manitoba Health.

3.5 DECOMMISSIONING

The Corporation said that, should the plant be closed, it would decommission the site to meet the standards established by the Canadian Council of Ministers of Environment. As part of any future decommissioning, tests would be performed on the soil and water to ensure proper disposal and remediation.

Participants felt the site should be restored to its original condition, a position rejected by the Corporation.

While participants said a decommissioning plan should have been available for review at the hearings, Manitoba Environment said a decommissioning plan would be a requirement of a licence.

3.6 ENFORCEMENT

Participants were concerned about Manitoba Environment's ability to enforce a licence, if one were issued. Those concerns included the Department's enforcement policies, resources (especially because of constraints on government budgets), and clarity and specificity of the licence. They were also concerned about the independence of emission monitoring, and that the Department does not have staff whose sole responsibility is to investigate and undertake prosecutions.

The Department set out its enforcement policy, which is intended to achieve compliance with environmental legislation. An environmental officer's actions may range from a warning to formal prosecutions to a shutdown of a plant, depending on what is considered appropriate to the circumstances.

Participants also suggested the Corporation be required to provide monitoring equipment and training for the Department. The Department said it is still evaluating what equipment and training would be required and would be committed to obtaining those resources. The Department could contract for some services.

Monitoring would be performed by both the Corporation and the Department.

In some cases, the Corporation would be responsible for its own monitoring, for which it could contract with companies with monitoring expertise. In these cases, the Department would review the Corporation's methodology and audit the results. The Corporation and the Environmental Protection Agency noted that a

similar practice is followed in the United States, with the Corporation requiring the approval of the environmental regulator for the experts hired to perform specialized tests. Participants were concerned about the perceived independence of companies chosen and paid by the Corporation.

The Department said it would also perform its own pre-arranged and unannounced tests. The Department said that, in some cases, complicated tests need to be arranged in advance, in part to ensure the plant is operating at full capacity.

Participants also cited previous licences which had been issued by the Department which had proven difficult to enforce. As a result, participants said the licence must be clear and specific with clauses and standards which are enforceable.

Bonds and Waivers

A participant suggested that Manitoba Environment should require the Corporation to post a bond. The participant felt such a guarantee could be used in a number of contingencies, which would include: payment for impacts from accidents, replacement of broken equipment if the Corporation refused to do so itself, and assurance of the availability of financial resources if the plant were decommissioned. Another participant suggested that the Corporation should be required to sign a waiver which would provide a recourse for people who may be harmed by emissions from the plant, even if those emissions were within limits specified in an environmental licence.

The Corporation said that an \$80 million investment in itself is a commitment to operate properly. The Corporation also said it was prepared to install pollution control equipment which is more sophisticated and costly than that required by competitors, and cited the addition of the regenerative thermal oxidizers which would cost approximately one million dollars per year to operate as an example of that commitment. The Corporation said it would be at a competitive disadvantage because of these requirements, and the posting of a bond (which none of its competitors is required to post) would add to that disadvantage.

Only one Corporation to date has been required to post a performance bond as part of an environmental licence in Manitoba. Louisiana-Pacific said that, if security for environmental damage is to be required, this stipulation should be applied to all companies and not used as a barrier to new industrial development.

3.7 ISSUES RELATED TO LICENSING

Along with issues related to the construction and operation of the proposed plant, participants at the hearings raised a number of related issues.

Public Participation

Participants endorsed the idea of a local liaison committee. Manitoba Environment said the committee could be used to provide general advice to the Corporation and to exchange information, such as monitoring data and applications for licence amendments, between the community and Corporation.

Licence Phasing

The Corporation said that it is normal practice for regulators to determine the final, allowable emission rates (which are expected to be below those projected in the air dispersion modelling) once a new plant is operating.

Some participants contended that the Corporation should use its resources and experience from existing plants to project realistic emission levels which could be written into a licence before it is issued. The participants said that the worst-case scenario used for the modelling exercise should not be the basis for a licence.

The Corporation indicated that realistic emission rates could not be extrapolated from existing plants, since many variables would determine the final efficiencies of the equipment and emissions from the plant.

The Corporation also wanted to retain the option to produce specialized products, such as an exterior siding which uses more MDI than the boards which would normally be produced from the plant. The Corporation felt that a licence should reflect that flexibility, rather than requiring an amendment each time the production formula changes.

A licence which correlated emission rates to different levels of production was one option suggested at the hearings.

Another participant suggested the licence should set out acceptable levels of risks and the acceptable levels of exposure, accounting for existing background levels, for each hazardous material.

Harmonization of Control Requirements

Some participants said Manitoba Environment should require the Corporation to meet the environmental requirements of the United States.

The Department said it was prepared to consider requirements set out in the consent decree between the Corporation and the Environmental Protection Agency. At the same time, the Department said its requirements are based on practices, including emissions levels, that are safe for people's health and the environment; the Corporation would then be required to meet those levels, using various pollution control technologies if necessary.

Corporation Performance

Along with questions and information about the proposed plant, participants in the hearings expressed concerns about the Corporation's environmental record at its existing plants. The Corporation and other participants in the hearings defended the Corporation and its proposal for a plant at Minitonas.

In reviewing the Corporation's past record, some participants emphasized the consent decree between Louisiana-Pacific and the Environmental Protection Agency in 1993. The agreement resulted in the Corporation paying penalties and upgrading pollution control equipment and practices at 11 plants.

Some participants also brought forward a report from the Council on Economic Priorities, an independent environmental organization. Among other information cited by participants were workplace and environmental infractions in British Columbia and the United States and media reports concerning former employees and communities where the Corporation already has oriented strand board plants.

The Corporation said that it had entered into the consent decree in the best interests of the Corporation and its shareholders. The Corporation said it is also endeavouring to cooperate with the Council on Economic Priorities and, in response to the report on fines for occupational safety, noted they were mostly of a minor nature and suggested they would be consistent with the industry average. The Corporation said it did not appreciate being depicted as a bad Corporation, adding that it had met all its undertakings during the Manitoba hearings. The Corporation, which said it had been attracted to Manitoba because of the supply of

wood, indicated it was prepared to meet the Department's environmental requirements, including those adapted from the consent decree.

The Corporation was also supported by other participants in the hearings. A number of people had visited the Corporation's plant at Sagola, Michigan, as part of a Corporation-sponsored tour and were impressed by how clean it was. Some participants had also talked with residents of Sagola and Dawson Creek and felt reassured about Louisiana-Pacific.

Many participants, including the Reeves and Mayors of the Rural Municipality and Village of Minitonas and Town and Rural Municipality of Swan River, spoke of the important economic benefits which the plant would provide to the area. Petitions supporting the proposal were also presented.

3.8 ISSUES RELATED TO THE HEARING PROCESS

During the course of the hearings, the Panel was asked to deal with procedural motions put forward by participants.

Legal counsel for the Swampy Cree Tribal Council and Manitoba Keewatinowi Okimakanak opened the hearings by asking the Panel to postpone the hearings for 60 days and to include a forest management plan as part of the Panel's deliberations. The motions were supported by two other organizations, the Concerned Citizens of the Valley and the Future Forest Alliance. The Panel declined the motions.

The groups raising the motions chose to appeal to the Court of Queen's Bench. The first court appearance was on June 10, at which time a court date to hear arguments was set for June 23 and an agreement was reached enabling the Panel to continue with hearings scheduled for June 13 to 16. Following legal arguments on June 23 and 24, the Panel was allowed to continue the hearings while awaiting the Court's decision.

During the course of the hearings, legal counsel for the Concerned Citizens of the Valley and the Future Forest Alliance advanced the idea of a telephone hook-up with an expert from Colorado, and as a result, the Panel agreed to allow expert witnesses to provide information by conference calls. Technicians arranged for the testimony to be heard by everyone at the hearing, and questions from the Panel and

participants in the hearings were posed to the experts. The Panel also facilitated a call to the Environmental Protection Agency, which was requested by the Concerned Citizens of the Valley and the Future Forest Alliance, by assuring the Environmental Protection Agency that the proceedings were bona fide hearings of a Manitoba Government commission. As well, the Panel accommodated a telephone presentation from the Manitoba Lung Association in Winnipeg.

