CLEAN ENVIRONMENT COMMISSION

# LOUISIANA PACIFIC STRANDBOARD PLANT

# AIR EMISSIONS REVIEW

Volume 1

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Held at the Westwood Inn

Swan River, Manitoba

Tuesday, July 28, 2009

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APPEARANCES

Clean Environment Commission

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| Mr. Edwin Yee | Chairman |
| Mr. Ken Wait | Member |
| Mr. Ken Gibbons | Member |
| Ms. Patricia MacKay | Member |
| Mr. M. Green | Counsel to Commission |
| Mr. Doug Smith | Report writer |
| Ms. Cathy Johnson | Commission Secretary |
| Ms. Joyce Mueller | Assistant |

Reporter:

CECELIA J. REID

Official Examiner, Q.B.

INDEX OF PRESENTATIONS

TUESDAY, JULY 28, 2009
UPON COMMENCING AT 9:00 A.M.

THE CHAIRMAN: Good morning ladies and gentlemen. I would like to welcome you to this Clean Environment Commission public meeting. I would like to call this meeting to order. I have a few opening comments to make and then we will proceed.

Just by way of introduction, my name is Edwin Yee. I'm a member of the Manitoba Clean Environment Commission, as well as chair of this panel on the potential health and environmental effects of air emissions at proposed new levels from the Swan Valley Oriented Strandboard Plant.

With me on the panel are to my immediate left, Patricia MacKay, and at my far left, Ken Wait, and on my right Mr. Ken Gibbons.

The Clean Environment Commission has been requested by the Minister of Conservation to conduct an investigation into the potential health and environmental effects of air emissions at proposed new levels from the Swan Valley Oriented Strandboard Plant and provide advice and recommendations.

The terms of reference from the

Minister direct the Commission to provide members of the public an opportunity for input regarding Louisiana Pacific's proposal at a public meeting in the affected community.

The meeting scheduled for the next two days are intended to gain advice and feedback from Manitobans, and in particular from the community and affected stakeholders. We will not be meeting on Thursday as there is sufficient time for presenters both today and tomorrow.

The public meetings are open to any groups or individuals to make a presentation to this panel on issues related to the potential health and environmental effects of air emissions at proposed new levels from the Swan Valley Oriented Strandboard Plant.

For the most part, presentations are limited to 15 minutes. Exceptions will be made in some cases where a presenter needs more time, but this must be arranged with us prior to the presentation. Presenters will also be required to take an oath promising to tell the truth. Presentations should be relevant to the mandate given to the Commission by the Minister relating to air emissions from the plant and related health

and environmental issues. Presentations and comments relating to forestry management plans or other such matters are outside the mandate of this review. If a presentation is clearly not relevant, I may rule it out of order.

Members of the panel may ask questions of any presenters during or after the presentation. There will be no opportunity for other presenters to question or cross-examine presenters.

These public meetings are only one component of this investigation. In addition to the public meetings, the Clean Environment Commission has engaged a consultant to assist us in the investigation. The results of the consultant's work have been posted on our website. Anyone is invited, groups or individuals, to provide comments on the consultant's report if they wish so. Written submissions will also be accepted. Information as to how submit written suggestions or to provide relevant information is available on our website. The deadline for receipt of written submissions is September 1st.

At the end of our investigation we will consider all of the information and

submissions, and provide advice and recommendations in a report to the Minister on the potential health and environmental effects of air emissions at proposed new levels from the Swan Valley Oriented Strandboard Plant.

Now some administrative matters. If you wish to make a presentation today and haven't already indicated to the staff, please register at the table that's located at the entrance to this room.

As is our normal practice, we are recording these sessions, and we ask all presenters to use the microphone at all times, as well as to speak clearly. Verbatim transcripts will be available on line shortly following the meetings. You can find the link from our website.

And finally, in respect to cell phones, I would ask that they be turned off, or at least that the ring tone be turned off. And if you must take a call, I would ask that you please leave the room.

And finally I would ask Cathy Johnson to read the instructions for this meeting.

MS. JOHNSON: This is by way of letter from the Minister of Conservation to the chair of

the Clean Environment Commission, dated March 26, 2009.

"Dear Mr. Sargeant, I announced on March 16th that I would be asking the Clean Environment Commission to review Louisianna Pacific's request for permanent alterations to its Swan Valley Oriented Strandboard Plant's Environmental Act Licence. As you are aware, the CEC initially reviewed this plan when it was first proposed in 1994. Included in the original CEC report was a recommendation that the company operate pollution control equipment, including RTOs. Louisiana Pacific's recent application states that the applicants have reduced emission levels since the plant was first constructed. Therefore, pursuant to section 6(5) of the Environment Act, I'm asking that the CEC conduct an investigation and provide advice and recommendations to me regarding Louisiana Pacific's request.

I have provided the terms of reference which will help guide your exercise. LP's current licence has a requirement for the Director of Environmental Assessment and Licensing to review the terms and conditions of the licence prior to June 1, 2009. So completion of the CEC process in advance of this date would be welcome.

Thank you for undertaking this important task."

THE CHAIRMAN: Thank you, Cathy. With that we will begin our public meetings, and the first presenters will be Louisiana Pacific. I would ask the presenters to come forward to the presentation table, and as I've indicated, please speak into the microphone as clearly as possible, and introduce yourselves.

MS. JOHNSON: Plus be sworn in. Please state your names for the record?

MR. BETCHER: Kevin Betcher, plant manager.

MR. HAMBLEY: Al Hambley, environmental health and safety manager.

MR. WARKENTIN: Kevin Warkentin

regional environmental manager.

(Kevin Betcher, sworn)

(Al Hambley, sworn)

(Kevin Warkentin, sworn)

THE CHAIRMAN: Please proceed, gentlemen.

MR. BETCHER: Good morning, Mr. Chairman, commissioners, members of the panel, ladies and gentlemen of the audience. I would like to thank you for the opportunity to present our application to amend emission limits of the Swan Valley OSB plant.

Today we will show, using fact and science, that even with removal of the RTOs, we will still ensure protection of human health and the community. We will also demonstrate that our application will result in greenhouse gas reductions by about 12,000 tonnes.

The other part we will be covering today is the fact that this is also an economic focus from the sense that it makes environmental sense, it also makes good business sense to make these changes.

This application was subjected to numerous levels of expert review, including

Manitoba Conservation's environmental engineer, third party consultants, a technical advisory committee within the Manitoba Government which included Manitoba Health, with no significant concerns raised.

We will also show that we followed a process in submitting our application for emission amendments, and approval of our application will contribute to the sustainability of our facility within the valley as well as the community.

Just a brief overview of our summary presentation today. We will be doing company information, RTO background and history, review of the application, ambient air quality, environmental benefits, and a socio-economic review.

Who are we? LP, founded in 1973, 26 OSB mills, 14 of these -- sorry, 26 mills, 14 of these are OSB mills. We have six mills in Canada, four of these are OSB, four joint ventures, 4600 employees and 1400 employees in Canada. So essentially one-third of our employees and one-third of our mills are located in Canada. So we definitely have a presence in Canada.

This is a pie chart indicating our

market share, LP at 24 per cent. We are the largest producer of OSB in the industry. I would like to point out that we have competitors in Canada such as Tolko, Ainsworth, Grant Forest Products and Weyerhaeuser. They have mills in the U.S.A. and Canada, but in the Canadian operations they do not operate RTOs -- and Norbord, sorry.

