

SUMMARY REPORT

PROPONENT:

PINE FALLS PAPER COMPANY LIMITED (name change to Tembec Industries Inc.)

PROPOSAL NAME:

PINE FALLS MILL

CLASS OF DEVELOPMENT:

Two

TYPE OF DEVELOPMENT:

FORESTRY - PULP AND PAPER MILL

CLIENT FILE NO.:

173.3

OVERVIEW:

On February 7, 1992, Manitoba Environment received three Proposals from Abitibi-Price Inc. pursuant to Section 11(1) of the Environment Act respecting their pulp and paper mill at Pine Falls. The three Proposals involved a proposal for the construction and operation of a de-inking plant, a proposal for the construction and operation of a new woodroom, and a proposal for the ongoing operation of the existing mill together with the construction and operation of a wastewater treatment facility for the process wastewater from the mill in order to comply with the new Fisheries Act Pulp and Paper Effluent Regulations. At Abitibi's request, the advertisement of the Proposals was delayed until May of 1992. The three Proposal were advertised in the Winnipeg Free Press on May 9, 1992, the Lac du Bonnet Leader on May 12, 1992, and the LaLiberte on May 22, 1992. The Proposals were also placed in the Public Registries in Bldg. 2, 139 Tuxedo Ave. in Winnipeg; the Manitoba Eco-Network in Winnipeg; and the Selkirk Community Library in Selkirk for public review and comment until June 8, 1992.

At the time that the three Proposals were submitted, this existing Development had no Environment Act Licence to address its liquid effluent discharges by reason of Manitoba Regulation 96/88R which exempted all pulp and paper mill effluent discharges from review under the former Clean Environment Act. This was because the federal Environmental Protection Service adopted a lead role on effluent discharges from existing and new pulp and paper mills by administering Fisheries Act Pulp and Paper Effluent Regulations and Guidelines passed in November, 1971. Manitoba Regulation 96/88R was, however, repealed on November 23, 1989, following the replacement of the Clean Environment Act with The Environment Act on July 17, 1987. Although the Department had requested Abitibi-Price to file a Proposal under the new Act on December 7, 1989, the Department later agreed to a petition from Abitibi-Price to delay the filing of the Proposal until the new Fisheries Act Pulp and Paper Mill Effluent Regulations, pending at that time, were passed. Air emissions from the Pine Falls Mill operation were and still are licensed under Environment Act Licence No. 764 VOO issued on May 18, 1984. As well, the off-site disposal of solid waste from the Pine Falls Mill was and still is controlled under Manitoba Regulation 150/91 respecting waste disposal grounds.

Since the Proposals for the de-inking plant and the new woodroom indicated that Abitibi's plans were to place an order on these facilities in early 1992, Stage 1 Licence No. 1568 and Stage 1 Licence No. 1569 were issued on June 29, 1992, to conditionally authorize their construction but not their operation.

Whereas Canada Fisheries and Oceans passed new Pulp and Paper Effluent Regulations under the Fisheries Act in May, 1992, Abitibi-Price applied for and received an extended transitional authorization to extend the compliance deadline date for the mill to December 31, 1995. To meet that deadline date, construction of a new wastewater treatment facility had to commence in early August, 1994. To clarify engineering decisions which had to be finalized on the design of the new wastewater treatment plant, the Director issued assurances to Abitibi-Price on April 29, 1994, at Abitibi's request, that "the liquid effluent discharge limits for BOD matter, suspended solids and acute lethality in the Licence to be issued under The Manitoba Environment Act will be the same levels as contained in the May 20, 1992, Fisheries Act Pulp and Paper Effluent Regulations". However, under The Environment Act a proponent cannot commence construction and operation on a project filed under Section 11(1) until the proponent is in receipt of an Environment Act Licence. Since an overall Environment Act Licence to address the upgrading/modernization of the mill could not be issued until an EIA was completed by Abitibi-Price, submitted and reviewed, Abitibi-Price applied to the Department on July 12, 1994, for a staged Licence to authorize the construction of the proposed new wastewater treatment facility. Their application was supported with an engineering definition study carried out by Klöckner Stadler Hurter Ltd. (KSH), to be followed by a detailed engineering study by KSH. Accordingly, a Stage 1 Licence No. 1876 S1 for the mill was issued on July 26, 1994, conditionally authorizing the construction and operation of the proposed wastewater treatment facility. Construction of the facility was completed in time for the effluent discharges to comply with the new federal Pulp and Paper Effluent Regulations.