The Panel declined requests from the Concerned Citizens of the Valley and Future Forest Alliance for telephone presentations from witnesses not deemed to be expert. The groups chose to appeal to the Court of Queen's Bench, and this motion was also heard at the same time as the other motions.

The Honourable Mr. Justice A.A. Hirschfield delivered his written decision on July 18. He denied the motions. A copy of Mr. Justice Hirshfield's decision (without attachments) is re-printed as Appendix D.

Need for More Information

Public participants argued that more information was required about the potential risks associated with the plant, options which could be used for controlling those risks, and Manitoba Environment's detailed plans for enforcing a possible licence. The participants said the Panel should receive this information and the public should have a chance to discuss it at the hearings. It was suggested that the additional information could result in additional conditions being attached to a possible licence.

Manitoba Environment said clarification was required on a number of points not discussed in the environmental impact statement. However, the Department said the environmental impact statement was adequate to proceed to the hearings.

The Panel acknowledged that some information was not included in the environmental impact statement, but noted that it is normal for new information to be brought before the hearings. The Panel believed that the hearings were providing for a good discussion of the issues and that the Panel was receiving the information required to arrive at its recommendations.

Some participants, in arguing that more time should be devoted to gathering additional information, said that if the plant was viable today, it would also be

viable when the information was made available; if it was no longer viable at that time, the Corporation would be saved from making a bad investment.

The Corporation indicated that timing would be important in determining if the plant is to be built at Minitonas. Plants which could increase North American production of oriented strand board by over 50 percent could be built and on-stream within the next three years. With that much additional capacity, the Corporation which is able to get on-stream first and capture market share would have an advantage over its competitors.

Location of Hearings

Participants asked the Panel to hold hearings in Winnipeg and, possibly, other communities, as well as in Swan River

The Panel declined. The proposed oriented strand is a site-specific project, and Swan River had been chosen as the site for the hearings so that the people most affected by the project would be best able to participate and listen to all of the proceedings.

4. DISCUSSION

The Panel was impressed with the level of public interest and participation in the hearings for the proposed Louisiana-Pacific oriented strand board plant. People as individuals and as representative of various organizations made over 90 presentations to the hearings, a good number more asked questions, and hundreds of others listened to the discussion. During the first two weeks of the hearings, each session was attended by two to three hundred people, and, on several occasions, the Community Hall in Swan River was full to capacity.

Many people making presentations at the hearings spoke about the important economic boost the project would bring to the Swan River Valley. Overall, the population of the Valley has dropped by 12 percent in the past two decades. Residents hoped that Louisiana-Pacific, with 160 people employed in the plant and another 300 employed to harvest wood, would help reverse that trend. The Panel was particularly struck by the number of young people who attended the sessions. These young people spoke about their dreams of staying in the Valley or returning after receiving post-secondary education elsewhere. However, without the opportunities provided by Louisiana-Pacific, they felt that they would be forced to leave the area in order to pursue their careers.

But, as much as the people of the Valley wanted the jobs and other economic spin-offs related to the proposed project, they were also well aware there could be impacts on the environment. A number of people at the hearings were very well informed about these potential impacts and offered the Panel well prepared, insightful presentations. Many others were attending the hearings to learn about the environmental impacts. For the most part, residents were prepared to place their trust for their well being and the well being of their families in the hands of the government, believing that regulations and restrictions would be imposed on Louisiana-Pacific to ensure minimal health and environmental impacts from the oriented strand board plant.

One participant summed up the hearings when he said, "Indeed, we're talking about our children's future." He could have been speaking about the importance of economic benefits or the environmental impacts related to the project — or he may well have been speaking of both.

In reviewing the information brought before the hearings, the Panel concludes that an oriented strand board plant can be developed which would meet both the economic and environmental objectives of Manitobans and which is consistent with the principles of sustainable development.

4.1 PROCESS ISSUES

Some participants at the hearings were concerned that they had been allowed little opportunity to participate in the early stages of the environmental review and that they required more time to prepare for the hearings. Manitoba Environment, in its efforts to facilitate the environmental review, provided information and guidance to the Corporation before it had officially applied for an environmental licence. The Department's cooperative approach is commendable. It is also important that the public's involvement in the process be equally facilitated.

Normally, once a developer files an application for an environmental licence, the public is given 30 or more days notice in order to review the documents and offer comments about the environmental impact statement and/or the project itself. It is then that a decision is made on whether or not the Minister will ask the Clean Environment Commission to hold public hearings (for which the Commission provides an additional 30 days notice). In the case of the Louisiana-Pacific project, the decision to call for public hearings was made immediately upon receipt by Manitoba Environment of the licence application.

Had the Corporation filed its application for its environmental licence soon after it announced the project in the winter, the Panel believes many of the process-related issues could have been resolved or avoided. Public participation in the environmental review could have been enhanced with their input into the environmental impact statement, and more time would have been available for the public to review the documentation and to prepare for the hearings.

Environmental reviews are important planning tools. The reviews help business, government and the public identify and resolve potential problems before they occur and, as a result, better projects are developed to the benefit of both investors and the public. The Panel found the public's presentations to be extremely valuable and, while the public was put under added pressure in preparing its

presentations, the information required by the Panel did come out in the discussion and documents at the hearings. As identified earlier in this report, the Corporation also announced a significant improvement in its plans for the project. While the Corporation cited new information from its supplier as the basis for adding regenerative thermal oxidizers to its proposal, the participants in the hearings can be encouraged with their contribution toward the Corporation's decision.

While environmental reviews do require a certain amount time, it is time well invested. If managed properly, the amount of time required for a review under the Manitoba Environment Act is very reasonable. Government agencies, in embracing the principles of sustainable development, should include environmental assessments as a valuable part of a project's planning and development, and investors should be given every encouragement to benefit from the shared information and viewpoints which result.

4.2 PROJECT ISSUES

During the hearings, the public was particularly concerned with air pollutants which would be emitted from the plant. As well, there was concern about yard operations, including surface runoff, fugitive emissions, ash disposal, traffic, and noise.

Air Pollutants

Louisiana-Pacific's commitment during the hearings to install regenerative thermal oxidizers dispelled many of the public's primary concerns about the proposed plant. But even with the regenerative thermal oxidizers, there are a number of issues which deserve comment.

Some people would prefer to have no extra emissions added to the air they breathe. For people who may receive no direct benefit from the plant, any added risk to their health would seem unfair. But in a complex, inter-related industrialized society, we are regularly exposed to activities which represent more benefit to others than we may perceive for ourselves.

Air quality guidelines represent a rational approach to measuring the impact of air emissions. To gauge the impact of the proposed plant on the health of people and the environment, projected emissions were compared to air quality guidelines for Manitoba. For a number of potential emissions, however, Manitoba Environment does not have guidelines, and, as a result, the Corporation borrowed from other jurisdictions. In other cases, extrapolations from workplace criteria were attempted, which is even less satisfactory since the criteria for ambient air quality are much more stringent than workplace air quality.

According to the evidence presented at the hearings, electrostatic precipitators would control pollutants to the degree necessary to meet air quality guidelines. The addition of the regenerative thermal oxidization technology would enhance the quality of the emissions even further.

Oxides of nitrogen are the pollutant which would not be well controlled with the proposed control technology. The United States Environmental Protection Agency indicated that controls would be required of a plant emitting the volumes of oxides of nitrogen projected for the proposed Minitonas plant. The Panel believes similar considerations should be given for a plant being proposed for Manitoba, even though the oxides of nitrogen fall within provincial air quality guidelines.

The Panel concluded that residents of the Swan River Valley could be satisfied that, if the proposed plant were operating at full efficiency, the projected air emissions would fall within established air quality guidelines.

Under upset conditions, however, the plant would have the potential to emit air pollutants which could exceed air quality guidelines. Therefore, it is important that the plant be restricted from operating under those upset conditions. Except to protect the safety of the workers and the plant, bypasses of pollution control equipment should not be allowed. That lone exception would be for the thermal-oil heating system, which provides heat for the plant building itself. In such cases, the thermal-oil heater could be switched to a fossil fuel which produces fewer emissions than bark fuel produces. Since the fossil fuels would represent an added operating cost to the Corporation, they should be encouraged to keep the pollution control equipment operating well.