Just a look at our corporate vision and values, and these apply to every facility in LP. To be a respected, profitable and growing manufacturer of building products, to be a supplier of choice because of our quality products and reliable services, and to be an employer of choice offering a safe, fun, ethical, challenging and rewarding place to work. We will obey all legal requirements, communicate honestly and truthfully, act with integrity, be fair and respectful in our workplace. And probably the most important bullet, especially during today, is safety, environment and quality are core values at Louisiana Pacific.

We feel that over the past 13 years of operation at this facility, we have proven ourselves. We have established a good rapport with the regulators and the community and the

people we do business with on a daily basis.

In regards to stewardship, a sincere respect and care for our shared environment is at the core of everything we do. Natural resources are critical to our organization. They not only allows us to manufacture the premium building products that we're known for, they help us sustain livable communities and high quality of life. And I guess for me personally, this is a pretty important statement being born and raised in the valley, I want to ensure that our future generations enjoy the same things that we do now, outdoors, hunting, fishing. And our employees, the vast majority are also born and raised in the valley and we are local, we live here too.

Stewardship: Good environmental stewardship is vital to strength, profitability, and sustainability of our company and the communities where we operate. In order to keep this valley prosperous and provide opportunity for our residents, we need to ensure that the plant is competitive and sustainable without sacrificing environmental core values.

As I said previously, we are local. We are living in the valley, raising our families

in the valley, breathing the air that everybody else is breathing.

I would like to say at this time, this initiative is not driven by corporate LP, this initiative is driven by Swan Valley OSB. We started down this road back in 2001, when we realized there is a better way to operate our facility. There is environmental benefits with greenhouse gas reductions. And we knew back in '01 that there is a better way to do it and it was the right thing to do.

We would also like to acknowledge community concerns, but the fact of the matter is, if we are going to have any adverse effect on the health of the community or the environment, we would not have proceeded with this. It is plain and simple as that.

Approval of our application will still ensure community health and the environment. And I think you are going to hear that a few times this morning because it is a pretty important theme for our presentation.

I have given a little bit of the corporate overview at the start. I just want to touch on our facility here in Swan. We have been

operating in the valley for over 13 years. Many of our employees were there from the first shovel turned at that facility, and I'm looking at a few of them in the audience today where they have helped build the mill, so there is a lot of pride in our establishment.

We produced our first board in January 21st, 1996. We employ at normal operating level 175 employees, and that includes our FRD operations. We provide employment and opportunity for valley residents. Most of the people at the facility either lived here or moved back to the valley for the opportunity. I'm one of those people actually.

We contribute over $35 million a year annually to the local economy. We are an active supporter of local community initiatives. Examples of these are the proposed wellness centre, the junior hockey team, golf course expansion. We provided artificial ice for the Minitonas arena back in '95, I believe. We work with various service clubs such as the Lions, as an example. School groups, we are active in supporting an Enviro-thon, which is part of the regional secondary school program. Ducks

Unlimited, Sport Fish Enhancement are also organizations that we work with. We also provide summer student employment to university kids, well paying, four months of work for people who are going to university. So LP does bring a lot of value to the community. We also recently donated or provided some of our land at the site for Field of Jubilee, which is a donation of grain to charitable organizations. So we do bring a lot more than just jobs.

At this point I would like to turn the presentation over to Mr. Al Hambley, who is our site environmental health and safety manager, who will be doing the bulk of the presentation.

MR. HAMBLEY: Can you hear me? Good morning everyone. My job here is to discuss the science behind our proposal. I will talk about our dispersion modeling and health risk assessment that really forms the basis of our application and demonstrates very clearly that we will not be having an adverse effect on community health and environment.

I think right off the start I have to define some of the terminology that you are going to hear throughout the presentation. Volatile

organic compounds, or VOCs, you have seen this around and discussed at length. It is the collective name given to compounds that are gases at room temperature which contain carbon as a primary element. And I will say that they are a natural component of the wood drying process. Formaldehyde and benzene are two substances that are species of VOCs.

Also greenhouse gases, I mean, we've heard a lot of this term in the literature over the last several years. They are gases that absorb heat radiated from the earth. The man-made greenhouse gases are carbon dioxide, nitrous oxide and methane. In Canada the total national greenhouse gas emissions are predominantly associated with production or combustion of fossil fuels.

Next slide. Nitrogen oxide, you can see it is a little bit lower on the screen. They contribute to ozone, smog, acid rain and fine particulate. They occur naturally in the environment but they are also generated by the combustion of the fossil fuels. And we will show that we are actually reducing nitrogen oxides with our proposed amendments.

Continuing on, ambient air, you will hear me mention that term, that's just the air outside. Ambient air quality criteria or AAQC, you are going to see this term throughout the presentation. Many provinces, including Manitoba, have established Manitoba ambient air quality criteria. And this is an important term. They are set at the level where no adverse effect is observed in people or the environment. And the ambient air quality criteria is tied back to our health risk assessment and our dispersion modeling. You are going to see that throughout the presentation, so please -- and I will remind that you that, again, they are set at the level where no adverse effect is observed on people or the environment.

Next point, air quality dispersion modeling, again, one of the basis of our presentation and proposal. They are computer generated mathematical models used to predict the ground level concentrations. I will mention here that there are many different models available and they are generally considered conservative or that they err on the side of caution, or to put it another way, they generally overestimate ground

level concentrations.

And resins, the terms phenol formaldehyde and MDI, they are two resins we use in our process, and you will see those terms throughout the presentation as well, so just recall that they are resins used in our process.

To get to the heart of the matter, I think we have to describe exactly what a RTO is. They are essentially large incinerators. They incinerate the dryer gas as it enters the unit. It goes up through the unit into the combustion chamber. The combustion chamber is about 1400 degrees Fahrenheit and incinerates the gases coming in. The gases are primarily water vapour but they do contain VOCs. I should mention that they are not -- while they are very effective in what they do, they are not 100 per cent efficient, there are VOCs that are emitted.

In addition, because of the combustion of natural gas, there is also a tremendous amount of carbon dioxide, as Kevin mentioned 12,000 tonnes annually are emitted, plus nitrogen oxide, which are products of combustion.

Ahead of the RTOs, and we will see this in a second here, we also have additional

pollution control equipment on our drives in the form of electrostatic precipitators. I wouldn't want to leave anybody here with the impression that we are simply getting rid of our pollution control equipment. That's not the case. We will still have the highest level of pollution control equipment in our industry in Canada.

Just to give you an idea of how much energy these units use, and it is strictly -- all we use our natural gas for is to operate these units. The amount of energy used is nearly two times the usage of all households in Swan River combined, so a tremendous amount of energy used to combust dryer gases.

This is a just a very rudimentary process flow diagram that shows the items in green are all of the pollution control equipment that will exist, even after the RTOs are removed. And the lighter blue-green slide shows our new equipment that I'm going to discuss in a little bit with the new dryer energy system.

And then just to get into a discussion now of why we have RTOs, and I can't remember if I actually said what RTO means, it stands for regenerator thermal oxidizer, which is why I'm

going to use RTO.

In 1994, the original environmental impact assessment that was done on our mill determined that all applicable air quality criteria are met without RTOs. However, during the Clean Environment Commission hearings at the time, LP were caused to install RTOs due to concerns regarding uncertainty of new industry in the valley. There was quite a bit of uncertainty, as I understand, I wasn't here, but uncertainty around a new industry coming to the valley. And LP was in some difficulty at the time in the U.S. at the time, so their reputation wasn't the best, so I think the concerns were warranted.

