September 1, 2009

Mr. Edwin Yee
Chair, Manitoba Clean Environment Commission
305-255 Carlton Street
Winnipeg, MB R3C 3H8

RE: Information presented at the public meeting in Swan River, Manitoba

Dear Mr. Yee,

LP would like to thank the Clean Environment Commission (CEC) once again for the opportunity to present the details of our application to the panel members and public during the recent meetings held in Swan River. We are confident that, based on the information presented and provided to date, the panel will conclude that the application to increase emission limits at LP Swan Valley OSB is based on factual information and sound, credible science and fully safeguards the protection of community health and the environment, and that they will recommend to the Minister that the application be approved.

The Concerned Citizens of the Valley (CCV) and the Boreal Forest Network (BFN) attempted to damage or create doubt about LP's credibility and integrity at the public meetings by providing information to the panel that was inaccurate, misrepresentative, unsubstantiated and/or taken out of context. **In fact, based on the more than 13 years of demonstrated compliance, ethics, integrity and transparency with our employees, regulators and the community, we believe LP Swan Valley's credibility and integrity are beyond reproach.** This was confirmed by the presentations made by local government and community representatives during the public meetings. While LP is certain that the panel is fully capable of distinguishing fact and science from misinformation and rhetoric, we nevertheless believe that we have a duty to set the record straight on those issues. This letter is respectfully submitted in that regard. We have organized our comments by general topic in order to provide the necessary perspective on each issue.

Employee Safety and Health

First and foremost, LP takes exception to suggestions by Ms. Romak and Ms. McCrea that LP places the health and safety of its employees at risk. **In fact**, LP has an excellent safety performance record company-wide, and just this August received

the APA – The Engineered Wood Association's 2008 Safest Company award. LP Swan Valley in particular is one of the safest industrial companies in Manitoba, as evidenced by its low Total Incident Rate (TIR) and the lowest possible worker's compensation rates for our sector. The plant also received the highest ever score during a Manitoba Workplace Health and Safety audit in June 2000. These results have been achieved through the development and implementation of programs focused on employee behaviour and awareness, as well as comprehensive industrial hygiene monitoring, including MDI and formaldehyde indoor air quality and exposure sampling, dust surveys, annual hearing and pulmonary function testing, and annual respirator fit testing.

LP Swan Valley's Operations

Mr. Soprovich made allegations of the "RTOs being turned off at night", "the mill cutting corners when it comes to the environment", and "purple haze at ground level adjacent to the LP mill and for some miles around the mill". These allegations are unfounded, inflammatory and not supported by any evidence. **In fact**, LP long ago installed the necessary programming to automatically shut down the process if the operation of the RTOs is interrupted. LP encourages the CEC panel to take particular note of the subsequent presentations by Mr. Parlow, Mr. Chmelowski and Mr. Sagert of USW Local 1-324 that absolutely refute Mr. Soprovich's allegations. LP Swan Valley has an exemplary compliance record and has established credibility with respect to environmental issues with its employees, the local community and regulators based on 13+ years of demonstrated ethics, integrity, and transparency in its operations and communications.

With regards to the alleged "purple haze at ground level adjacent to the LP mill and for some miles around the mill", **in fact**, the day that Mr. Soprovich claims to have observed this purple haze is the same day, according to his presentation, that CJOB came to Swan River. While Mr. Soprovich did not provide any evidence of purple haze in his presentation, LP notes with interest the photo posted on the CJOB website that accompanied the story, presumably taken on that day (http://www.cjob.com/Shows/RCR/Story.aspx?id=1100214). No purple haze is evident in that photo.

Overall, Mr. Soprovich's statements with respect to LP Swan Valley's operations are unsubstantiated - and are, in fact, refuted in part by references in his own presentation. They appear to be designed solely for the purpose of creating doubt about the integrity of LP, our employees and our operations.

Greenhouse Gases

Mr. Sigurdson and Mr. Soprovich suggested that RTO nitrogen oxide (NO_x) emissions should be controlled to reduce greenhouse gas (GHG) emissions, for example through the use of low NO_x burners. **In fact,** NO_x is not a GHG, therefore controlling RTO NO_x would have no impact on facility GHG emissions. N_2O (nitrous oxide) is a GHG, which has a global warming potential (GWP) of 310 (eg. 1 kg of N_2O has the potential to create as much warming as 310 kg of CO_2). However, while RTOs generate large quantities of NO_x through the combustion of natural gas, only very small amounts of N_2O are generated. **In fact**, carbon dioxide (CO_2) represents over 99.5% of the total GHGs (measured as CO_2 equivalents or CO_2e) emitted as a result of the combustion of natural gas in the RTOs. It is likely that these members of the CCV are confusing NO_x and N_2O, suggesting a lack of awareness of the types of emissions that are considered GHGs.