While endorsing the pollution-control equipment identified in the environmental impact study and at the hearings, the Panel is also cognizant that technology is

always changing and improving. There is optimism that the regenerative thermal oxidizers would function well. The Minitonas plant could be designed and built with wet electrostatic precipitator capable of removing much of the suspended particulate matter which has proven so troublesome for regenerative thermal oxidizers at the other, existing plants. The Panel believes the Corporation and regulators should also remain open to incorporating new pollution-control technologies as they are developed and proven.

The Panel also supports a review by the Corporation and Department of other pollution-control options suggested at the hearings.

Just as technology is evolving, so is knowledge of various elements. For example, Canadian air quality objectives are being developed for PM₁₀, the category which poses the greatest health concern among suspended particulate matter. A national objective established in the future should be applied to any environmental licence issued. Similarly, there are no standards related to additive or synergistic effects; however, a literature search and expert information on the issue could still be sought .

Odours and noise can also be problems related to large manufacturing operations, especially when they are adjacent to residential neighborhoods. However, because the odours and noise expected from the proposed plant would fall within provincial guidelines and because the nearest residents are a kilometer away, the Panel agreed that no significant problems would be expected.

Other Pollutants

Besides the air emissions, a number of other pollutants would be created which require attention. For the most part, these would be in the yard operation. As with the air emissions, the objective would be to control the pollutants to eliminate or reasonably reduce the hazards which they otherwise would pose.

The issue of phenols in wood leachate has recently come to light. Liners, whether they are clay or synthetic, should prevent contamination of the ground water. As a back-up, natural controls would also reduce hazards posed by surface runoff since phenols break down quickly, the ground acts as a natural filter, and bacteria in the ground feed on phenols. Wells, which should be representative of all

three aquifer layers in the area, would also be used to monitor for groundwater pollution.

Fugitive emissions from excess bark and wood fines could also become troublesome. To guard against such a problem, the Panel believes the bark and fines should be transported in an enclosed system. It would be desirable if a market could be found for the excess bark and wood fines, but if they have to be incinerated, appropriate technologies are proposed which would control air emissions.

Ash should also be handled in an enclosed manner similar to the excess bark and wood fines. As with the excess bark and wood fines, it would be desirable if a use could be found for the ash. But, since this is unlikely, the ash should be tested for any potentially dangerous elements and disposed of according to provincial regulations.

With 365 to 565 vehicles traveling to the plant every day, plus equipment moving in the yard, dust could also become a problem. However, traffic areas at the plant would also be covered with asphalt, and as with odours, the problem should be lessened because of the distance to the nearest residence. The Panel believes that appropriate additional measures could be taken if dust does become a problem.

Provincial regulations exist which would address a number of other issues. The Gasoline and Associated Products Regulation would cover the storage and handling of petroleum products, the Dangerous Goods Handling and Transportation Act would cover the transportation, storage and handling of specified chemicals and the transportation of waste oil. The Workplace Health and Safety Act would address employee safety at the plant, and the Manitoba Building Code and Manitoba Fire Code include construction and equipment requirements for employees' safety. A licence would have to be obtained under the Water Rights Act to utilize groundwater.

Monitoring

If the plant is to proceed, independent monitoring would be important to ensure the plant operates within its licence. As such, a rigorous schedule for collecting and analyzing and for sharing results with the public should be established.

Monitoring would be required to determine the volume of the emissions, as well as impacts on ambient air quality, plants, and water. In order to make future comparisons with current conditions, the Panel believes efforts should begin immediately to establish a baseline of data. The information gathered in the baseline study and on-going monitoring could be made available to local people through municipal offices and a community liaison committee made up of a cross section of local citizens.

Manitoba Health's proposed health study could also serve a valuable service by providing a basis to compare people's health before and during the operation of a plant. The study could prove useful in the future to resolve health-related issues which could arise and to provide direction for health-care givers and the Corporation. In fairness to the Corporation, the Panel believes the study should be focused on potential impacts from the plant.

Other

Even though a plant may be well designed, constructed and operated, there is always the possibility of a natural or man-caused emergency. Good management and maintenance practices are the best insurance against such incidents.

One crew per week would perform preventative maintenance. At the same time, an emergency response plan, developed in conjunction with the local mutual aid district, should be developed. The Panel also believes it would be in the Corporation's interest to ensure that specialized training and equipment be available to the local emergency and first-response Departments.

5. CONCLUSIONS

The Panel has concluded that an oriented strand board plant can be developed in the Rural Municipality of Minitonas which would meet both the economic and environmental objectives of Manitobans and which is consistent with the principles of sustainable development. The Panel further concludes that a number of conditions to ensure the safe, on-going operation of the plant should be contained in an environmental licence covering the construction and operation of the plant.

1. TERMS OF REFERENCE

The Minister, in his letter to the Commission, set out *Terms of Reference* to be addressed in the public review and recommendations. The Panel would like to provide a response to each of the issues (printed in italics) identified in the *Terms of Reference*:

- *The potential environmental impacts on the emissions and discharges from the plant on the biophysical environment, human health, and present and currently-planned land and water uses, including terrestrial and aquatic ecosystems.*

The Panel concludes that, should the project proceed in accordance with the evidence presented at the hearings, emissions and discharges would be within established limits and acceptable risks.

- *Socio-economic impacts directly related to the environmental impacts of the plant.*

The Panel concludes that, if the plant were operated consistent with the evidence presented at the hearings, environmental impacts would be minimal, and as such, there would be negligible adverse socio-economic impacts related to the environmental impacts.

- *Measures proposed to mitigate any adverse impacts resulting from the plant's operation and, where appropriate, to manage any residual adverse effects.*

The Panel concludes that potential adverse impacts could be mitigated and managed satisfactorily. The proposed controls for air emissions from the plant

would be state of the art, and other aspects of the plant would be designed to control possible problems at source.

- *Proposed plans and procedures for the transportation, handling, and disposal of dangerous goods and hazardous materials, and for response to environmental accidents and emergencies.*

The Panel concludes that existing regulations would provide the basis for controlling the transportation, handling and disposal of dangerous goods and hazardous materials, and that a plan to respond to environmental accidents and emergencies should be a requirement of an environmental licence.

- *Any proposed mechanisms for monitoring environmental impacts of the plant, once constructed, and any research that may be considered necessary.*

The Panel concludes that a monitoring program related to emissions, ambient air quality, and impacts on land, water and vegetation should be a requirement of an environmental licence, and that work to collect baseline information should begin immediately. The Panel also concludes that a health study which would gather baseline information on residents' health in order to compare it to people's health after a plant became operational would also be beneficial .

6. OBSERVATIONS

Before concluding the report with the recommendations as requested by the Minister, the Panel would like to offer the following observations:

- Participants in the public hearings emphasized the importance of ensuring the Corporation comply with an environmental licence and expressed concern that Manitoba Environment may lack the resources to enforce the conditions of a licence which may be issued for the plant.

The Panel observes that Manitoba Environment must be provided with adequate monitoring and regulatory resources to ensure the effective management and enforcement of any licence and regulations applicable to the plant.

- Manitoba Environment has developed a schedule of air quality objectives and guidelines for the preservation and protection of ambient air quality in Manitoba. However, the schedule is limited in the number of pollutants considered. Therefore, objectives and guidelines for pollutants not included in the schedule must be considered on an ad hoc basis in response to individual project proposals. Since the schedule helps investors to plan their projects and assists regulators and the public in assessing those projects, it would be important to update the schedule and to expand the list of pollutants.

The Panel observes that, based on current knowledge of the environmental and health impacts of air pollutants, Manitoba should develop a more comprehensive schedule of air quality objectives and guidelines, including primary pollutants which would be emitted from the proposed oriented strand board plant.

- During the course of the public hearings, the evolving awareness of the problem posed by phenols in leachate from wood yards was brought to the Commission's attention.

The Panel observes that the possibility of leachate problems from other log operations in the province should be reviewed.

- Participants raised the possibility of requiring bonds to be posted by companies receiving environmental licences. Manitoba Environment indicated it was prepared to consider the suggestion, but has limited experience and no policy on the use of bonds.

The Panel observes that the Department should review the merits of having companies post performance bonds as a condition for receiving environmental licences.