I also believe that at the time the Canadian mills built after Swan were going to have to have RTOs, or any existing mills were going to be retro-fitted with RTOs. If LP had RTOs, I think the thought was it was just going to be sort of standard issue and the rest of the industry in Canada was going to come around. In fact, it hasn't been the case. After 13 years, we are still the only wood products facility in Canada with RTOs. So there is no other RTOs in Canada.

I think it is an important distinction

here, wood products facility, there is over 1,000 wood products facilities in Canada, all with drying processes, all emitting VOCs. We are still the only facility, OSB or other, that has RTOs. There is 25 OSB mills in Canada, 8 OSB constructed after Swan, the majority of them are larger. We can only assume then that these facilities are being operated in compliance with their ambient air quality standards without RTOs.

This map just shows where the RTOs are situated, or sorry, not where the RTOs are, where the OSB mills are situated across the country. Again, we are the only facility in Canada with RTOs. This is Swan down here in the centre of your screen. Interesting to note that just across the border, an hour and a half down the road, is a larger competitor mill that does not have RTOs.

In fact, no Canadian jurisdiction is advocating RTO technology because of the negative environmental impact, namely the greenhouse gas emissions and NOx emissions. And it is unlikely there will ever be RTOs in Canada. In fact, I think from what this is saying here is that RTOs seem to be contradictory to what the provinces and Canada is trying to do in terms of reducing

greenhouse gases.

And I guess the last thing to stress is they are not required to meet ambient air quality criteria. And again, you will recall that ambient air quality criteria are set at the level of no adverse effect to people or the environment.

MR. WARKENTIN: I think it is important to add that, again, on the eight facilities that have been built since Swan, or any new facility that will be proposed today in Manitoba or any other jurisdiction would not include RTOs, just because of the environmental impact you see from them.

THE CHAIRMAN: Excuse me, can I just interject one quick question here for clarification, so I don't forget? You mention there is 1,000 facilities in the wood products industry that also emit VOCs. What sort of sources are these, in terms of are they all -- they are not all RTOs, they don't have RTOs, but are they dryer processes?

MR. WARKENTIN: Yeah, we would be talking panel plants, lumber kilns, any process where you are heating up wood there is going to be VOCs.

THE CHAIRMAN: So there would be a wide range of variability between these various facilities as to how much VOCs?

MR. WARKENTIN: Yeah. So we just pulled out the OSB mills in particular, but there are a number of panel plants across Canada too.

THE CHAIRMAN: Thank you.

MR. HAMBLEY: And as I said in an earlier slide, we will still have the highest level of emission control in Canada without RTOs, and that will include wet electrostatic precipitators and high efficiency cycles of the dryer energy system. There are other forms of particulate removal, but WESPs or wet electrostatic precipitators are the most efficient. There is also dry electrostatic precipitators and multiclone on the bark fired thermal oil heater, and we have five baghouses at various stages of the flake handling process.

Next slide. Just to summarize this last section, that is sort of the introduction to what we are going to talk about. Again, we are the only wood products facility in Canada with RTOs, and even without RTOs, we will still have the highest level of emission control equipment in

Canada.

At this point I'm going to talk about some of the advances in the process technology that have allowed the removal or shut down of the RTOs. Next slide.

In 2004 we installed a state of the art drying and heat energy system. It was a $26 million upgrade. The technology results in reduced emissions through essentially lower dryer inlet temperatures, which is accomplished by recycling dryer exhaust back to the inlet of the dryer and back to the clean energy system. It is also a gentler drying process. The old process was triple pass dryers where the flake is going through the drum three times. In this case the flake just goes through in a single pass, much less tumbling, a much gentler drying process, much more consistent heat, and much more efficient than the older version. The end result is lower VOC emissions.

MR. WARKENTIN: I just want to add here that this is the equipment that every new mill would install in order to reduce those emissions at the source. There is a very important part, as we discussed yesterday during

the tour, that's missing from your consultant's report, and that is the recycled gas, recycle exhaust gas loop that results in the lower ambient temperatures. So that's a very, very critical component of this technology that's missing from that report.

MR. HAMBLEY: As Kevin mentioned in his introduction, we started down this path eight years ago. A 26 million-dollar upgrade is not something that we can simply do overnight. We recognized early on there was a need to address the wood residue imbalance. We had an extremely large pile of bark that we needed to deal with, so we saw the opportunity to optimize the resource and balance our energy demands. At the same time we saw the potential to eliminate RTOs through that new drying technology, which would result in reduced emissions of greenhouse gases and nitrogen oxides.

We initiated discussions with Manitoba Conservation back in 2001, as we started on this, with this project. And we are members of a community liaison committee, which is a committee that is in place to ensure that concerns from the community and with LP, vice versa, are addressed.

There is open dialogue. The community liaison committee consists of the RM of Swan River, the RM of the Town of Swan River, the RM of Minitonas, the Town of Minitonas, ourselves. Manitoba Conservation chairs the committee and we participate in that with the committee. I will note that the Concerned Citizens of the Valley were members of the CLC until they decided to withdraw from the committee.

Next slide, please?

MR. WARKENTIN: I just want to add, just emphasize again at this point, there has been some mention that it is, you know, LP is doing this for economic reasons now with the market downturn, and that's not at all the case, and we can demonstrate that. There are minutes and such that prove this. We have been talking about this very publicly through the community liaison committee with Manitoba Conservation for eight years now. Now with the market situation we have accelerated our proposal, but it is something that we were going to do regardless.

MR. HAMBLEY: Just to leave you with the last bullet point, again, we have the latest process technology in place to reduce emissions.

And as I mentioned, that's the single pass drying technology and heat energy system that was installed in '04.

So I'm going to now get into some of the details of our request to Manitoba Conservation for these proposed amendments. Those amendments to the environmental licence include requesting an increase in the emission limits from the press, it includes formaldehyde, benzene, MDI and VOCs. And we are also requesting an increase in emission limits from our wet electrostatic precipitators from formaldehyde and benzene.

In November of last year we submitted our application. Next slide.

MR. WARKENTIN: Increasing these limits will allow us to shut down the RTOs, so these are the specific points that are in front of the CEC for review. This application is available in public records. It is also available through the CEC website, if I'm not mistaken.

MR. HAMBLEY: Proposed modifications include the construction of a single 49.5 metre dryer for the electrostatic precipitator stack. This stack height results in optimum dispersion, meaning lower or lowest ground level

concentrations. We could have modeled a higher stack, but our research determined that a higher stack would not result in any greater, or lesser ground level concentrations I should say. So it is the appropriate height for optimum dispersion. All other emission sources remain unchanged. Even without RTOs, again, we will still have the latest emission control technology in Canada, in the industry in Canada.

THE CHAIRMAN: Excuse me, all other emissions sources will be changed because you will be reducing the amount of greenhouse gases, correct?

MR. WARKENTIN: Licensed emissions.

THE CHAIRMAN: Licensed, okay.

MR. HAMBLEY: I think it is important to note that our proposed emission limits are more representative of the industry now than they were in 1994. Back in 1994, they were developed based on very limited information, including engineering estimates and emission factors. There was obviously no site specific data available and very limited industry data, and there were many assumptions made, assumptions in what types of things go into the dispersion models, but also how

the mill is going to operate.