Mr. Soprovich suggested that GHGs must be looked at independent of other emissions. This approach is antiquated and entirely contrary to current concepts of sustainability and life cycle analysis, where one must consider all aspects of a development or proposal in the decision-making process. These relationships are recognized in both established and emerging regulatory programs and frameworks worldwide. **In fact**, specifically with respect to GHGs, recent amendments to Manitoba's *Environment Act* require GHGs to be considered in any major development. In LP's opinion, this would eliminate any energy-intensive, combustion-based control equipment, such as RTOs, from consideration for any development in the province where applicable air quality and health risk criteria can be met without the additional controls. These are the same reasons that RTOs are not being advocated by any other jurisdiction in Canada, provincial or federal, for control of wood product facility emissions.

Mr. Soprovich also suggested that LP could purchase credits to offset GHG emissions from the RTOs, and that "many companies and municipal governments in Canada have committed to becoming carbon neutral with offset credits being one component of their plans". **In fact**, the Canadian forest products industry, including LP, has set a new standard for leadership on climate change by taking this initiative one step further through committing to being carbon neutral by 2015 without the purchase of carbon offset credits. The industry has formed a partnership with World Wildlife Fund-Canada to guide this initiative (http://www.fpac.ca/en/media_centre/press_releases/2007/2007-10-30_carbonNeutral.php). **In fact**, the forest products industry is expected to be a

major contributor to any offsets systems that emerge under provincial, regional, federal or international cap and trade systems.

Ms. McCrea stated that "…the main source of GHGs in the OSB industry comes from the burning of waste wood used to produce the heat needed to make their product". **In fact**, as previously discussed with the panel, CO_2 emissions from the burning of biomass are considered GHG neutral by all major international GHG accounting protocols, including Environment Canada's GHG reporting program, and so are not considered part of a facility's GHG emission inventory. It is worth noting that approximately 75% of the total GHG emissions at LP Swan Valley OSB are generated through the combustion of natural gas in the RTOs.

Ms. McCrea also questioned the amount of GHGs emitted and the methods of calculating these emissions. **In fact**, the NCASI GHG Calculation Tool for Wood Products, which is the tool LP uses to calculate its annual GHG emissions, is posted on the World Resources Institute/World Business Council on Sustainable Development's website (http://www.ghgprotocol.org/calculation-tools/wood-products) as an approved calculation tool for the wood products sector. This calculation tool follows all IPCC protocols. Actual GHG emissions are addressed in the application and detailed annual calculations can be provided to the CEC to further support the application, if necessary.

Finally, Ms. McCrea read into the record a letter from the Climate Change Connection that attempted to minimize the contribution that the shutdown of the RTOs would make to Manitoba's overall GHG reduction efforts. LP finds this criticism interesting and somewhat ironic as environmental organizations typically encourage and endorse exactly these types of incremental changes that cumulatively achieve overall objectives. As stated in our presentation, if every manufacturer in Manitoba had the ability to reduce GHG emissions to the extent that is achievable at LP Swan Valley OSB, Manitoba would be well on its way to meeting its international obligations.

Ambient Monitoring

Mr. Soprovich suggested that LP designed a flawed ambient monitoring system, and questioned the location of the ambient air monitoring stations and the frequency of sampling. **In fact**, the ambient air monitoring program, including sampling schedule, sampling methods and station location, was developed in consultation with and approved by Manitoba Environment (now Manitoba Conservation), and quarterly reports have been submitted for review since 1995. As discussed at length

during our presentation, the stations are located at the nearest residence in the predominant downwind direction (station LP1), and between the plant and the Town of Minitonas (station LP2), which is the nearest population centre. It is also worth mentioning that great care and consideration were taken to locate the facility downwind and/or away from Minitonas and nearby residences.