- The public hearings were intended to discuss the potential impacts of the proposed oriented strand board plant. At the same time, the public also expressed a great deal of interest in forestry issues related to the plant. While Manitoba Natural Resources has provided assurances that sufficient wood resources are available to support the on-going operation of the proposed plant, the public will want to have the opportunity to be involved in a full review of a proposed forest management plan.

The Panel observes that a comprehensive public review of the forest management plan should be undertaken to ensure the resource is managed in a sustainable fashion.

- During the course of the hearings, concerns were expressed about the lack of opportunity for the public to be involved in the initial stages of the environmental review and about the limited time to prepare for the hearings. A fundamental principle of sustainable development is public participation. The public has a great interest in the condition and protection of its environment; equally so, the public has a great interest in the economic benefits which may incur from projects proposed by investors in our province. The public has contributed significantly to the Panel in its role of making recommendations which ensure that projects are developed in a manner consistent with the principles of sustainable development. It is vital that the public's interest and involvement in environmental reviews be supported and facilitated in the future.

Environmental reviews serve as an important planning tool, helping business, government and the public to identify and resolve potential problems before they occur, and as a result, better projects are developed to the benefit of both investors and the public. If the greatest benefit from the

environmental review is to be realized, everyone must be made aware of the rationale and mechanics of the process to ensure it is undertaken in a fair and efficient manner.

The Panel observes that government agencies whose task is to encourage and facilitate development should ensure that developers applying for an environmental licence and appearing before the Clean Environment Commission understand the importance, scope and expectations of the public hearing process.

The Panel observes that the environmental review process should ensure that sufficient time is available for public review and involvement prior to a hearing being called.

7.

RECOMMENDATIONS

The Panel now makes the following recommendations respecting the proposal of Louisiana-Pacific Corporation:

1. An Environment Act licence should be issued to Louisiana-Pacific Corporation for the construction and operation of an oriented strand board plant on the E^{1/2} of 16-36-25 WPM of the Rural Municipality of Minitonas, and the licence shall include the following terms and conditions.
2. The licence shall require the facility to be developed in accordance with the Proposal and supporting Environmental Impact Statement, filed by the Corporation with Manitoba Environment on May 9, 1994, and the Notice of Alteration of the Proposal, filed June 27, 1994.
3. The licence shall be issued in two phases. The first phase shall cover the period required for the construction of the facility and testing of the pollution control equipment and procedures, and the second phase of the licence shall be for the on-going operation of the plant.
4. The licence shall include a significant level of detail so that it can be easily understood, implemented, and enforced.
5. Specific pollution control equipment shall be identified in the licence.
6. The equipment to be installed in the plant shall include pollution control equipment as identified in the Environmental Impact Statement and the Notice of Alteration. This equipment shall include wet electrostatic precipitators and regenerative thermal oxidizers on the dryers, regenerative thermal oxidizers on the press, either an electrified filter bed or electrostatic precipitator on the thermal-oil heater, and either an electrified filter bed or an electrostatic precipitator on the incinerator. In addition, low NO_x burners or alternative technologies shall be used to control emissions of oxides of nitrogen from the plant.
7. The stack height(s) which will best ensure dispersion of pollutants shall be specified in the licence.
8. Where the most appropriate pollution control equipment to be installed has not yet been determined or should the proponent wish to install an alternative

technology, written approval shall first be obtained from Manitoba Environment. Any changes or alterations to the manufacturing and/or pollution control equipment, once the licence has been issued, are to be approved by Manitoba Environment prior to any changes being undertaken.

9. The level of control of pollutants, including particulate matter, volatile organic compounds and oxides of nitrogen, shall be specified in the licence.
10. A detailed schedule of the operating parameters, monitoring requirements, and reporting protocols shall be outlined in the licence for all pollution control equipment, the thermal-oil heaters, incinerators, dryers and the press. In addition, the licence shall specify the records that are to be maintained respecting the percentage and volume of hardwood/softwood to be used in the process, the wood fuel utilized, and the type and volume of finished product produced at the plant.
11. Compliance monitoring tests for the operation of the plant shall be conducted while the plant is operating at 100 percent capacity. If testing occurs while the plant is operating below 100 percent capacity, the plant operation shall be restricted to the rate of operation not exceeding that at which the tests were conducted.
12. Pollution control equipment shall not be by-passed during the operation of the plant, except under emergency conditions as specified in the licence.
13. A detailed inspection and maintenance plan for emission control and monitoring equipment shall be approved by Manitoba Environment prior to the granting of an operational licence. The plan shall be prepared to prevent, detect, and correct malfunctions or equipment failures which may cause emission limits to be violated. Changes to the plan shall require written approval of Manitoba Environment.
14. An emergency and contingency plan shall be prepared to deal with fire(s), power failure(s), spill(s), accident(s), injury(ies), and shutdown(s) inside the plant and with fire(s), high wind(s), flood(s) and chemical spill(s) outside the plant, and complete records of all such events shall be maintained. This plan shall be approved by Manitoba Environment prior to a licence for the on-going operation of the plant being issued.

15. All plant upset, fire, emergency, equipment failure and shutdowns shall be reported to Manitoba Environment within the time and in a fashion specified in the licence.
16. Baseline ambient air, water, soil, flora and fauna monitoring shall be taken to provide baseline data prior to the construction of the plant.
17. A schedule shall also be established to ensure ongoing monitoring of water, soil, flora and fauna.
18. Periodic and continuous emission monitoring reporting requirements for the plant shall be specified in the licence.
19. The equipment and methods for monitoring of stack emissions shall be specified in the licence
20. Groundwater monitoring wells shall be installed and operated according to the requirements identified by Manitoba Environment.
21. Manitoba Environment shall prescribe a reporting procedure for the environmental monitoring program and ensure public access to the results.
22. The plant access roads, plant compound and log yard shall be constructed and maintained in a manner which minimizes dust.
23. The log holding yard and leachate pond shall be sized to withstand a 1-in-100 year flood.
24. All ash produced by the plant shall be contained. The licence shall specify the procedures to be followed with respect to ash collection, transportation, storage and disposal.
25. Bark and wood fines produced by the plant shall be collected, stored and disposed of in a manner as specified in the licence.
26. Grit and debris from the steam chest and log washer shall be disposed of in a manner as specified in the licence .
27. A health study consistent with the direction of a plan suggested at the hearings by Manitoba Health shall be undertaken to provide ongoing health monitoring of workers and residents of the area. Community involvement in the health study shall be consistent with Manitoba Health's proposal.

28. A community liaison committee reflecting a reasonable balance of the various residents of the Swan River Valley shall be established. This committee would facilitate the exchange of information between residents of the Swan River Valley and the Corporation on matters related to the operation of the facility and its impact upon the Valley residents.
29. A plant decommissioning plan shall be required prior to Manitoba Environment issuing a licence for the on-going operation of the plant.

APPENDIX A

Terms of Reference

for

Clean Environment Commission Hearings

on the proposed

Louisiana-Pacific Corporation Oriented Strand Board Plant

Rural Municipality of Minitonas

Background

On May 5, 1994, the Louisiana-Pacific Corporation (the Company) submitted an Environment Act Proposal accompanied by an Environmental Impact Statement (EIS) for the construction of an oriented strand board (OSB) plant to be located on the east half of section 16, township 36, range 25 west of the principle meridian near the village of Minitonas in the Rural Municipality of Minitonas.

The proposal is to manufacture oriented strand board from hardwood.

Mandate of the Hearings

The Clean Environment Commission shall conduct public hearings to consider the Oriented Strand Board Plant Proposal and to receive public concerns respecting the Proposal. Following the hearings, the Clean Environment Commission shall provide a report to the Minister of Environment pursuant to Section 7(3) of The Environment Act. The Commission may at any time request that the Minister of Environment review or clarify these Terms of Reference.