In 2009 our proposed emission limits are based on actual site specific data. We have been operating it for 13 years. We have installed the latest drying technology. And we now have the benefit of extensive industry data through various groups like National Council of Air and Stream Improvement. U.S. EPA has developed a lot of emission data that we drew on. And there has also been industry specific stack testing methods developed and made available to us. So we believe that our application is much more robust now based on 13 years of site specific data and operational experience.

MR. WAIT: Commissioner Wait. I had a question in regards to other sources of formaldehyde within the plant. Is there any off gassing from the OSB board that's being stored within the facility, and how is that recovered?

MR. HAMBLEY: You know, we do some indoor air quality monitoring for formaldehyde, and those results are very, very low. So I don't think, if I'm understanding you correctly, that the board after its been through the pressing and it is just sitting in the warehouse --

MR. WAIT: That's correct.
MR. HAMBLEY: -- we don't see much emission whatsoever. There are some emissions that come off the pressing operation because we do add phenol formaldehyde, very, very low formaldehyde resins in our -- in the development of the board, so there are some emissions that come off the press in that regard. Does that answer your question?
MR. WAIT: Yes, thank you.
THE CHAIRMAN: Before you leave that, could I just ask a follow-up on that? I realize in our discussions with you, you mentioned we are not addressing future emissions here, but I was just wondering if there is -- and I realize that Louisiana Pacific has probably a health and safety program, do you monitor in terms of these fugitive emissions in-house, the kinds of worker exposures, or is there anything like that done at the facility?
MR. HAMBLEY: Annually, we do primarily dust exposure and noise. Again, we have done quite a bit of area monitoring that doesn't suggest that we have high levels of formaldehyde that employees could be exposed to. But during

our monitoring programs, we do monitor the area for formaldehyde emissions.

THE CHAIRMAN: Thank you.

MR. HAMBLEY: And we can make that information all available to you.

THE CHAIRMAN: Thank you very much.

MR. HAMBLEY: Next slide.

Importantly, as I mentioned, we continue to meet high standards. Even with proposed changes, we will still be subjected to more compliance conditions than any other OSB mill in Canada. And this is a reference, appendix C from the consultant's report. I will reference this as the SENES report, but Mr. Chairman, would you -- could you sort of define what that SENES report is for me?

THE CHAIRMAN: Essentially, for those folks that aren't familiar, we have asked our consultant, SENES, to provide us with information on the background of the OSB industry in Canada. So in that perspective, we asked them to look at, in particular, regulatory environments of North America, as well as looking at just generally what happens in the OSB industry and the types of technology that's applied, both process wise and

pollution abatement wise. It is available, by the way, on our website.

MR. HAMBLEY: Thank you.

THE CHAIRMAN: I'm assuming some people have probably looked at it already.

MR. HAMBLEY: Those types of things that we monitor for specifically include MDI, hydrogen cyanide, phenol, benzene, nitrogen oxides and VOCs. There is only one other facility that we are aware of that is regulated on benzene, and their limit is six times higher than our proposed limit. So, again, we will continue to meet high standards and all of the proposed limits that we are requesting conform with any applicable industry standards in Canada.

MR. WARKENTIN: I will just add or reemphasize that there is no other facility in Canada that has the list of criteria that we do in our permit currently, that we are not asking to eliminate in terms of needing to comply with the emission limits, or to conduct monitoring for, or to conduct ambient monitoring for. These kinds of things are absolutely unheard of in the industry, So we will, in fact, meet the highest standards in Canada.

MR. HAMBLEY: As Kevin mentioned in his introduction, we have followed the process, we have heard and read some criticism that perhaps we circumvented the process, and this is simply not the case. We followed the process that is outlined in the Manitoba Environment Act. We applied for an alteration to the development, which included filing a proposal. Manitoba Conservation determined that it is a major alteration to the development, resulted in a screening process where the proposal was reviewed by Manitoba Conservation, the public and Manitoba Conservation's technical advisory committee, which is comprised of several branches of the government, including Manitoba Health. Public review was conducted through media advertisement and placement of the proposal in the public registry. There is a 30-day public consultation period, and in this case ours was extended an additional two weeks as people requested more time to review the information. The Minister called for a Clean Environment Commission review and recommendations, and that's why we are here today. Ultimately, we will have a licensing decision by Manitoba Conservation at some point in the future.

Next slide. Once again, just to leave you with some important items that I have discussed, our proposed limits are based on site specific data, I can't emphasize that enough. And our proposed limits conform with industry standards in Canada.

This next section now, I will show in detail how we meet all applicable ambient air quality criteria, and also which of course means that we -- there will be no adverse effect on the environment or community health. So this is a very important part of our proposal and our presentation. So I will go through that in some detail now.

It is important to define what our dispersion modeling is up front. It predicts the maximum ground level concentrations for comparison to ambient air quality criteria. It demonstrates the proposed emission limits will meet all Manitoba ambient air quality criteria, it will show that, and ensure protection of community health and environment.

MR. WARKENTIN: It should be emphasized here, it predicts the maximum, the absolute maximum for various time periods that I

will also talk about right away, but these are -- the maximum that the model predicts will be out there.

MR. HAMBLEY: Our modeling approach was approved up front. The model we used was a conversion called ISC-PRIME. As I mentioned earlier, there is many models available, we used ISC-PRIME. It is referenced in Manitoba's guidelines for air dispersion modeling, and it was approved of in advance, well in advance before we used it. I mean, we wouldn't want to get to the point where we submit our model and find out that it wasn't accepted. So it was approved in advance.

We don't have the in-house expertise for modeling. It is done by an outside consultant. We used Olsson Associates, based in Colorado. And Manitoba Conservation determined that results were acceptable. If fact, they did two levels of review. They utilized their environmental engineer, plus their own external air quality expert, and deemed the results acceptable.

Next slide. And now we get into the modeling results. And this again, I will

emphasize this is without RTOs, so maximum ground level concentrations meet all applicable ambient air quality criteria without RTOs. And we understand that the community could be concerned with certain species of VOCs, namely formaldehyde and benzene, because they are considered carcinogens. MDI once again is one of the resins that we use in our process, so we want to discuss that in a little bit more detail. But I just want to emphasize, and we will show you this, we will demonstrate this, formaldehyde is below ambient air quality criteria 100 per cent of the time. And same with benzene, below ambient air quality criteria 100 per cent of the time. And same with MDI, below ambient air quality criteria 100 per cent of the time.

MR. WARKENTIN: That's important, because as you will recall from Al's discussion about what the ambient air quality criteria mean, those are established at the level where there was no adverse effect on people or the environment. So, if you can prove that you can meet those 100 per cent of the time, you can demonstrate no adverse effect.

MR. HAMBLEY: Now, this is going to be

difficult I think for the people towards the back of the room. But this is really a summary of what we are going to describe in some detail here. This compares Manitoba ambient air quality, this compares our modeling result to the Manitoba air quality criteria. And we have also included U.S. EPA ambient standards. So formaldehyde, for example, is one of the contaminants of most concern, as I said, it is a carcinogen, so people could be concerned about that. But our maximum ground level concentration, and as Kevin said, that's the worst one hour out of an entire year, is 56.9 micrograms per cubic metre versus the Manitoba criteria of 60. So as we approach the Manitoba criteria, we do not exceed it. And this is the only substance that comes close to the ambient air quality criteria.