With respect to Mr. Soprovich's comments regarding sample frequency, these are based on an excerpt from a March 13, 2009 Manitoba Conservation e-mail from Mr. Dave Bezak to Ms. Laurie Streich. It is important to read that e-mail in its entirety, as presented below:

> "Laurie, we have given some additional consideration to the above LP proposal, as related to outdoor ambient air quality monitoring. Though the current ambient air quality monitoring program being undertaken in the vicinity of the LP facility is relatively robust and inclusive of the appropriate parameters (emphasis added), consideration might (emphasis added) be given to increasing the frequency for the collection of some of the emitted substances. Our recommendation is that the:
>
> - frequency of sample collection for MDI, phenol and hydrogen cyanide be increased to the "weekly" schedule (one 24-hour integrated sample every sixth day) from the current quarterly schedule, and
> - frequency of sample collection for formaldehyde be increased to at least 24, 1-hour samples every 6th day or some type of random distribution for determination of the sampling times for the individual hourly samples (from the current one 1-hr sample every 6th day).
>
> It is our view that the current sample collection frequency for the above substances is just too infrequent to possibly ever capture an air sample that might be impacted by facility emissions and, therefore, reflective of that impact."

In our opinion and as confirmed in discussions with Manitoba Conservation, Mr. Bezak's comments were intended as recommendations for possible improvement to the existing program. Indeed, the monitoring program has been in operation for nearly 15 years without any concerns expressed by Manitoba Conservation. It is important to reiterate, as addressed in our presentation, that **LP Swan Valley already operates the most comprehensive ambient air monitoring program in the industry**. Also, to suggest that the sampling frequency for parameters such as MDI, phenol and hydrogen cyanide be increased to a weekly schedule does not recognize

the fact that this sampling is highly specialized and must be carried out by experts from Saskatoon, or that the modeling predicts that the maximum ground-level concentrations of these parameters will be well below applicable criteria, and even substantially lower at the monitoring locations. Instead, LP suggests evaluating improvements to the formaldehyde sampling program, such as the collection of 24-hr samples as done in other jurisdictions, and to use these results as a surrogate for identifying potential impacts on air quality for the parameters currently measured on a quarterly basis. LP is willing to discuss this option with the CEC and Manitoba Conservation as part of the evaluation of the application and the permit amendment process.

Finally, Mr. Sigurdson claimed that the Community Liaison Committee (CLC) "...agreed that these (ambient) stations would provide little useful information and would need to be moved". **In fact,** while Mr. Sigurdson did express his concerns with respect to the location of the air monitoring stations at the February 5, 1996 and April 15, 1996 CLC meetings, there is no evidence that such an agreement was discussed or reached in any CLC meeting records. **In fact**, Manitoba Environment (now Manitoba Conservation) replied at the February 5, 1996 meeting that they were satisfied with the locations. To LP's knowledge, the location of these monitoring stations has not been discussed since 1996.

Dispersion Modeling

Mr. Soprovich suggested that the dispersion modeling analysis "ignores annual variation in the spatial distribution of contaminant levels" because only one year of meteorological data was used. **In fact**, the use of one year of meteorological data is accepted under Manitoba and US EPA dispersion modeling protocols where site-specific data is available. The meteorological data collected by LP Swan Valley's ambient air monitoring network was reviewed and deemed acceptable by Manitoba Conservation prior to the completion of the modeling.

Ms. McCrea claimed that "dispersion will cover a wider area with higher stacks and an increase in emissions". **In fact**, improved dispersion resulting from the installation of the new stack means emissions disperse more quickly, resulting in lower ground level concentrations. Good engineering practices actually suggest that the stack could have been higher, however the selected stack height provides for optimum dispersion to ensure protection of community health and the environment 100% of the time based on a comparison to applicable ambient air quality criteria (AAQC). Also, as demonstrated in the dispersion modeling report, the maximum

ground-level concentrations occur relatively near-field to the plant and are not distributed over a wide area as was suggested by Ms. McCrea.

Health Risk Assessment and Community Health

Mr. Sigurdson and Ms. Kent questioned the validity of the health risk assessment based on the stated IRIS Reference Concentration (RfC) for acrolein, and the use of the CIIT unit risk factors for formaldehyde in place of US EPA IRIS unit risk factors. LP forwarded these comments to Dr. Vickie Tatum of NCASI and her response is attached. With respect to the acrolein RfC value, Dr. Tatum acknowledges that she mistakenly used the Oral Reference Dose (RfD) in her analysis, however this does not change the outcome of the health risk assessment as the maximum predicted annual GLC for acrolein does not exceed the 0.02 ug/m^3 RfC. Regarding the use of the CIIT unit risk factors for formaldehyde, these CIIT factors are, **in fact**, generally used among regulatory agencies worldwide, including Health Canada and the US EPA. Please see the reference list in the attached memo from Dr. Tatum.