Scope of the Review

The Clean Environment Commission is to consider the Proposal and public concerns and provide a recommendation on:

- whether an Environment Act Licence should be issued respecting the Louisiana-Pacific Corporation Oriented Strand Board Plant Proposal;

Should the Commission recommend the issuance of a Licence, then appropriate recommendations should be included in the report respecting:

- the potential environmental impacts of the emissions and discharges from the Louisiana-Pacific Corporation Oriented Strand Board Plant Proposal on the following:
 - (i) biophysical environment;
 - (ii) human health;
 - (iii) present and currently planned land and water uses including terrestrial and aquatic ecosystems;during the construction, operation, maintenance and the final decommissioning of the proposed Louisiana-Pacific Corporation Oriented Strand Board Plant;
- the socio-economic impacts directly related to the environmental impacts of the Louisiana-Pacific Corporation Oriented Strand Board Plant Proposal;

(continued)

- the measures proposed to mitigate adverse impacts resulting from the Louisiana-Pacific Corporation Orientated Strand Board Plant Proposal and, where appropriate, to manage any residual adverse effects;
- the proposed plans and procedures for the transportation, handling and disposal of dangerous goods and hazardous materials, and for response to environmental accidents and emergencies; and
- any proposed mechanisms for monitoring of the environmental impacts of the Louisiana-Pacific Corporation Orientated Strand Board Plant Proposal once constructed and any subsequent research that may be considered necessary.
- The Clean Environment Commission recommendations shall incorporate, consider and directly reflect, where appropriate, the Principles of Sustainable Development as contained in Towards a Sustainable Development Strategy for Manitobans.

APPENDIX B

LIST OF PARTICIPANTS

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Manitoba Lung Association

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Neely, Kevin
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Palaniuk, Wilf
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Van Dusen, Jean
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Walsh, Zack
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Wild, Barry
(private representation)

Wowchuk, Keith
(private representation)

Wowchuk, Roseann
MLA Swan River Constituency

APPENDIX C

LIST OF EXHIBITS

1. Letter, dated May 6, 1994, (with attachment - *Terms of Reference for Clean Environment Commission Hearings on the Proposed Louisiana-Pacific Corporation Oriented Strand Board Plant, Rural Municipality of Minitonas*), from Hon. J. Glen Cummings, Minister of Environment, Province of Manitoba, to Dale Stewart, Chairman, Manitoba Clean Environment Commission.
2. (a) "Principles of Administrative Law", 1985 (pages 52-53 & 109-115). David Phillip Jones and Anne S. de Villars. Submitted by W. G. Ryall, Swampy Cree Tribal Council and Manitoba Keewatinowi Okimakanak Inc.

(b) Excerpt from the case of Kenneth S. Bell and the Ontario Human Rights Commission and Carl McKay (pages 756-757), 1971 Supreme Court Reports.". Submitted by W. G. Ryall, Swampy Cree Tribal Council and Manitoba Keewatinowi Okimakanak Inc.

(c) Excerpt from the case of Re McKay and Minister of Municipal Affairs, (pages 627-628), "Dominion Law Reports," 3rd Edition. Submitted by W. G. Ryall, Swampy Cree Tribal Council and Manitoba Keewatinowi Okimakanak Inc.

(d) "Administrative Law: A Treatise", Second Edition, Vol. 4 (pages 186-188 & 205-206). Rene Dussault and Louis Borgeat. Carswell, 1990. Submitted by W. G. Ryall, Swampy Cree Tribal Council and Manitoba Keewatinowi Okimakanak Inc.

(e) Excerpt from the case of Parkhill Bedding & Furniture Ltd., v International Molders and Foundry Workers Union of North America, Local 174 and Manitoba Labour Board, (pages 589-590), "26 Dominion Law Reports," 2nd Edition. Submitted by W. G. Ryall, Swampy Cree Tribal Council and Manitoba Keewatinowi Okimakanak Inc.
3. Opening Submission to the Clean Environment Commission on The Proposal Filed by Louisiana-Pacific Corporation for the Oriented Strand Board Plant - Minitonas, Pursuant to the Environment Act. Submitted Doug Peterson, Manitoba Environment.
4. Environmental Impact Assessment Louisiana-Pacific Oriented Strand Board Plant, Minitonas, Manitoba, Volume 1 of 2. Sentar Consultants Ltd. Submitted by Ken Adam, Sentar Consultants Ltd. & Louisiana-Pacific Corporation.
5. Environmental Impact Assessment Louisiana-Pacific Oriented Strand Board Plant, Minitonas, Manitoba, Appendices Volume 2 of 2. Sentar Consultants Ltd. Submitted by Ken Adam, Sentar Consultants Ltd. & Louisiana-Pacific Corporation.
6. Louisiana-Pacific Corporation Proposed Swan River Valley OSB Plant. Clean Environment Commission Hearing, June 6, 1994 (Transparencies Guide). Submitted by Dan Dilworth, Louisiana-Pacific Corporation.

7. A Company Overview, Borden Packaging & Industrial Products - Canada. Presented before: The Manitoba Clean Environment Commission Swan River Public Hearing, June 6 - 9, 1994 Swan River, Manitoba. Bruce Scott and Dale Plante. Borden Packaging & Industrial Products - Canada. Submitted by Bruce Scott, Borden Packaging & Industrial Products - Canada
8. Borden Cascophen Phenolic Resins: A Health and Safety Perspective. Frank J. Hawk, Borden Inc. Submitted by Frank J. Hawk, Borden Inc.
9. Correspondence, dated June 3, 1994, from J. E. Reynolds & Associates to Brian Pannell, Levine, Levene, Tadman. Submitted by Brian Pannell, Concerned Citizens of the Valley/Future Forest Alliance.
10. Baseline and Follow-Up Health Status Study: Manitoba Health Position in response to Environmental Impact Assessment Louisiana-Pacific Oriented Strand Board Plant, Minitonas, Manitoba. John Guilfoyle and Jamie Blanchard. Submitted by John Guilfoyle, Manitoba Health.
11. Brief, "Louisiana-Pacific Corporation Orientation Strand Board Plant, Rural Municipality of Minitonas: File 3741.00", submitted by John D. Elias, Department of Community Health Sciences, University of Manitoba.
12. Brief, "Clean Environment Commission Re: Louisiana- Pacific Limited, June 1994", submitted by the Brent Fowler and Edward Hart, Rural Municipality of Minitonas.
13. Brief (with petition), untitled, submitted by Vaughn Behrmann.
14. Brief, untitled, submitted by Kelly Neely.
15. Brief, untitled, submitted by Marvin Montgomery, Parkland West Economic Development
16. Brief, "Submission by the Manitoba Naturalists Society to the Clean Environment Commission Regarding a Proposal by Louisiana-Pacific Canada Limited to Build an Oriented Strand Board Plant near Minitonas, Manitoba", submitted by Hugh Hornbeck.
17. Brief, untitled, submitted by Hugh Hornbeck.
18. Brief, untitled, submitted by Shawn Patterson, Greenpeace Canada.
19. Brief, "Presentation to the Manitoba Clean Environment Commission at a Public Hearing Held at the Swan River Legion Community Hall, Swan River, Manitoba June 6, 7, 8, and 9, 1994", submitted by Stan Anderson, The Town of Swan River.
20. Brief, "Presentation to the Manitoba Clean Environment Commission at a Public Hearing Held at the Swan River Legion Community Hall, Swan River, Manitoba June 6, 7, 8, and 9, 1994", submitted by Harry Showdra, The Town of Swan River.
21. Brief, untitled, submitted by Stan Anderson.
22. Brief, "Village of Minitonas Brief to Clean Environment Commission Re: Louisiana-Pacific Limited, June 1994", submitted by Brent Fowler and Edward Hart, Village of Minitonas.