Draft Environmental Impact Assessment (EIA) guidelines for the existing and future operation of the mill, encompassing all three Proposals in one, were initially developed by an interdepartmental Technical Advisory Committee (TAC) in November, 1992. Lack of agreement by Abitibi-Price on the scope and content of the draft EIA guidelines, frequent consultation with Abitibi-Price and the Interdepartmental Planning Board, followed by an appeal filed by Abitibi-Price to the Minister on the EIA guidelines issued by the Director, delayed the finalization and issuance of the EIA guidelines by the Minister until October 21, 1993. All those members of the public who had shown interest in the development of the EIA guidelines, as well as each TAC member, were sent a copy of the final EIA guidelines on November 4, 1993.

Ever since the receipt of the three Proposals from Abitibi-Price, planning delays on all three Proposals were encountered due to ongoing negotiations for an employee buyout of the Pine Falls Mill. This buyout of the Pine Falls Mill was finalized on September 1, 1994, and Pine Falls Paper Company Limited (PFPC) became the new corporate owner of the mill, and also automatically became the official proponent of the three Proposals originally submitted by Abitibi-Price Inc.

On May 24, 1995, the Department received from PFPC the completed EIA report which was prepared for them by their environmental consult, MES Ltd. The receipt of the EIA was advertised and copies were placed in the Public Registries in Bldg. 2, 139 Tuxedo Ave. in Winnipeg; the Manitoba Eco-Network in Winnipeg; the Selkirk Community Library in Selkirk; and the St. Georges Community Centre in St. Georges for public review and comment until August 11, 1995. As well, copies of the EIA were distributed to all members of the TAC for review and comment until August 11, 1995, which also includes federal representation. All the comments received from TAC on the EIA were forwarded to PFPC on August 23, 1995, for their comment. The Proposal outlined in the EIA excluded the construction of the new woodroom, and subsequent information received from PFPC indicated that this project is not in their 5 year planning horizon.

Twenty letters were received from individuals and environmentally related organizations, wherein many deficiencies in the EIA were referenced, and nineteen requests were made for public hearings on PFPC's proposal and EIA. On August 31, 1995, the Director issued a letter to all the interveners advising them of his decision not to recommend to the Minister that a public hearing be held, together with the reasons for his decision. Seven appeals were subsequently submitted to the Minister regarding the Director's decision, but were denied by the Minister in support of the reasons upon which the Director made his decision. Copies of all the public comments were forwarded to PFPC for comment on any specific deficiencies

identified by the public.

In response to the comments from TAC and the public, PFPC submitted an addendum to their EIA on October 18, 1995. Copies of this addendum were distributed to TAC and to the public registries, and relevant sections of this addendum were sent to all those members of the public who had identified specific deficiencies in the EIA. No further comments were received by the Department.

On January 2, 1996, Manitoba Environment received a copy of the "Winnipeg River Task Force Final Report" dated November 30, 1995. This report was produced by a task force representing Indian and Northern Affairs Canada, Environment Canada, and the Sagkeeng First Nation. The report summarizes the major issues and recommended courses of action respecting the Winnipeg River-related concerns of the Sagkeeng First Nation, and was developed by consensus based on the proceedings at public forums held in early 1995. Some of the recommendations of this task force report are addressed in the draft Stage 2 Licence.

COMMENTS FROM THE PUBLIC:

Twenty submissions were received from the public in response to their review of PFPC's EIA.

Of these submissions:

- 14 responses were from private individuals;
- 5 responses were from environmental groups;
- 1 response was from the Sagkeeng First Nation;
- 16 responses offered general concerns;
- 4 responses reflected specific deficiencies with the EIA;
- 13 responses called for public hearings by the Clean Environment Commission; and
- 6 responses called for joint provincial/federal public hearings.

Specific deficiencies identified by the public with the EIA can be summarized as follows:

- No description or environmental impact assessment on the disposal of the sludge from the operation.
- No environmental impact assessment carried out on the effect of groundwater at the sludge disposal site.
- With the disposal of sludge and solid waste from this operation being an essential element in an environmentally safe operation, the review of the proposed site should have been considered as part of the environmental licensing process.
- Baseline data used for the river is its present condition.
- No description of the mill's outfall to the river.
- No description on each pollutant used in the process, its toxicity, how it is used in the mill process, in what quantities, how it is disposed of, and what possibilities for accidents or misuse exist.
- It reads as a "guide to how paper is made" rather than an Environmental Impact Assessment.
- No mention of the past spills involving Busan-52 spill or sodium hydroxide.
- No reassurance or explanation of the one ton spill of Busan-52 spill was offered.
- No explanation as to how a large spill of a pollutant such as Busan-52 into the new treatment plant will be handled by the treatment plant other than by a 40 hour retention.
- No mention of the environmental implications of the Town of Pine Falls sewage bypasses, from time to time, with the mill effluent.
- Inadequate treatment of reportable spills given the downstream use of the river water for drinking purposes. There should be no distinction between major or minor spill, only between hazardous and non-hazardous spills, and no informal understandings with the province as to what spills are to be reported.
- No accounting for the air emissions from the mill process and the de-inking plant.
- Fails seriously by not including the most recent federal studies of fish health affected by this mill's effluent.