Mr. Sigurdson, Mr. Soprovich and Ms. Kent also questioned the objectivity and independence of NCASI in completing the health risk assessment. It is important to understand NCASI's relationship with the forest products industry. While NCASI conducts research on issues that are relevant to the forest products industry, the outcomes of that research are not influenced by the industry. In the past year alone, NCASI has collaborated with the Intergovernmental Panel on Climate Change (UN IPCC), the Food and Agriculture Organization (UN FAO), the World Bank International Finance Corporation (IFC), the World Resources Institute (WRI), WWF Canada, NatureServe, Natural Resources Canada, Environment Canada, US Forest Service, US Department of Energy, US Environmental Protection Agency, US Climate Change Science Program, and the International Union of Forest Research Organizations (IUFRO). Each of these organizations regards NCASI as an independent, credible, objective research organization, and considers that the work they undertake provides a vital contribution to the platform of scientific knowledge available regarding the forest products industry. For that reason, NCASI's work is frequently cited and used as part of the scientific foundation for the development of environment and forestry policy at a national and international level, where industry-specific science and technical knowledge is required for governments to make informed decisions. This contribution can only be valuable if NCASI maintains their independent credibility.

It should also be noted that the health risk assessment is simply a mathematical calculation based on maximum ground-level concentrations (GLCs) and published

risk factors and/or a comparison to applicable AAQC, and is therefore easily verifiable. Finally, **in fact**, the health risk assessment submitted in support of the application was subjected to three levels of review (OHG Consulting, Manitoba Conservation and Manitoba Conservation's TAC), and all reviewers accepted NCASI's conclusions.

Regarding community health issues, Mr. Soprovich suggested that there is a linkage between three unfortunate ALS deaths that have occurred over the past 10 years and the operation of the plant. These suggestions are unfounded and lack any evidence. **In fact**, as LP discussed during its presentation to the CEC, Baseline and Follow-up Community Health Status Studies were carried out in 1995 and 2001, respectively. These studies, unprecedented in the industry, were designed by experts in the field and approved by Manitoba Conservation and its own experts, and concluded that there has been an "increasing and general consensus that the plant has been a good thing" for the overall health and wellness of the community. There is no indication of any negative health impacts on the surrounding community based on these scientific studies.

Finally, Ms. Romak stated that "some residents blew into (a) machine to test lungs before (the) mill (was) built, but nobody ever came back again". **In fact**, as discussed during our presentation, a Follow-up Community Health Status Study was completed in 2001, following a study plan developed by experts in the field that was approved by Manitoba Conservation and its experts. Both the Baseline and Follow-up Health Status Study plans included presentations of study results in the communities and/or to the CLC.

Emissions

A number of the presentations compared the proposed emission limits in the application to the existing RTO emission limits. It must be recognized that LP's current licence already includes approved emission limits on the existing WESP stacks. The emission rates for total VOCs and phenol modeled in the application are equal to the existing limits on the WESP stacks, therefore no increase in emission limits was requested for these parameters. The current combined WESP limit for formaldehyde is 1.0 g/s and for benzene is 0.02 g/s, so the requested increases in the application are substantially less than what was presented by members of the CCV. It should be reiterated that the availability of representative data used to develop the original limits in 1994 was extremely limited, while the proposed new limits are based on both site-specific and industry-wide data collected over the past 15 years

using the most current test methods developed specifically for the wood products industry.

Ms. McCrae provided a definition for VOCs that states they are precursors to ground-level ozone and smog. **In fact**, VOCs will only contribute to ground-level ozone and smog where sufficient NO_x is available to allow this reaction. The following text is excerpted from the US EPA's Regulatory Impact Analysis for ozone (http://epa.gov/ttn/ecas/regdata/RIAs/2-ozoneriachapter2.pdf):

> Ozone occurs both naturally in the stratosphere to provide a protective layer high above the earth, and at ground-level (troposphere) as the prime ingredient of smog…Ozone is not emitted directly into the air, but is created when its two primary components, volatile organic compounds (VOC) and oxides of nitrogen (NO_x), combine in the presence of sunlight. VOC and NO_x are often referred to as ozone precursors, which are, for the most part, emitted directly into the atmosphere….The rate of ozone production can be limited by either VOCs or NO_x. In general, ozone formation using these two precursors is reliant upon the relative sources of hydroxide (OH) and NO_x. When the rate of OH production is greater than the rate of production of NO_x, indicating that NO_x is in short supply, the rate of ozone production is NO_x-limited. In this situation, ozone concentrations are most effectively reduced by lowering current and future NO_x emissions (emphasis added), rather than lowering emissions of VOCs. When the rate of OH production is less than the rate of production of NO_x, ozone production is VOC-limited. Here, ozone is most effectively reduced by lowering VOCs. In urban areas with a high population concentration, ozone is often VOC-limited. Ozone is generally NOx-limited in rural areas (emphasis added) and downwind suburban areas.