23. Brief, untitled, submitted by J. Tycholes.
24. Manitoba State of the Environment Report 1992 (pages 20-21). Manitoba Environment. Submitted by Ken Adam, Sentar Consultants Ltd. & Louisiana-Pacific Corporation.
25. Correspondence, dated December 20, 1993, from Russell F. Lee, Source Receptor Analysis Branch, United States Environmental Protection Agency, to Scott Humphrey, Trinity Consultants Inc. Submitted by Jim Dixon, Sentar Consultants Ltd. & Louisiana-Pacific Corporation
26. Monitoring Summary, June 8, 1994. Submitted by Dan Dilworth, Louisiana-Pacific Corporation
27. Correspondence, dated March 21, 1991 from Cameron Eggleston, Waste Management Branch, Ministry of Environment, Province of British Columbia, to Dan Rose, Louisiana-Pacific Forest Products Ltd.. Submitted by Jim Heinemann, Louisiana-Pacific Corporation.
28. Correspondence, dated March 26, 1991, from Stan Groner, Louisiana-Pacific Forest Products Ltd. to Cameron Eggleston, Waste Management Branch, Ministry of Environment, Province of British Columbia. Submitted by Jim Heinemann, Louisiana-Pacific Corporation.
29. Correspondence, dated May 6, 1991 from Stan Groner, Louisiana-Pacific Forest Products Ltd. to Cameron Eggleston, Waste Management Branch, Ministry of Environment, Province of British Columbia. Submitted by Jim Heinemann, Louisiana-Pacific Corporation.
30. Brief, untitled, submitted by Eldon Paull.
31. Memorandum, "Conceptual Sizing of Runoff Retention Pond" (DRAFT), dated June 3, 1994, from Brian Bennett, to Neil van der Gugten. Submitted by Brian Pannell, Concerned Citizens of the Valley/Future Forest Alliance.
32. Consent Decree, United States of America v. Louisiana-Pacific Corporation and Kirby Forest Industries, Inc. Submitted by Brian Pannell, Concerned Citizens of the Valley/Future Forest Alliance.
33. Technical Report, dated March 15, 1994. H. B. Beyer,. Environmental Protection, Ministry of Environment, Lands and Parks (Province of British Columbia). Submitted by Brian Pannell, Concerned Citizens of the Valley/Future Forest Alliance.
34. Brief, "Presentation to the Environmental Review Panel on the Proposed Louisiana-Pacific OSB Plant for the Valley Area", submitted by Diane McGillivray, Northern Association of Community Councils.
35. Brief (with attachments), "Presentation to The Manitoba Clean Environment Commission on the Proposed Louisiana-Pacific Oriented Strand Board Plant for Minitonas, Manitoba, June 13, 1994", submitted by Harry Mesman, Manitoba Federation of Labour.
36. Brief, untitled, submitted by Wilf Palaniuk.

37. Brief, untitled, submitted by Wilf Palaniuk, Abitibi-Price Inc.
38. Brief, untitled, submitted by Bernice Palaniuk.
39. Brief, untitled, submitted by Caroline Skrypetz.
40. Brief, untitled, submitted by Simon Wiepjes.
41. Brief, untitled, submitted by John Hrapstead, Swan Valley Wood Haulers Association.
42. Brief, untitled, submitted by Harold Holland
43. Brief, untitled, submitted by Alice Allen
44. Brief, untitled, submitted by R. Leach, Swan Valley Veterinary Clinic.
45. Brief, untitled, submitted by Roy Taylor
46. Brief (with *petition*), untitled, submitted by George Rose.
47. Brief, untitled, submitted by George Rose.
48. Brief (with attachment), untitled, submitted by Glen W. McKenzie
49. Brief, untitled, submitted by Twila Makuch.
50. Brief, untitled, submitted by Kathy Holness.
51. Brief (with attachments), untitled, submitted by Kevin Neely, Swan River Chamber of Commerce.
52. Brief, untitled, submitted by Sherry Martin.
53. Brief, untitled, submitted by Keith Behrmann
54. Brief, untitled, submitted by Tim Rausch, TimRick Welding & Machine.
55. Brief, untitled, submitted by Steve Ramsay.
56. Brief, untitled, submitted by Fred Betcher.
57. Brief (with attachments), untitled, submitted by Joseph Eichler.
58. Brief, "Manitoba Clean Environment Commission Louisiana-Pacific Oriented Strand Board Plant, Minitonas, Manitoba", submitted by Colleen and Garry Eisner.
59. Brief, untitled, submitted by John Caruk.
60. Brief (with attachments), untitled, submitted by Rick Wowchuk.
61. Brief, untitled, submitted by Reid D. Minish.

62. Brief, untitled, submitted by Pat Miles and Allan Kraut, Manitoba Lung Association.
63. Brief, untitled, submitted by James Day.
64. Louisiana-Pacific: A Report on the Company's Environmental Policies and Practices. The Council on Economic Priorities Corporate Environmental Data Clearinghouse, May, 1992. Submitted by Brian Pannell, Concerned Citizens of the Valley/Future Forest Alliance.
65. "Research Report", November/December 1993 (pages 1- 7). Council on Economic Priorities. Submitted by Brian Pannell, Concerned Citizens of the Valley/Future Forest Alliance.
66. Brief, "Presentation to the Environmental Review Panel for the Proposed OSB Plant for the Swan River Valley, June 1994, submitted by Sonny Klyne, Camperville Community Council.
67. Brief (with attachments), untitled, submitted by Ken Sigurdson, Concerned Citizens of the Valley.
68. Brief, untitled, submitted by Augusta Cocks.
69. Brief, "Presentation to the Manitoba Clean Environment Commission at a Public Hearing Held at the Swan River Legion Community Hall, Swan River, Manitoba June 6, 7, 8, and 9, 1994", submitted by Jud Scales, Swan Valley Economic Development.
70. Brief, untitled, submitted by Perry LeBlanc.
71. Brief (with *petition*), untitled, submitted by Chris Leach, Environmental Youth Association.
72. Brief (with attachments), untitled, submitted by Iris Jonsson
73. Brief, "Why Build the OSB Plant in the Swan River Valley", submitted by Lorne A. Chapple.
74. Brief, "Environmental Protection Agency Threshold Emission Values". Submitted by Dan Dilworth, Louisiana-Pacific Corp.
75. Brief, "Louisiana-Pacific Canada Ltd. Proposed Oriented Strand Board Plant Presentation to the Manitoba Clean Environment Commission, June, 1994. "Worst Case Emissions Assumptions". Submitted by Dan Dilworth, Louisiana-Pacific Corp.
76. Correspondence, dated June 23, 1994 from Robert A. Cloud, Wheelabrator Clean Air Systems Inc. to Tony Cavadeas, Louisiana-Pacific Corp. Submitted by Alan Scarth, Louisiana-Pacific Corp.
77. Brief, untitled, submitted by Everett Eichler.
78. Technical Submission to the Clean Environment Commission on The Proposal Filed by Louisiana-Pacific Corporation for the Oriented Strand Board Plant - Minitonas, Pursuant to the Environment Act. Submitted Doug Peterson, Manitoba Environment.
79. Brief, "Louisiana-Pacific Presentation". Submitted by David Gray.

80. Notice of Alteration of Proposal - Louisiana-Pacific Canada Ltd. Proposed Oriented Strand Board Plant, Minitonas, Manitoba (the "Development"). Submitted by Dan Dilworth, Louisiana-Pacific Corp.
81. Brief, untitled, submitted by Ross Atkinson.
82. Brief, untitled, submitted by Sandra Trumbley.
83. Brief, "Clean Environment Commission -Louisiana-Pacific Corporation Public Hearings Commencing 94 06 06, Swan River, MB". Submitted by Barry Wild.

APPENDIX D

File No. CI 94-01-81062 and
File No. CI 94-01-81422
(Winnipeg Centre)

COURT OF QUEEN'S BENCH OF MANITOBA

BETWEEN:	)	<u>W.G. Ryall and B. Nepon</u>
	)	for Swampy Cree Tribunal
	)	Council and Manitoba
	)	Keewatinowi Okimakanak I
SWAMPY CREE TRIBUNAL COUNCIL)	
and MANITOBA KEEWATINOWI)	
OKIMAKANAK INC. and DONALD	)	<u>B.J. Pannell</u>
SULLIVAN, THE FUTURE FOREST	)	for Donald Sullivan, The Future
ALLIANCE, AND CONCERNED CITIZENS	)	Forest Alliance and Concerned
OF THE VALLEY,	)	Citizens of the Valley
)	
Applicants,)	
	)	<u>D.N. Abra. O. C.</u>
- and -	)	for The Clean Environment
	)	Commission
THE CLEAN ENVIRONMENT)	
COMMISSION, AND THE MINISTER OF	)	<u>W.G. McFetridge</u>
ENVIRONMENT,	)	for the Minister of
	)	Environment
Respondents,)	
	)	<u>A.W. Scarth. O.C.</u>
- and -	)	<u>and J. Edmond</u>
	)	for the Louisiana-Pacific
LOUISIANA-PACIFIC CORPORATION,	)	Corporation
)	
Intervenor,	)	<u>Judgment delivered:</u>
	)	July 18, 1994

HIRSCHFIELD, J.