- No detail on any proper resource pricing or do a full environmental costing of the future operations of the mill.
- It declines to do the required decommissioning plan.
- No socio-economic study is provided.
- It is irrational that the EIA claims the air emissions to be in compliance with the emissions licence when the emissions haven't been monitored in 10 years.
- No mass balance provided for the 120,000 litres of oil used annually to indicate the final destination of this oil.
- The difficulty for plant management to find enough waste paper to justify and supply the de-inking plant is not acknowledged in the EIA.

Disposition:

The comments were forwarded to the proponent for comment. The proponent provided a response report. Copies of relevant portions of the report were sent to those parties who had identified specific deficiencies in the EIA. No further comments were received on the addendum report. The calls for public hearings were addressed by the Director with the decision not to recommend to the Minister that a public hearing be held. Appeals on this decision were subsequently denied by the Minister.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Rural Development commented that they have no planning concerns since there are no existing planning documents covering the project, nor is the project within an organized municipality.

Natural Resources commented that:

- The sampling methodology used to develop baseline information on downstream fisheries populations did not account for seasonal variations in fish movements and habitat preferences.
- Aquatic impacts through water quality changes can be subtle and differential. The varying life stages that could be impacted has not, however, been studied completely.

Also, they recommended that an ongoing fisheries related monitoring program to obtain downstream fish habitat and population dynamics information be implemented by PFPC as a condition of the Licence.

Disposition:

The comments were forwarded to the proponent for comment. The proponent provided a response report, of which a copy was forwarded to the TAC member. No further concerns were subsequently identified.

Historical Resources commented that they have no concerns.

Health commented that "provided that effluent monitoring and regulation meet Manitoba Environment requirements" they have no concerns with the proposal at present.

Water Quality Management commented that:

- Section A.2 makes no mention of the Natural Resources Transfer Agreement of 1930.
- Section 3.4 makes no reference to the cross connection with the Town of Pine Falls raw sewage overflow or bypass infrastructure.
- Section 4.3 is ambiguous about the ability of the wastewater treatment plant being able to maintain compliance with the federal regulations under unusual circumstances.
- Section 6a1.1.3 did not provide a proper analysis on the river mixing zone to demonstrate that the Manitoba Surface Water Quality Objectives would not be exceeded in a mixing zone beyond a river width of 25% and a river flow rate at the 7Q10 flow rate.
- Section 6a.7.2.2 does not specify the US EPA or any Canadian jurisdiction criteria for acceptable Polynuclear Aromatic Hydrocarbons (PAH) levels in sediment.
- Section 6b.1 cites only US EPA criteria for PAH in drinking water. The existence of any Canadian

criteria is not identified.

- Section 6b.1 fails to reference the Health Canada study on recreational water quality.
- Section 6b.1 makes an incorrect conclusion by stating that reported gastrointestinal problems and skin rashes are no related to the use of treated drinking water and the use of the river for swimming.
- Section 6c.1.1., Part ii) is in error in that recreation is well documented in Health Canada's 1994 study.
- Some total alkalinity and hardness data appear to be out by an order of magnitude in the data reported in Table 4 of Appendix 10.
- Precision and accuracy associated the fluorescence readings should have been identified along with some judgment of the confidence associated with the effluent plume delineation.

Disposition:

The comments were forwarded to the proponent for comment. The proponent provided a response report, of which a copy was forwarded to the TAC member. No further concerns were subsequently identified.

Air Quality Management commented that:

- While in Section 2.6 of the EIA it states that weather data have been gathered at a weather recording station on the site for several years, Appendix 8 of the EIA provided data only for June, July and August of 1994. If more data was available, a summary of it should be provided to allow comparisons to be made with Great Falls and Winnipeg meteorological conditions.
- While the title of Section 5.5 refers to emissions to the atmosphere, only ambient levels are presented rather than emission rates. Stack sampling results would be more applicable in this section.
- Section 5.5 references ambient air monitoring programs undertaken in 1984 to 1985, but the results are not summarized for comparison against the licensed ambient limits.
- Section 6a.4.1 contains conflicting data compared to Section 5.5 regarding ambient air concentrations of suspended particulate matter.
- Section 9.3 includes a proposal to monitor emissions from the de-inking plant and the effluent treatment plant once these plants are operational, but no monitoring program details were provided. PFPC should, before initiating such a monitoring program, discuss the details of the monitoring program with Manitoba Environment.