Therefore, based on the science of ozone formation, it is most likely that NO_x emissions resulting from the combustion of natural gas in the RTOs, rather than the VOC emissions without the RTOs in operation, will be the main contributing factor to any formation of ground-level ozone in the vicinity of the plant.

Mr. Sigurdson and Ms. Kent referenced the Canadian Council of Ministers of the Environment (CCME) Canada-Wide Standard (CWS) for benzene as justification for maintaining the RTOs, however their references are not complete and/or are taken out of context. The CWS for benzene reads as follows:

> "This CWS represents a balance between the desire to achieve the best health and environmental protection possible and the feasibility and costs of reducing the emissions that contribute to elevated levels of benzene in ambient air (emphasis added). The primary long-term air quality management goal for non-threshold toxicants like benzene is to reduce exposure to the extent possible and practicable (emphasis added)…".

The use of the terms "balance", "feasibility", "costs" and "practicable" suggests that the CWS does not require an absolute reduction in or elimination of benzene emissions in all circumstances, but allows for the consideration of the potential environmental and economic impacts of doing so. Since the maximum ground-level concentrations for benzene without the RTOs are well below the AAQC for Alberta and Quebec (recall that Manitoba does not have benzene AAQC) and the cancer risk associated with benzene exposure without the RTOs is virtually non-existent, the additional environmental and economic impacts of operating RTOs to further reduce benzene is not justifiable under CWS.

The Benzene CWS was also designed to address certain sectors recognized as significant contributors to national benzene emissions. CWS Phase 1 specifically targeted Oil & Gas, Transportation, Petroleum, Chemical Manufacturing, and Steel Manufacturing, and Phase 2 targeted additional reductions from these and other specific sectors. There is a reference in the Phase 2 co-benefits section regarding the impact of reducing benzene from wood products through the CWS for Particulate Matter (PM) and Ozone, primarily achievable through a better understanding of combustion practices. However, the largest opportunity in Phase 2 is indicated to be from "residential wood combustion and non-gasoline transportation sources". Wood products manufacturing is therefore not considered a major source of benzene emissions targeted for reduction under the Benzene CWS. It should also be noted that the application of the Benzene CWS Phase 2 (best available pollution prevention (P2) and control techniques) applies only to new and expanding facilities in those sectors identified, which again does not include wood products. That being said, LP Swan Valley has, **in fact**, implemented the latest P2 in the OSB industry, reducing emissions *at the source* without needed additional controls (please see the discussion on Pollution Prevention below).

Ms. Kent also stated that "formaldehyde and benzene both meet the definition of toxic substances under Schedule 1 of CEPA". While this is a factual statement, it is important to understand what a toxic declaration under CEPA means in practice and application. Essentially, a toxic declaration under CEPA requires that Environment Canada and Health Canada, within two years of the declaration, propose at least one

instrument (regulations, guidelines and codes of practice are some examples of CEPA instruments) to establish preventive or control actions for managing the substance and thereby reduce or eliminate its release into the environment, with an additional 18 months to finalize and publish the selected instrument. **In fact**, no instruments developed under CEPA for either formaldehyde or benzene directly target emission reductions from the forest products sector. However, to reiterate LP's stated position in its application and during the presentation, if a federal program for emission reductions from the forest products industry is developed for any parameter, including formaldehyde or benzene, LP will naturally comply with such a program as it will be applied equally across the entire sector.

Finally, according to CCME, the measured average annual rural benzene concentration at 14 National Air Pollution Surveillance (NAPS) sites was approximately 0.5 ug/m^3 from 1994 to 2003 and was relatively unchanged over that time period. By comparison, the modeled maximum annual average GLC under the proposed emission limits is 0.0355 ug/m^3, or approximately 7% of the national rural annual average. Based on these modeling results, ambient benzene concentrations near the plant will continue to be consistent with or below national rural averages.