The applicants (whose applications were consolidated for this hearing)
moved for:

- (a) an order of prohibition prohibiting the Clean Environment Commission (the Commission) from continuing with a public hearing with respect to an application by the Louisiana-Pacific Corporation (L.P.C.) for the construction and operation of an Oriented Strand Board (O.S.B.) manufacturing plant including hearing further evidence, making an adjudication thereon and issuing its report;
- (b) a declaration that the Minister of Environment (the Minister) failed to permit input from the applicants and the public in his terms of reference to the Commission;
- (c) a declaration that the Director of the Environment (the Director) failed to permit input from the applicants and the public in his approval of the environment impact assessment required under s. 10(4) of The Environment Act, S.M. 1987-88, c. 26, Chap. E125 (the Act);
- (d) a declaration that the Minister erred in law and exceeded his jurisdiction in describing restrictive terms of reference to the Commission.

In addition, the applicant Donald Sullivan moved for an order of certiorari quashing the Commission's decision to not permit certain of his witnesses from testifying by telephone and quashing the establishment of the membership of the panel of the Commission constituted to hold the public hearing.

The grounds put forward by the applicants for their application are that both the Minister and the Director did not comply with the provisions of the Act by precluding the applicants and the members of the public at large from having input into the determination of the terms of reference placed before the Commission and the scope of the environment impact assessment which they say are required pursuant to ss. 10(4) to 10(7) inclusive of the Act.

The applicant Donald Sullivan in his application for certiorari put forward the ground that the Commission showed bias and was unfair in the application of its procedure to hear witnesses by way of telephone.

L.P.C. was not a party to the proceedings and requested intervenor status. All the parties consented to an order being made. I therefore granted such status to it.

At the conclusion of the submissions, I indicated I would be reserving my decision. I then authorized the Commission to continue with the public hearing but not to provide its advice and recommendations until such time as my decision was completed, filed and delivered to all interested parties.

The relevant provisions of the Act and Regulations are attached as Appendix "A".

The facts briefly are as follows. In November 1993, the Province of Manitoba (Manitoba) was provided with information that L.P.C. was giving consideration to building an O.S.B. plant in the province and that information had been requested with respect to the licenses which would be required and the procedures which were to be followed to obtain such licences. The licences are issued by the Environmental Management Division of the Department of Environment of the province. It was determined that a mill or plant licence could be obtained within approximately six months from the date of an application and that forest management licence could be obtained within approximately 1 1/2 to 2 years from the date of such application. In each case, it would be necessary for the applicant for such licences to prepare a proposal and an adequate environmental impact assessment or statement. It was also determined that a licence for the board plant could be applied for separately from that of a forest management licence.

On or about January 10, 1994, representatives of the province, including the Deputy Minister of Environment, Mr. Brandon, the Director of Environmental Approvals for the province, Mr. Strachan, and staff members of the Economic Development Board of the province, met with representatives of L.P.C. and discussed with them the proposed project and the licencing requirements as set out in the Act and Regulations. It was subsequently determined that the L.P.C. would be provided with assistance (as had others) from the province with respect to the documentation and information that would be required to be filed by it; that the proposal for the pursuant to Regulation 164/88, and that the application for the forest management licence would be handled separately and apart from the licencing application for the plant.

In the same month it was determined that should L.P.C. submit a proposal for the construction of a plant, even though a public hearing for a Class 1 development is not required, the Minister would request the Clean Environment Commission to conduct a public hearing pursuant to s. 6(5)(b) of the Act.

In mid-February 1994, L.P.C. was provided with a document which provided it advice as to the preparation of an environment impact assessment. In addition, a copy of the document was provided to the Environmental Technical Advisory Committee of the province, the government departments which might be affected by the proposal and to the federal government departments of Environment, Fisheries and Oceans and Indian and Northern Affairs.

From that date on there were a number of meetings held between representatives of the Department of the Environment and L.P.C. to discuss the environmental impact assessment, to address concerns which had been expressed by some members of the public and to ensure that the proposal and the assessment would totally comply with the department's environmental impact requirements. Copies of the environmental impact assessment were reviewed by the Department of Health, the Department of Labour, members of the Industrial Chemicals Institute and the Environmental Coordinator of the applicant, the Swampy Cree Tribal Council, and others such as the Manitoba Lung Association.

On May 5, 1994, L.P.C. submitted its formal proposal for the construction of the plant. The proposal and the covering letter submitted by L.P.C. was placed in the Manitoba main registry, was provided to the applicant Manitoba Keewatinowi Okimakanak Inc. and placed in the Centennial Public Library, the Legislative Library, the Northwest Regional Library in Swan River, Manitoba, and the Minitonas Public Library in Minitonas, Manitoba. On May 6, 1994, the Minister wrote to the Chairman of the Commission requesting that a public hearing with respect to construction of the plant be held. In his letter. The Minister indicated that:

"... A separate proposal will be filed at a later date concerning a forest management plan."

With the letter, the Minister enclosed the terms of reference for the hearing. Such terms are set out in their entirety:

Terms of Reference
for
Clean Environment Commission Hearings
on the proposed Louisiana-Pacific Corporation
Oriented Strand Board Plant

Rural Municipality of Minitonas

Background

On May 5, 1994, the Louisiana-Pacific Corporation (the Company) submitted an Environment Act Proposal accompanied by an Environmental Impact Statement (EIS) for the construction of an oriented strand board (OSB) plant to be located on the east half of section 16, township 36, range 25 west of the principle meridian near the village of Minitonas in the Rural Municipality of Minitonas.

The proposal is to manufacture oriented strand board from hardwood.

Mandate of the Hearings

The Clean Environment Commission shall conduct public hearings to consider the Oriented Strand Board plant Proposal and to receive public concerns respecting the Proposal. Following the hearings, the Clean Environment Commission shall provide a report to the Minister of Environment pursuant to Section 7(3) of The Environment Act. The Commission may at any time request that the Minister of Environment review or clarify these Terms of Reference.

Scope of the Review

The Clean Environment Commission is to consider the Proposal and public concerns and provide a recommendation on:

- whether an Environment Act Licence should be issued respecting the Louisiana-Pacific Oriented Strand Board Plant Proposal:

Should the Commission recommend the issuance of a Licence, then appropriate recommendations should be included in the report respecting:

- the potential environmental impacts of the emissions and discharges from the Louisiana-Pacific Corporation Oriented Strand Board Plant Proposal on the following:
 - (i) biophysical environment;
 - (ii) human health;
 - (iii) present and currently planned land and water uses including terrestrial and aquatic ecosystems;during the construction, operation, maintenance and the final decommissioning of the proposed Louisiana-Pacific Corporation Oriented Strand Board Plant;
- the socio-economic impacts directly related to the environmental impacts of the Louisiana Pacific Corporation Oriented Strand Board Plant Proposal;
- the measures proposed to mitigate adverse impacts resulting from the Louisiana-Pacific Corporation Oriented Strand Board Plant Proposal and, where appropriate, to manage any residual adverse effects;
- any proposed plans and procedures for the transportation, handling and disposal of dangerous goods and hazardous materials, and for response to environmental accidents and emergencies; and
- any proposed mechanisms for monitoring of the environmental impacts of the Louisiana-Pacific Corporation Oriented Strand Board Plant Proposal once constructed and any subsequent research that may be considered necessary.
- The Clean Environment Commission recommendations shall incorporate, consider and directly reflect, where appropriate, the Principles of Sustainable Development as contained in Towards a Sustainable Development Strategy for Manitobans."

A notice of the proposal was published in the Winnipeg Free Press on May 7, 1994 and in newspapers published in the area of Swan river and Minitonas on May 11, 1994. It indicated a public hearing would be held by the Clean Environment Commission commencing June 6, 1994 and that comments either for or against the proposal should be submitted to it by May 30, 1994.