Benzene, the maximum predicted ground level concentration by the model, 2.1 micrograms per cubic metre over one hour, versus a standard of 30. And Manitoba does not have air quality standards for benzene, so where those standards don't exist, we used from other jurisdictions, in this case Alberta, which is 30, so 2.1 versus a standard of 30. Over a 24 hour period, maximum

ground level concentration, .6 is the predicted level of concentration versus a standard of 10. Again, Manitoba does not have air quality standards for benzene, but Quebec does, so we used the Quebec standard.

Then similarly for the rest of these substances, hydrogen cyanide, 3.9 maximum predicted versus a standard of 40, for an annual period of .05 versus a limit of 3. MDI, 1.9 maximum predicted ground level concentration over a one hour period versus a standard of 3; .09 versus a standard of .5. For nitrogen oxides, 147.8 over a one hour period versus a standard of 400. As I mentioned before, we will actually be reducing nitrogen oxides. 24 hour period, 64 and a half versus a standard of 200. The rest of these are all Manitoba air quality criteria now. Annually, maximum ground level predicted concentration, 8.5 versus a standard of 100. Phenol, maximum predicted level of concentration, 38.5 versus a standard of 63. Particulate matter of 39.7 versus a standard of 120. An annual basis, 6.6 versus a standard of 70. Particulate matter, the finer components of dust, 32.4 versus a standard of 50, and 22.3 versus a standard of

30. So in all cases well below the applicable air quality criteria.

And in the last column, because there was mention that there are no -- first of all, there are no Manitoba or Canada air quality standards, that's simply not the case. Manitoba has very stringent air quality standards or guidelines.

The suggestion was that the U.S. EPA was much more stringent. That's not the case. In most cases there is no ambient air quality standard in the U.S. Where they do exist, Manitoba's are as strict or more strict.

Anything to add?

MR. GIBBONS: Before you leave this chart, I'm wondering, and I don't know if you have these numbers at the tip of your tongue, so maybe it could just be a ballpark figure, but what you are showing in column one are the maximums, typically the worst one hour in the course of a year. But if we were looking at formaldehyde and comparing it to the Manitoba criteria, of course, the average or the more typical output would be considerably lower. Can you give us a ballpark figure, say for formaldehyde, some of the ones

where you get a little bit close on the worst hour kind of scenario? How much variability would there be in the sense that, for example, formaldehyde might normally be a lot less than 56.9, or does it run close to 56.9 fairly often?

MR. HAMBLEY: No, it doesn't. That's clearly the worst one hour. But if I can proceed over the next couple of slides, I hope I can answer your question exactly. Is that okay?

MR. GIBBONS: That would be fine.

MR. HAMBLEY: Next slide, please?

Because formaldehyde did approach the ambient air quality criteria, this next series of slides is going to focus specifically on formaldehyde. And this is a frequency graph, this shows how often that maximum one hour ground level concentration will occur. So on the Y axis we have the maximum one hour concentrations, and on the bottom we have the number of hours in the year. Here is the air quality criteria at 60. You can see this blue area is the model predicted ground level concentrations over the course of the year. The maximum one hour occurs up here. And again, it is only for a very, very rare occasion. For the most part, 99 per cent of the time it is

less than 30, or one half the ambient air quality criteria. And I think if I was to ballpark an average, it would be probably around 10. Does that answer your question?

MR. GIBBONS: Thank you.

MR. HAMBLEY: So I guess just to emphasize, this is one hour out of an entire year which is 8,760 hours. Statistically speaking, a one hour event is a very, very rare occurrence.

MR. WAIT: I had a question. Seeing the one hour averages 56.9, what would the maximum level within the one hour period be, approximately? The average is, like I say, 56; what would the highest value within that hour period be?

MR. WARKENTIN: That's not how the dispersion model works. You look at, first of all, the applicable criteria is averaged over a one hour basis. So that's how that limit is established. The model then predicts that maximum one hour out of that entire year. So I don't think -- well, you may be able to pick out those individual periods, but the averaging period is what you compare to the standard.

MR. WAIT: Is there any condition in

the operation of the plant that would correlate to that 56.9?

MR. HAMBLEY: Actually, that's a really good point. Because that maximum one hour ground level concentration assumes that the mill is running 365 days of the year at its maximum proposed emission rate. So we have never run 365 days of the year. So we might hit that once in two or three years.

MR. WAIT: So, in theory, over the course of the life of the plant, it is never going to get higher than the 56.9, if that's a maximum?

MR. HAMBLEY: That's what our modeling predicts.

MR. WARKENTIN: And even that statistically is a very rare occurrence.

THE CHAIRMAN: One second, I think you have answered the question, I'm not sure if everyone else picked this up. So the 8,548 hours is the total hours in the year, and it assumes that your plant is operating the entire time of the year?

MR. HAMBLEY: Yes.

THE CHAIRMAN: Thank you.

MR. HAMBLEY: Next slide. As I said,

we are just sort of focusing on formaldehyde here because it was the one substance that approached the Manitoba ambient air quality criteria. This is essentially the output of our dispersion model which shows the ground level concentrations and how they are dispersed from the plant over the course of the year.

The maximum ground level concentration occurs in this area here, which is just this side of the Duck Mountains. Again, the maximum ground level concentration, and I know you won't be able to read this in the back, but it is 56.857 versus the air quality criteria of 60. Again, that's the worst or maximum that occurs once out of an entire year.

We've also put this wind rows up in the corner. The wind rows shows the frequency of winds in a particular area over the course of a period of time, in this case it was a year. This shows that, these individual spokes indicate the longer the spoke, the more frequent the wind. So, the predominant winds occur in this area, the southwest, west southwest quadrant, the winds go in this direction, from here to here. There is also a significant easterly component going this

way. The maximum ground level concentration occurs when winds are in this quadrant here. So winds are coming this way. But they occur very, very infrequently, probably three to five per cent of the time. So that combined with very specific meteorological conditions, the fact that the plant is running at its maximum emission rate for 365 days of the year, also the fact that we are right on the edge of the Duck Mountains, so that change in elevation is also an influence, and that's how you arrive at a maximum ground level concentration down in that area. That's about as much as I know about our modeling.

MR. WARKENTIN: It is probably that change in elevation that dominates that result. That's why you get the result to the southeast even though your predominant winds are from the southwest. There is about a 60 metre elevation difference between the plant and that. And an elevation map will show very clearly right across the bottom that you are elevating towards us, that you are increasing in elevation.

MR. HAMBLEY: Next slide. So this is an aerial photograph of the area, this is the plant here, and here is where that maximum ground

level concentration occurs, again, once out of an entire year. It just shows, it is as the crow flies about three kilometres south of the plant.

Next slide.

MR. WARKENTIN: I think what it also shows is that there has been some, you know, stated concern that we are talking far flung impacts, and that is not the case at all. They are fairly localized, even looking at the maximum, it is fairly local to the plant.

MR. HAMBLEY: Now we will look at frequency graphs for the remainder of the parameters. This one in particular, MDI, again, we are below Manitoba ambient air quality criteria 100 per cent of the time. That criteria is 3, which is the solid red line at the top. The blue area is the maximum predicted ground level concentrations, so well below that 100 per cent of the time.

For benzene, one hour, again, Manitoba doesn't have a standard so we used Alberta, below applicable air quality criteria 100 per cent of the time. There is the limit of 30, and there is -- the blue area was the measured concentrations.