Disposition:

The comments were forwarded to the proponent for comment. The proponent provided a response report, of which a copy was forwarded to the TAC member. No further concerns were subsequently identified.

Terrestrial Quality Management commented that they had concerns regarding a 30 hectare wooded area that would be removed by construction activities. Specific concerns were:

- Where is the area, and what kind of wooded area is it?
- Although the EIA states that no rare plants were found in this vicinity, was a vegetation survey conducted in this wooded area?
- Care should be taken that a rare shrub, *Ceanothus herbaceus* (New Jersey tea) is not in this wooded area.
- What wildlife inhabit this wooded area?
- What mitigation action is being considered for destroying this wooded area?

Disposition:

The comments were forwarded to the proponent for comment. The proponent provided a response report, of which a copy was forwarded to the TAC member. No further concerns were subsequently identified.

Fisheries and Oceans Canada commented that they would not be participating in the review of the EIA since the federal government has already made its Environmental Assessment and Review Process screening decision prior to the transitional authorization granted under the Fisheries Act. However, they

did have an interest in commenting on a referenced study report (Friesen et al. (1994)) conducted by Dr. Lyle Lockhart and Ms. Candi Friesen. Their comments were:

- The EIA is incorrect on page 60. The study report never stated that the alterations observed to the reproductive hormone levels in fish were not permanent, nor did it say that these levels returned to normal once the fish passed through the area of influence from PFPC's effluent.
- Table 6a, 3-1 may be incorrect in noting the presence of Longnose Sucker but no Golden or Silver Redhorse Suckers. Fisheries and Oceans found the Redhorse species fairly common, but never a Longnose Sucker.
- The EIA is incorrect on page 77 in that:
 - it refers to the data collected on steroid hormone level reduction in fish in the Winnipeg River as "preliminary", while they are not preliminary in that they have been definitely documented over two years to decline in fish caught immediately downstream (within 1.5 km) of the mill's outfall;
 - while the fecundity of the fish was apparently not affected in the first year of studies, it was affected in the second year;
 - the study report by Carey et al. never stated that the increase in MFO enzymes are responsible for the depletion of steroid hormones, just that these 2 effects are commonly correlated;
 - Linstrom-Seppa et al. (1992) never noted that these effects are weaker in non-chlorine bleaching pulp mill effluent; and
 - the reference to the incidents of chironomid deformities in benthic samples is a misquote.
- Conductivity is not a good tracer to confirm the plume characteristics so as to assess fish exposure to effluent during the fish collection program. Fluorometry, suspended carbon, nitrogen and phosphorous are better indicators of plume characteristics. Also, using EROD to assess fish exposure would be much better than using any parameter in the water.

Disposition:

The comments were forwarded to the proponent for comment. The proponent provided a response report, of which a copy was forwarded to the TAC member. No further concerns were subsequently identified.

Indian and Northern AffairsCanada commented that:

- The EIA fails to provide:
 - an account of all materials brought in and used by the mill;
 - a mass balance sheet detailing the inputs and outputs to and from the mill, and how the form the outputs are released (i.e. air emissions, effluent, product or solid waste);
 - the location and information on the landfill site;
 - a detailed description or schematic of the mill's effluent outfall (i.e. where it is, what sources drain into it, its physical structure);
 - the environmental impact of 300-500 kg of ash discharged with the mill effluent into the Winnipeg River;
 - an explanation, impact analysis, or mitigation measure for the continued presence of PAH's in the Winnipeg River.
 - the results of the 1984-85 monitoring program for suspended particulate matter, as well as a map indicating the dispersion of the particulate matter;
 - a description of the residual impacts (i.e. those impacts that remain after the mitigation has been implemented);
 - an accounting for the occasional bypass of raw sewage from the Town of Pine Falls into the mill effluent stream, how this will be remedied, and the environmental impacts of this practice;
 - how spills of hazardous waste involving quantities less than 1000 litres or 1 tonne are proposed to be handled, or for that matter how they have been handled in the past;
 - any discussion on the health effects of pesticide Busan 52 (described as a slimicide in the EIA) spilled into a drinking water source, its chemical properties, whether the new wastewater