The position of the applicants is that there was undue and unseemly haste on the part of the minister, the Deputy Minister and the Director of the Environment in deciding to classify the plant as a Class 1 development; in determining that at this time it would deal only with the application for the mill and subsequently deal with an application for forest management. Issue is also taken with the fact that these determinations were made without any input from the applicants or the public. In addition, issue is taken with the fact that the terms of reference set out by the Minister were decided upon by him without any input from the applicants and the public. The applicants take issue with the fact that the environmental impact assessment delivered by the L.P.C. was also prepared without any input from them or the public. The whole tenor of the applicants' position is that before the hearing in question can or ought to have been held, there should have been input both from them and the public at large into determining the terms of reference, the environmental impact assessment and the guidelines for the hearing itself.

The applicants argued that by approving the environmental impact assessment without input by them, the Director in effect precluded them from obtaining their own experts' reports in contradiction of or in support of the L.P.C.'s environmental assessment. They further argued that the holding of a public hearing does not cure the problems caused by their inability to have the requisite input beforehand.

The applicants submitted that ss. 10(4) and (5) of the Act are mandatory directions to the Director upon his receipt of a Class 1 proposal. It is, they said, particularly essential that the proposal be filed with the Interdepartmental Planning Board and such other departments as may be affected by the proposal and the Interdepartmental Planning Board given sufficient time to study the proposal in order that it might, pursuant to s. 10(5) make a request to the Director to consider the proposal as a Class 2 development rather than a Class 1 development. The Director, the applicants say, had a duty to wait for all reports before making a decision to classify the development as Class 1. This the Director did not do. Had he provided a waiting period and if the public had had the opportunity to provide input prior to the preparation of the terms of reference and the environmental impact assessment, the Director may have been persuaded under s. 10(5) to have reclassified the development to Class 2. But since there was no opportunity for them or the public to have such input, the proposal was wrongly proceeded with as a Class 1 development.

In addition, the applicants argued, had they been given the opportunity to exercise their statutory right to provide input, they would have argued that the application for the licence for the mill and the licence for the forest management ought not to be considered separately but should be heard at one and the same time. But the Minister, without input from them, made his decision and thereby restricted the inquiry.

By precluding such input and restricting the inquiry, the applicants submit, the Commission hearing scheduled to commence June 6, 1994 and the hearing itself, are invalid.

The respondents' position is that the proposed plant was a Class 1 development pursuant to Regulation 164/88 and therefor properly classified as such. Because of a perceived possibility there might be public demand for a hearing, the Minister, although not required to do so, would request such a hearing pursuant to s. 6(5)(b) of the Act.

Once such a request is made, the Commission is obligated to conduct a public hearing and its jurisdiction to do so flows from that request.

The respondents then submitted that there was nothing sinister about accepting an application for the licence for the mill only. It and an application for a forest management licence are two entirely different matters. In addition, there is no pre-condition or provision in the Act that the applications be submitted and heard and determined together. They stated that at all times the Minister, the Director and the Commission acted properly and in accordance with the provisions of the Act.

The obligations imposed upon the director in assessing a Class 1 development are set out in detail in ss. 10(4) to 10(10) of the Act. Under s. 10(6), he may (in the exercise of his discretion) request the Minister to direct the calling of a public meeting. He need not do so. Indeed, there is no statutory requirement to hold public meetings for a Class 1 development unless requested by the Minister.

There is no provision in the Act for public input into the form or content of an environmental impact statement or the terms of reference and guidelines directed by the Minister to the Commission. The latter are administrative acts solely within the prerogative of the Minister.

When the Minister directs a hearing to be held, the Commission must hold such a hearing and it is not entitled to ascertain or determine that there has been compliance with s. 10(4). The Commission is obligated, however, to comply with the provisions of s. 7. since the terms of reference do not specify or refer to the class of the proposed development, the Commission is empowered to request information as to such classification or reconsideration of the terms of reference. In addition, when providing its advice and recommendations to the Minister, it could recommend that the plant be classified as a Class 2 development rather than a Class 1 development.

I am not persuaded that the applicants' interpretation of the Act is correct. They are of the opinion that s. 1(1)(d) and s. 2(1) of the Act give them (and the public at large) an absolute right to have input into what they feel are major decisions with respect to environmental issues. They do not recognize, as they are required to, "the responsibility of elected government ... as decision makers." If the position of the applicants is accepted, the government would not be in a position to ever make an administrative decision with respect to an environmental issue.

The public, of whom the applicants are members, is entitled to participate in the process when the commission of its own volition holds or calls public meeting (s. 6(4)), when the Minister directs one or when there is an application for a Class 2 licence.

I am of the view, and so hold, that the applicants were not entitled to participate or have any input whatsoever in the framing of the guidelines, the terms of reference or the environment impact assessment.

I also am of the view, and so hold, that the applicants are not entitled to compel the Commission to hear matters relating to the proposed forest management licence application at the hearing being presently conducted with respect to the application for a licence for the mill.

The Commission, while it is entitled to make rules governing its procedure, is not a quasi-judicial body. It does not adjudicate on issues nor does it make decisions. It merely advises and makes recommendations to the Minister (s. 7(3)) following a public hearing, which advice and/or recommendations may be accepted or rejected.

The applications, in my opinion, are both premature and inappropriate. I am of the opinion that the prerogative writ of prohibition does not lie against an advisory body whose advice and recommendations may or may not be accepted or followed and which, in any event, are not determinative of the issues which have been placed before it by way of the Minister's terms of reference.

The application for a writ of prohibition is therefore denied.

With respect to the issue of bias or unfairness on the part of the panel raised by the applicant Donald Sullivan, the facts are: This applicant had made an application to have evidence given by way of a conference telephone call by one Scott Butler, a former employee of L.P.C., who had been dismissed some eight years earlier because of his performance. It was agreed that he was not an expert and L.P.C. then objected to his giving evidence in this manner before the Commission. The panel adjourned the hearing in order to discuss the matter outside of the presence of counsel. It determined that it would accept telephone evidence only from those individuals "that the panel accepts as being expert". The Chairman of the Commission then stated:

"In order to ensure we avoid getting into awkward and difficult and non-productive circumstances we would ask that any proposing to use the telephone system to talk or discuss or establish something, that we have that information in writing ahead of time so that it can be reviewed by the proponent or others ..."

Subsequently, the Commission heard evidence by way of telephone from members of the Environment Protection Agency of the United States of America called by the applicant Donald Sullivan. All of the parties including L.P.C. had consented to these members presenting their evidence in that manner.

Later, the Manitoba Lung Association which had presented a paper to the Commission was called upon to give evidence by the Chairman of the Commission. The parties giving evidence were Dr. Allan Kraut, an Occupational Health Physician and an Assistant Professor of the Department of Internal Medicine and Community Health, and Ms. Pat Miles, an executive member of the Manitoba Lung Association. She was assisting Dr. Kraut because of his loss of voice. She read into the record of the Commission the paper which had been presented to it and then suggested and answered questions dealing with the creation of a local health committee to enforce compliance with environmental standards. She agreed, in response to a question put to her by Mr. Sullivan's counsel, that she was not testifying as an expert.

Following completion of this telephone call, Mr. Pannell again requested the Commission permit Mr. Butler to testify by way of a telephone, which request was denied. He then submitted that by permitting Ms. Miles to testify over the telephone and not permitting Mr. Butler to so testify it was being unfair, biased and discriminatory.

I have read the transcripts of the proceedings before the Commission in which Ms. Miles testified and have concluded that she did not present any expert evidence whatsoever; that her credibility was not in question or in issue and that she was examined by all interested parties. The only reason she provided testimony was to assist Dr. Kraut who had a sore throat and was therefore unable to speak for a lengthy period of time.

In my opinion, the Commission did not act unfairly towards Mr. Sullivan by permitting Ms. Miles to testify and not permitting Mr. Butler to testify. I am further of the opinion that there was no bias or reasonable apprehension of bias or procedural unfairness whatsoever on the part of the Commission in denying the application to permit Mr. Butler to give his evidence by way of telephone and that such denial is not a ground for the granting of the prerogative writ of certiorari.

In the result, the applications are denied with costs to the respondents. If the parties cannot agree on costs, they should arrange with the Trial Coordinator to obtain a date suitable to all parties to come before me.

Attached as Appendix "B" is a list of the cases and authorities to which counsel have referred.