Licence Enforcement

Mr. Sigurdson suggested that "enforcement of the licence" was a difficult task. **In fact**, the plant was subjected to an extremely high level of scrutiny by Manitoba Conservation during the initial stages of construction and operation, with compliance inspections conducted on a nearly bi-weekly basis. During and since that time, LP Swan Valley has continuously demonstrated our credibility, integrity and transparency with both Manitoba Conservation and the community, and the frequency of inspections has been adjusted accordingly.

Mr. Sigurdson suggested that the Manitoba government supported "dumping" of wood waste around the community, which led to the Concerned Citizen's decision to leave the committee. **In fact**, on February 16, 2000, Manitoba Conservation terminated the approval that allowed excess wood residues to be provided to agricultural producers, and required the submission of both short- and long-term wood residue management plans. This action by Manitoba Conservation, which occurred well in advance of the Concerned Citizens' decision to formally withdraw from the CLC in 2003, ultimately led to the $26 million investment in the new wood-fired dryer energy system and single-pass dryers with exhaust gas recirculation. By that time, LP had also worked with Manitoba Agriculture and Manitoba Conservation to develop a highly successful program of providing excess wood

residue to local ranchers as an effective food supplement. While this program was unable to continue as the facility achieved the desired fuel balance, the project provides a concrete example of LP's commitment to working with local interests and stakeholders to develop unique solutions to address issues as they emerge.

Public Participation and Transparency

Ms. Romak stated that "the public was not informed that the RTOs had been shut off on an interim basis". While the interim approval is outside of the scope of the CEC's review, it is important to reiterate that, **in fact**, LP followed the regulatory process established in Manitoba's *Environment Act* in applying for both the permanent and interim shutdown of the RTOs. Also, LP informed the members of both the CLC and the Stakeholders Advisory Committee (SAC) of the approval to shutdown the RTOs shortly after the interim licence was received from Manitoba Conservation.

Ms. Romak also provided quotes from LP's website, including "spirit of openness and transparency", "gathering concerns and input from members of the community" and "high level of communications", suggesting that LP Swan Valley has not lived up to LP's own corporate commitments. **In fact**, LP is a member of the local CLC, which was designed expressly for this purpose and was one of the first of its kind for LP. The CLC was established in 1995 and is still in effect to this day. The CCV was a member of the CLC from its inception until their formal withdrawal in 2003. The Terms of Reference for the CLC have been previously provided to the CEC. LP now participates in a number of similar committees in communities in which it operates across North America.

Pollution Prevention and Alternative Strategies

The virtues of reducing emissions at the source, or Pollution Prevention (P2), were extolled by a number of the presenters. LP is fully in agreement with this concept and, **in fact**, has adopted the principles of P2 extensively in practice. One such example is the $26 million investment in new dryer technology, which received an Honourable Mention at the 2005 CCME Pollution Prevention (P2) Awards. There have been numerous additional process improvements implemented over the past 13 years, all of which have led LP Swan Valley to be one of the most efficient manufacturing operations in the company.

Mr. Sigurdson, Mr. Soprovich, Ms. Jonsson, Ms. Romak and Ms. McCrea suggested that other control alternatives, such as Regenerative Catalytic Oxidizers (RCOs) and biofilters, should be installed. **In fact**, the application submitted by LP Swan Valley

OSB clearly demonstrates all AAQC are met 100% of the time and that health risks are virtually non-existent or characterized as no adverse effect based on the proposed emission limits, thus eliminating the need for any additional control equipment. That being said, what has not been assessed by the presenters is the application of these technologies. While these may be viable alternatives in some applications, RCOs and biofilters have not been utilized to control emissions from OSB dryers, which are the major contributor to the maximum GLCs determined by the dispersion modeling. LP has previously presented information in this regard to the CEC panel.

Mr. Soprovich referenced the California Air Resource Board (CARB) legislation limiting formaldehyde emissions and suggested that this is evidence that the "world is moving away from using bonding agents containing formaldehyde because of the health effects". **In fact**, the CARB rule is related to off-gassing limits from finished product, not from processing operations, and the application of this regulation does not extend to OSB. This is evidence of **the fact** that formaldehyde releases from the resins utilized in OSB manufacturing are not of concern due to their low free-formaldehyde content. As discussed during our presentation and in meetings with the CEC, LP Swan Valley OSB already uses the lowest free-formaldehyde content phenol-formaldehyde (PF) resins available in the industry.