- treatment facility would treat this chemical, and whether there is any mitigation in place to prevent the spill of this chemical again;
- an explanation for the source and persistence of total coliform in the river water at greater than 1 km downstream from the mill;
- a description of the environmental impacts of the project in Chapter 6 in that it only describes the existing environment;
- enough detail in Chapter 7 respecting planned mitigation measures;
- The EIA is incorrect to state that "close monitoring of the river water quality at regular intervals is conducted by federal authorities".
- The EIA is misleading in stating that "water samples met all drinking water standards, with the exception of colour, at the Fort Alexander Reserve", in that the Winnipeg River does not meet drinking water standards until after it is treated.
- It does not make sense on page 7 to say that because the province has agreed to accept federal standards for BOD5, TSS and acute lethality, these standards and their relationship to fisheries questions will not be part of the provincial licensing process, because Manitoba did not agree to abrogate or delegate any jurisdiction.
- The EIA requires clarification on:
 - whether the construction of the woodroom is part of the nature and scope of the proposal as outlined on page 10;
 - whether the mill has been operating to date without a Water Rights Licence;
 - the statement on page 55 in that it does not qualify which Class or Classes of the Manitoba Surface Quality Objectives (MSWQO) were compared against the river water quality studied by Environment Canada in 1986 to warrant the conclusion that the water quality of the river met preliminary MSWQO;
 - the source of copper and lead which was found to exceed the Class 2 MSWQO in the Winnipeg River, and if they are from the mill, the mitigation required to correct this;
 - why bark debris and total coliform are parameters which are not attributed to the mill operation;
 - why total coliforms will remain at or above present levels after the proposed treatment plant is installed, what their source is, what their impact of their persistence is on the river, and what the mitigation will be; and
 - why is the Sagkeeng First Nation only included on the list of people to be informed in the event of a spill, and not identified as the first persons to be notified.
- Until such time as the above concerns are addressed, their Department would oppose the issuance of an Environment Act Licence.

Disposition:

The comments were forwarded to the proponent for comment. The proponent provided a response report, of which a copy was forwarded to the TAC member. No further concerns were subsequently identified.

Health Canada commented that:

- The suggestion on page 55 that Health Canada monitors the river water quality at regular intervals is incorrect. Only the drinking water is monitored and there is no regular monitoring conducted.
- The ambiguity on page 56 incorrectly implies that Health Canada and the Canadian Pulp and Paper Council have done research together.
- On page 85 there is a long questionable leap of logic between the first sentence under the caption on Human Health and the following sentence.
- The statement on Page 85 that "Coliforms in pulp mill effluent have consistently been shown to be free of any pathogens which may pose a health risk to humans (Clark et al. 1992)" despite the findings of Health Canada which showed a significantly higher E. coli concentration in the Pine falls effluent than was found upstream, and while none of these concentrations are of significant health concern, the pathogen E. coli is definitely in the mill effluent.

Disposition:

Since Health Canada was not originally represented on the TAC, their comments were received too late to be considered in PFPC's response report to questions raised by the TAC and the public on their EIA.

PUBLIC HEARING:

No public hearing was held on this Proposal. Although many requests were made by the public for a public hearing, and appeals were made to the Minister for a public hearing, the appeals for a public hearing were denied by the Minister.

RECOMMENDATION:

A copy of a draft Stage 2 Environment Act Licence is attached for the consideration of the Director. It would replace and rescind the existing Stage 1 Licence No. 1568, and Stage 1 Licence No. 1876 S1, as well as rescind the Stage 1 Licence No. 1569 which had been issued to authorize an imminent construction of the new woodroom. Since this project is now indefinitely postponed, and was not included in the Proposal description in the EIA, its future resurrection ought to be addressed through the alteration notification provisions of The Environment Act.

If approved, I recommend that the Licence be assigned to the Eastern-Interlake Region for surveillance, monitoring and ongoing compliance evaluation and enforcement responsibilities.

PREPARED BY:

C. Moche, P. Eng.
Municipal and Industrial Approvals
July 4, 1996

A Revised Stage 2 Environment Act Licence was issued on December 21, 2001 (name change) - Licence No. 1876 S2
E R

A Stage 2 Environment Act Licence was issued on July 9, 1996 - Licence No. 1876 S2. The Licence was appealed and subsequently Environment Act Licence No. 1876 S2 E was issued on January 21, 1997 and varied by including provisions for a Citizens Advisory Committee, a review of the Licence in the year 2000, to ensure that the treated effluent is not diluted before sampling, and by deleting the last sentence in Clause 1.