MR. WARKENTIN: It is pretty low, I will have to duck so you guys can see it.

MR. HAMBLEY: Next slide. This is the benzene, 24 hour again. Here is the applicable limit and here is the maximum predicted, very, very low.

Next slide. Hydrogen cyanide, below air ambient criteria 100 per cent of the time. A limit of 40, here is the maximum predicted emissions rates.

Next slide. Phenol, 63 is the air quality criteria, again, the blue area is the model prediction, so well below ambient air quality criteria.

Next slide. Similarly for nitrogen oxides, well below the criteria 100 per cent of the time. It is 400. The predicted emission rate is down here, our prediction ground level concentrations I should say.

Next slide. Nitrogen oxide measured over a 24 hour period, or predicted over a 24 hour period, well below the criteria of 200.

Next slide. Total suspended particulate, again the blue areas are predicted ground level concentrations versus a limit of 120,

well below.

Next slide. Now we are looking at particulate matter and the final particulate -- what is the word that I'm looking for, Kevin?

MR. WARKENTIN: Final particulate matter, inhalable particulate.

MR. HAMBLEY: Below Manitoba and U.S. EPA 24 hour air quality criteria 100 per cent of the time. It shows again that Manitoba has more stringent standards than the U.S. EPA. Here is our maximum predicted ground level concentration versus a limit of 50, well below that and well below the U.S. EPA national air quality standard.

Same result for PM, 2.5, well below Manitoba air quality criteria and the U.S. EPA criteria as well.

So just to summarize that whole discussion here, the modeling demonstrates that the proposed emission limits will meet all ambient air quality criteria 100 per cent of the time. By doing so, meeting the ambient air quality criteria, if you recall the definition, no adverse effect on people or the environment, by meeting the ambient air quality criteria, we ensure protection of community health and environment.

Once again it is one of the tests. If we can not meet ambient air quality criteria, we would not have proceeded with our proposal.

Now, the second aspect of our proposal and demonstrating protection of the community health and environment, and that is the health risk assessment.

So once again, define what a health risk assessment is, it calculates a risk level based on the maximum ground level concentrations predicted by the dispersion model, which is everything that I have just described in the last few minutes, and compares that to the ambient air quality criteria, and in some cases human exposure data bases.

The health risk assessment demonstrates that the risk associated with the proposed emission limits ensure protection of community health and environment.

Next slide. Our proposal, and specifically the health risk assessment underwent some rigorous external review, including Manitoba Conservation's technical advisory committee reviewed the health assessment in March, and there were no issues or concerns identified. And I

think this is a very important quote from Manitoba Health, one of the members of the TAC.

"In general it seems to make sense that LP Canada Ltd., Swan Valley OSB plant be held to the same emission limit standards as that of other similar industries throughout the province and country."

In addition, OHG Consulting, which is a Winnipeg based environmental health consulting firm, reviewed our health risk assessment in June and agreed with our conclusions.

Next slide. Those conclusions are, the health risks associated with cancer -- and I think it is important once again that we understand the concerns particularly with formaldehyde and benzene that are identified as human carcinogens -- the health risk associated with cancer was determined to be less than one in a million, and the one in a million risk level is accepted worldwide.

The non-cancer risks, and I will describe these in the next couple of slides, the non-cancer risks are characterized as no adverse effect. And they are applied to the ambient air

quality criteria.

So what does one in a million mean? And this is a quote from the commissioner of the U.S. Food and Drug Administration. I think it is quite an interesting quote and really good description.

"The risk of one in a million is often misunderstood by the public and media. It is not an actual risk, i.e. it is not expected that one out of every million people will get cancer if they drink decaffeinated coffee. Rather, it is a mathematical risk, based on scientific assumptions used in risk assessment. When the FDA uses the risk level of one in a million, it is confident that the risk to humans is virtually non-existent."

Next slide. So what does no adverse effect mean? Recall that the ambient air quality criteria are set at levels at which there is no adverse effect for people or the environment. Our dispersion modeling showed and demonstrated that all ambient air quality and criteria are met 100 per cent of the time. So therefore the term no

adverse effect is used.

Next slide. This summarizes the risk levels associated with those parameters that were modeled and part of the health risk assessment. There are levels associated with proposed emission limits. So here, for example, we have formaldehyde again. And yes, it is a carcinogen. The health risk, because it is a cancer causing agent, it is subject to a national mathematical calculation that was determined to be seven out of one billion. So that is three orders of magnitude lower than the one in a million risk level that is considered to be virtually non-existent.

Similarly for benzene, again, it is a carcinogen, but the health risk level was determined to be 2.3 out of ten million, which is an order of magnitude more than the one in a million risk level considered to be virtually non-existent.

MR. WARKENTIN: And those are based on the maximum ground level concentrations that the model derives. So again it may not be what the average is, or what you are really exposed to, but this is based on the maximum ground level concentration from the modeling.

MR. HAMBLEY: Fossil fuels, those remaining substances that are non carcinogens, hydrogen cyanide, MDI, et cetera, et cetera, they are all characterized as no adverse effect, you will recall, because 100 per cent of the time we meet all air ambient quality criteria.

Just to provide a little bit of perspective, so we have compared our risk levels to every day risks. The lifetime risk of all cancers, two in 100, the chance of a motor vehicle accident, 1.7 in a hundred, the chance of a home accident, 8 in a thousand. You know, comparing the risk levels identified in our health risk assessment, proposed formaldehyde limit, 7 in 1 billion, proposed benzene limit, 2.3 in 10 million. So those health risks associated with our proposed emission limits are considered to be virtually non-existent.

THE CHAIRMAN: Al, can I just ask, what references are you using here, in terms of life time all cancers, is that a Health Canada or -- I'm just wondering what the sources the data are?

MR. HAMBLEY: My source was OHG Consulting in Winnipeg, so I can find those

specific items if you like.

THE CHAIRMAN: If it is possible, we would like to know the reference sources.

MR. HAMBLEY: Sure. Okay.

THE CHAIRMAN: Thank you.

MR. HAMBLEY: I think it is important to note that early on, and likely due to some of the uncertainty with a new facility and industry coming to the valley, and some of the issues that LP was having in the U.S., it was a requirement of our licence to conduct a health status study. So in 1995, we conducted a baseline community health status study, where in this study the health was broadly defined to include physical, psychological, social and economic and environmental well-being, so a very broad definition of health.

We are unaware of any other similar study in at least our industry or in Canada, so it is virtually unprecedented at the time, no one else was doing this. But LP agreed to do this or was mandated to do this as part of the licence.

In 2001 there was a follow-up community health status study, and it was based really on a health risk perception, or health

perception survey. It was undertaken to determine whether or not the mill was perceived to have an effect on health. For better or worse, it is measured against the baseline. And the conclusions of that study were that there has been an increasing and general consensus that the plant is a good thing. So that goes back to the very broad definition, people consider the plant to be a good thing in the valley. And in 2006 Manitoba Conservation determined that no further health studies were warranted.

Anything to add to that?

MR. WARKENTIN: I think what might be important there is, as far as the follow-up study is concerned, is that the study plan indicated that if the results of the perception survey suggested that there were concerns or people perceived that their health had been negatively impacted, that there would be further actual field work done to confirm that, much in the line of what was done in the baseline study in 1995.