LP also finds it interesting that Ms. McCrea suggested the use of MDI as one of the resin alternatives to reduce emissions, and that this appeared just one page after she misleadingly claimed that MDI was the "chemical that blew up in the Bhopal incident" (the chemical released in Bhopal was not MDI but a pesticide called methyl isocyanate (MIC)). **In fact**, LP Swan Valley OSB has used MDI in the core layer of its product since its first day of operation, contributing to emission reductions at both the press and dryers. Additionally, the potential for other resin alternatives as identified by Mr. Sigurdson and Ms. McCrea, such as soy-based adhesives, is an interesting opportunity to the industry as a whole and continues to be explored by LP and others. However, these technologies are as yet unproven in commercial application.

Miscellaneous Issues

While forestry-related issues are obviously irrelevant to the application currently under review, the claims by Ms. McCrea that LP pays "the lowest stumpage rates in North America and (has) the last remaining forest rights in a Manitoba provincial park" are simply not true. **In fact**, LP is currently among the highest stumpage rate payers in Canada, with Quebec, Ontario, Saskatchewan, Alberta and BC all having

lower rates. Also, **in fact**, Clause 7 of Environment Act Licence 2191, which covers LP Swan Valley's forestry operations, specifically prohibits LP from harvesting hardwood within the Duck Mountain Provincial Park boundaries. Again, while these issues are not relevant to the CEC's review of the application, it does point to the gross inaccuracies presented by the CCV and BFN in an attempt to discredit LP.

Any reference to, comparison to, or application of US EPA regulations to any facility in Canada is irrelevant. As discussed during presentations to the panel, Canadian and US regulatory systems differ greatly in their design and application. The US has adopted a pollutant-specific, technology-based, one-size-fits-all approach, whereas the Canadian system is more science-based and allows for the consideration of site-specific information and other impacts. The application under review by the CEC demonstrates compliance with all applicable Manitoba and Canadian regulations, guidelines and criteria.

Ms. Jonsson stated that "Ontario is in the process of developing air emission standards to bring their emissions under control while Manitoba appears willing to allow an increase in emissions in our province." While the Ontario regulatory framework is not applicable to LP Swan Valley, an understanding of that framework demonstrates that the licensing conditions in Manitoba are, **in fact**, more stringent. Ontario Regulation 419: Air Pollution Local Air Quality (O. Reg 419/05) only establishes point of impingement (POI) ambient air quality standards and criteria that facilities, through the use of dispersion modeling, must demonstrate compliance with. Similarly, LP Swan Valley is required to demonstrate that all Manitoba AAQC will be met through dispersion modeling, however LP Swan Valley also has emission limits imposed on its operations through its Environment Act Licence, and has committed to continuing the ambient air quality monitoring program even though modeling demonstrates that all AAQC will be met. By any measure, the compliance requirements imposed on LP Swan Valley are greater than those required in Ontario or any other jurisdiction in Canada. It is also worth mentioning that none of the five operating or curtailed OSB facilities in Ontario is required to operate RTOs in order to meet the requirements of O. Reg 419/05.

There was a recurring theme throughout a number of the CCV's presentations that LP Swan Valley's application was submitted solely in an effort to achieve financial relief due to the current economic situation, and that it was done so under the threat of permanent mill shutdown. **In fact**, as was addressed at length during our presentation and as was confirmed by those members of local governments that made presentations at the meeting, LP has been discussing this possibility with

Manitoba Conservation and the Community Liaison Committee since 2001, well before the current downturn in housing markets.

While Mr. Sigurdson's presentation of CBC's "Ill Winds" is irrelevant to LP Swan Valley's application on numerous fronts, it should be pointed out that the control equipment mentioned towards the end of the report as being installed at LP's Dawson Creek facility just one month prior to the filming are WESPs. This is the equipment that LP Swan Valley initially proposed for the plant in the 1994 EIA and will be the same equipment that will be maintained pending approval of the application. LP Dawson Creek operates WESPs to this day and does not have or require RTOs in order to comply with its emission limits or to meet all applicable AAQC. Also, LP Dawson Creek has developed a strong compliance record and an excellent rapport with the regulators and the community over the past 10 years.

Ms. Kent referenced the National Ambient Air Quality Objectives for PM. While no increase in PM emission limits has been requested in the application, **in fact**, LP Swan Valley will be maintaining the most advanced PM controls available in the industry, and conducts continuous ambient PM_{10} monitoring.

Finally, Ms. McCrea read into the record a letter from Ms. Sophie Ledoux of Camperville. While LP appreciates Ms. Ledoux's concerns regarding the impact on traditional blueberry patch locations, **in fact**, the dispersion modeling clearly indicates that all Manitoba AAQC will be met 100% of the time (the AAQC are set at levels at which there is no adverse affect on human health or the environment), and that all maximum ground level concentrations occur very near-field to the plant. The potential impact of plant emissions on ambient air quality does not extend to the areas referenced in her letter (Cowan and The Kettle Hills).

Conclusion

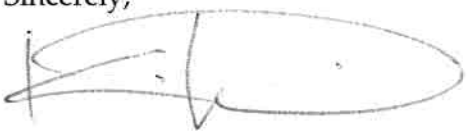
Through their presentations, the Concerned Citizens of the Valley and the Boreal Forest Network attempted to create doubt about LP's credibility and integrity, and to characterize the application as an either/or choice - either jobs or the environment, either VOCs or GHGs, either RTOs or nothing. However, the application and supporting materials presented by LP and others demonstrate, based on facts, credible information and science, that this is clearly not the case. **In fact**, approval of the application will:

- ensure protection of human health and the environment as demonstrated through achievement of all AAQC and health risk criteria, **AND**
- reduce greenhouse gas emissions by approximately 12,000 tonnes per year, **AND**
- reduce nitrogen oxide (NO_x) emissions, which could contribute to the formation of ground-level ozone, **AND**
- contribute to the sustainability of the community by providing employment and an influx of over $35 million annually to the local economy, **AND**
- contribute to the sustainability of LP by ensuring it is competitive within the Canadian wood products industry.

LP is confident that the CEC panel will recommend to the Minister that the application be approved based on these merits.

We look forward to continuing to work with the CEC on this important project.

Sincerely,



Kevin Warkentin
Senior Environmental Project Manager
LP Canada Ltd.

Cc: Kevin Betcher, Plant Manager, LP Swan Valley OSB
Allan Hambley, Plant EHS Manager, LP Swan Valley OSB

ncasi

NATIONAL COUNCIL FOR AIR AND STREAM IMPROVEMENT, INC.
P.O. Box 1490, Station B, Montreal, QC H3B 3L2

Conseil national pour l'amélioration de l'air et des cours d'eau
C.P. 1490, succ. B, Montréal, Québec H3B 3L2

Vickie Tatum, Ph.D.
Project Leader
(352) 331-1745
vtatum@ncasi.org

August 14, 2009

Mr. Allan Hambley
Louisiana-Pacific Canada Ltd.
Swan Valley OSB Mill
439 West Wood Rd
Swan River, MB, R0L 1Z0

Dear Al,

In response to the question you had about the acrolein RfC, yes, the RfC shown in the acrolein table in my letter of July 1, 2009 is incorrect. It looks like I copied the RfD into the table instead of the RfC. The IRIS RfC for acrolein is indeed 0.02 $\mu g/m^3$. This does not change my assessment of the risk associated with acrolein emissions, though. The annual Max GLC for acrolein still does not exceed the RfC, which is the most conservative of the listed ambient exposure limits.

In response to the question you had about the cancer potency value for formaldehyde, it is not true that the cancer potency value used in the USEPA IRIS assessment is the one that is, today, generally in use among regulatory agencies. In fact, the CIIT derivation is preferred by, among others, Health Canada[1], the German MAK commission[2], the German Federal Institute of Risk Assessment[3], and US EPA[4,5] itself.

I hope you will find this helpful. If you have any questions about this or if I can be of further assistance, please let me know.

Sincerely,

Vickie Tatum

Vickie Tatum, Ph.D.
Project Leader

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[1] Health Canada. 2001. Priority Substances List Assessment Report: Formaldehyde.
[2] German Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area. 2006. Formaldehyde, official English translation, Occupational Toxicants: Critical Data Evaluation for MAK Values and Classification of Carcinogens. Vol. 17.
[3] BfR. Toxicological Assessment of Formaldehyde. Opinion of BfR No. 023/2006.
[4] USEPA. 2006. Health Effects Information Used in Cancer and Non-Cancer Risk Characterization for the 1999 National-Scale Assessment (NATA).
[5] USEPA. 2006. National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products; List of Hazardous Air Pollutants, Lesser Quantity Designations, Source Category List; Final Rule. 40 CFR Part 63. Fed. Reg. 71:8341-8387.