THE CHAIRMAN: Could you, for the sake of everyone present, perhaps just sort of describe what sort of testing was done in the baseline health study versus the perceived health risks in

the follow-up study? Like what sort of physical testing was conducted for the baseline study?

MR. WARKENTIN: Primarily a pulmonary function study was done. So there was a control community, Benito was the control community, at the time about the same size community with the same demographics. So that was then used to establish what that baseline would be. I believe there was a lung function study as well. So those were the two elements. And there was also, pardon me, part of that baseline study included a record search of hospital admissions. And so all of that would have been evaluated as part of the follow-up had the perception survey identified a potential concern.

THE CHAIRMAN: Thank you.

MR. HAMBLEY: Next slide. Did you mention the $500,000 spent on this?

MR. WARKENTIN: This was not, conducting these health status studies, because they are -- because there was a risk, was not a minor undertaking by any means. So there has half a million dollars in health studies there, a significant investment in that work.

MR. HAMBLEY: Just to summarize the

last section in a couple of bullet points, again, the health risk assessment demonstrates cancer risks are virtually non existent, non-cancer risks characterized as no adverse effect. And this is without RTOs. The health risk assessment demonstrates that the proposed emissions will ensure protection of community health and environment.

As I said before, if we could not meet this test, if we thought there was going to be an effect on people's health and the environment, we would not have pursued this further.

So up to this point I have described the dispersion modeling and the health risks, which are all predictions, and now I just want to talk a little bit about proof on the ground. We have been operating and monitoring the ambient air quality program since 1995, and I want to review that now.

We are operating a comprehensive air monitoring program to collect meteorological and air quality data in the vicinity of the plant. We have two sites. Site one is located a kilometre and a half northeast of the plant, and I will show you a picture of that in a second. Site two is

located two kilometres west of the plant.

Next slide. This is a picture showing location of the plant and the area of monitoring site number one and monitoring site number two. Again, I have shown the wind rows which shows the frequency of winds in a particular area. Again, the longer spokes indicate more frequent winds. So the predominant winds are in the southwest quadrant, meaning they blow this way. And then there is a strong easterly component as well, which means the winds are coming this way.

So there has been some criticism about where our sites were located, and I will say that they are appropriately located. You locate the monitoring sites in the areas of the prevailing winds, again, which is this way, at the closest residence. And this is Shirley Rose's property here.

And then site number two, again, situated in one of the -- sorry, the secondary prevailing wind, and directly in the middle between the plant and sort of the main population centre, which is Minitonas. So, again, these monitoring sites are appropriately located.

MR. WARKENTIN: I will just add that

this meteorological data, the wind rows that Al is referring to, that's based on information collected at our own meteorological station located near the plant. It is actually at monitoring site number one. There has been comment about whether the sites were appropriately located based on information used in 1995 in the environmental impact assessment. In fact, the wind rows here are very, very similar to that. And so it does demonstrate that the sites were appropriately located and still are appropriately located. In fact, there is stronger -- a larger easterly component to the winds now than there was then, then so monitoring site two is more appropriate than originally thought.

THE CHAIRMAN: Excuse me, just for my clarification, essentially you are saying that the monitoring stations have been appropriately located based on wind direction and population, but not necessarily predicted maximum ground level concentrations based on modeling?

MR. WARKENTIN: You would not locate a station necessarily where the maximum occurs if there isn't residents or another important local receptor there to locate by. The point is, 30 to

40 per cent of the winds come from that southwest direction towards monitoring site number one. Then you are monitoring the ground level concentration, the maximum ground level concentration which occurs now to the southeast. Wind directions are only 3 to 5 per cent towards that direction out of an entire year.

THE CHAIRMAN: So could you perhaps explain, I think I understand it but I'm not sure if everyone in the room understands it, the reason why the dispersion model maximum ground level concentrations aren't used to locate monitoring stations, versus it makes more sense to locate them in the prevailing wind directions and populated centres? Can you explain that for everyone else?

MR. HAMBLEY: Well, the maximum ground level concentration occurs down in this area for one hour out of an entire year. The winds in this case are very infrequent, so the chance of occurrence is very, very low. Whereas here predominant winds, as Kevin said, 30 to 40 per cent of the time traveling this way, they are located in an area where you are going to measure an impact, over the course of time you are going

to measure an impact there. It is very unlikely you are going to see anything there.

MR. WARKENTIN: You typically do see these monitoring networks operated, they will just operate for a month or two. They are put in place for a period of time, typically five years from I have seen, from my experience in the industry, 13 years, 15 years now is nearly unheard of. But the fact is, we are actually fairly lucky to have this information to support our application. But, yes, as Al said, you would look for that place where you are likely to see the impact. If there is going to be an impact, you want to make sure that you are measuring it appropriately, which would be the nearest residence on the down wind side.

THE CHAIRMAN: It is probably also important to note that what you are measuring at the monitoring stations is in compliance with the ambient air quality criteria which is based on human health risk, not generally environmental risk.

MR. WARKENTIN: And also what we are measuring at the ambient air quality station is air quality influenced by any source in that area. It is not necessarily the mill contributing to

that measurement, it is anything that's happening that might contribute to air quality in that area.

THE CHAIRMAN: Thank you.

MR. WARKENTIN: Especially living in an agricultural community, that's one of the major impacts.

MR. HAMBLEY: So we have been measuring air quality since 1995. This is a picture of site number one, which shows where we also collect meteorological data. We sample particulate matter continuously. We sample VOCs, formaldehyde and benzene on a six day sampling frequency. This is not something that we select, we don't pick the days we sample. We sample according to the national air pollution schedule, which is a six day cycle. And this is consistent with the network of monitoring stations across the country that all sample on the same schedule.

Phenol, MDI and hydrogen cyanide are monitored quarterly, and these results are submitted to Manitoba Conservation on a quarterly basis as well. So they are kept aware of everything going on in the facility.

MR. WARKENTIN: It is important to point out that the monitoring is managed by an

expert third party experienced in doing this. The plant is responsible for some of the data collection, a lot of it is conducted by this consultant, in particular the phenol, MDI and hydrogen cyanide monitoring is done by the consultant. And also just going back to, you know, we are very fortunate that we have this information to support our proposal. There are very few of these monitoring networks out there associated with the wood products industry, I only know of a few and they typically happen in B.C. They typically only look at a few contaminants, formaldehyde in particular. There is no network that I'm aware of that would be looking at phenol, MDI, hydrogen cyanide, benzene, total VOCs. That scope of work is unheard of. Again, this has been no small investment, there has been approximately $2 million spent on this ambient monitoring program since its inception. So in hindsight, I would say that was a wise investment.

MR. HAMBLEY: This is some of the results we collect at the ambient air monitoring stations. This is measured average monthly 24 hour ambient particulate matter concentrations. The concentration is on the Y axis, and here is

the time period on the X axis. In all cases we are below the Manitoba 24-hour ambient air quality criteria. It might be difficult to see, but there is a blue line and a purple line. The blue line is LP1, the purple line is LP2. In all cases they mirror each other or follow each other, which is indicative sort of regional sources. If there was an impact from the mill, given that the predominant winds are from the southwest, you would see a much higher measured value at LP1. But in fact they follow each other, which suggests again regional impact. There is also a seasonal component to this which is likely due to harvesting activities.

Next slide. Kevin just reminded me that, once again, this dotted line at the top is the U.S. EPA national air quality standards. So just to reiterate, Manitoba standards are much more stringent than the U.S. EPA.

As I said, we also measure one hour formaldehyde concentrations at the two stations, and again in all cases we are below the ambient standard of 60. There are measured peaks. In most cases the winds are blowing away from the station, so the measured concentration could not

be from the mill. But we do see some peaks that the mill could have been a contributor, but, again, we are well under the ambient guideline.

THE CHAIRMAN: Just one quick question. Do you have any idea why there are specific peaks at certain times of the year? Is it in relation to the plant operation or any other activities?

MR. HAMBLEY: Well, I mean, I would suggest that there are other sources of formaldehyde, regional sources. For example, stubble burning, you are going to see measured levels of formaldehyde, formaldehyde in particular. Does that answer your question?

THE CHAIRMAN: Yes. Thank you very much.

MR. WARKENTIN: I think what is telling here is that, again to reiterate, we never had a measurement exceeding the ambient air quality criteria. The peaks where there are wind directions identified, those are just to show exactly when the wind was not blowing towards that station and yet formaldehyde levels were detected that really are the same magnitude as other peaks where the mill may have been one of the

contributors. Again, we are not measuring necessarily what the mill is emitting or the mill's impact, we are measuring what is the ambient air from any source from any area. So the magnitude of these is the same whether, or can be the same potentially, whether the wind is blowing toward the station from the mill or away from the station. So that's the point here.

Also, it is important to note that for the most part you will see the two stations essentially mirroring each other, so they are measuring the same amount. Predominant winds again being from the southwest 30 to 40 per cent of the time, you would expect to see that blue peak or the blue line higher than the pink line or the purple line more regularly than that, if the mill was having that rate of impact.

THE CHAIRMAN: Thank you.

MR. HAMBLEY: This shows the measured 24 hour ambient benzene concentrations. We had -- there were some measured concentrations early on in 2001, seemingly related to the same fall period in a single year. The highest measured concentration, the winds were blowing away from the station so the mill could not have been a

contributor in this lower peak. You know, there may have been some contribution, we are not sure. I think it is important to point out that down here we did have a measured peak, but the mill was down at the time, so we could have not been contributing to that. And the vast majority of the time, I mean, our X axis is 0.003, which is limited detection for benzene. The majority of the time we are well below detection levels.

MR. WARKENTIN: There are some 400 sample points represented in this graph, about 1600 a year.

MR. HAMBLEY: Measured 24 hour, we have not had a single detect over the course of our monitoring period. 24 hour phenol concentrations, well below ambient air quality criteria.

MR. WARKENTIN: In the case of that specific event, the wind was not blowing towards that station.

MR. HAMBLEY: Similarly, for ambient hydrogen cyanide concentrations, well below Manitoba ambient air quality criteria. Again, we suspect a regional source, I couldn't tell you what it could be. But the fact that there is a

measured concentration when the mill was curtailed tells me that we are not contributing to that.

MR. WARKENTIN: And those two specifically identified, again, were dates when winds were blowing away from the station when that concentration was measured.

MR. GIBBONS: Question, if I may? In the early years of these charts, so these are times when the RTOs were operating, what would you expect these charts to look like with the RTOs off, for example, with your new system in place, do you have a ballpark idea there?

MR. HAMBLEY: Well, in fact, we could go back to formaldehyde. This is likely indicative of background conditions. These two spikes here were measured during a period of time when the RTOs were off, and in both cases winds are blowing away from the ambient air stations, so the mill could not have been contributing. So I don't expect we will see any change over the course of time with the RTOs off.

MR. GIBBONS: Thank you.

MR. WARKENTIN: In fact, it is in our application, the predicted -- while, we have looked at the maximum ground level concentration

to compare to the applicable air quality standard, the application presents what the maximum predicted concentration at the monitoring stations is as well. And it is quite low, it is very low. So that's at the nearest residence predominantly down this side, or location between the mill and the Town of Minitonas. It is in the 5 to 7 microgram range, not the 57.

THE CHAIRMAN: Al, just as a reminder, if you could -- I realize you are coming to the end of a section -- we request a coffee break or refreshment break. We think we are getting a little tired at this point in time, so if you want to just wrap up this particular section, we will take a break.

MR. HAMBLEY: So just to summarize, you know, we looked at our ambient air quality program, the actual measurement of ambient air quality data. The information demonstrates that all ambient air quality criteria are met. And in our application we have committed to continue the ambient air monitoring program to ensure ongoing protection of community health and the environment.

So just, I think it is a good time to

have the break, but I would like to show just one more slide which just summarizes everything that we've demonstrated up to this point. So if you take nothing else away from what I have been close to an hour talking about, we have demonstrated so far, the dispersion modeling demonstrates all ambient air quality criteria are met 100 per cent of the time. The health risk assessment concludes risks are virtually non-existent, or no adverse effect. We have shown that with our continued comprehensive ambient air quality monitoring, that we have demonstrated that all ambient air quality criteria are met. So overall we have demonstrated that the proposed emission limits, without RTOs, do not pose a risk to community health and the environment.

THE CHAIRMAN: Thank you. With that, I suggest about a 20 minute break. We will reconvene in 20 minutes. Thank you.

(Hearing recessed at 10:33 a.m. and reconvened at 10:58 a.m.)

THE CHAIRMAN: I think we will reconvene the meeting now. And I will ask, I guess, Al, you are still on deck here with lots of things, so I will ask you to continue. Thank you.

MR. HAMBLEY: Thanks. So this is where we left, and just described exactly what we had talked about up to this point. And I just want to reiterate that, you know, we have met the test of ensuring protection of community health and the environment. And once again, if we could not meet that test, we would not have pursued this.

We believe our application stands on its own based on the science, and we have demonstrated that RTOs are not required.

So having said all of that, I wanted to discuss now that there is an actual environmental benefit to our proposal in shutting down the RTOs, in the form of greenhouse gas emissions are reduced by 75 per cent. As we've mentioned earlier, RTOs create greenhouse gases, they generate 12,000 tonnes of greenhouse gases each year. That represents just under one per cent of all combustion sources in the manufacturing sector in Manitoba. That may not seem like a lot, but if all of the industry in Manitoba could achieve that level, I think we would be a lot further along in meeting our commitments under Kyoto. 12,000, reducing

greenhouses gases by 12,000 tonnes is the equivalent of taking 2200 vehicles off the road. And we have been lead to believe that this is an extremely important issue to Manitobans and Canadians, in meeting our international greenhouse reduction commitments. And this is our effort towards that.

Next slide. The RTO elimination aligns with international trends, it is consistent with major environmental groups' goals to reduce greenhouse gas emissions and reliance on fossil fuels. These particular groups are openly critical of governments not doing enough to reduce greenhouse gases. We have learned that the Manitoba Environment Act now requires consideration of greenhouse gas emissions for any major development. So as Kevin said earlier, for a new development, a new OSB facility in Canada, I don't believe that RTOs would be a consideration.

We also know that U.S. EPA regulations are evolving to consider lifecycle impacts, including greenhouse gas emissions. And this, once again, is a reference from the SENES report.

Anything to add on that?

MR. WARKENTIN: Yeah, on that last

bullet, again there have been many references to U.S. EPA regulations and such, and comparing that to our application.

First of all, we are in Canada, we are not in the States. We have our own set of regulations. As Al has shown, clearly Manitoba air quality criteria, there are more of them than the U.S. EPA. has, they are much more stringent where they do exist, they are equal to or are much more stringent than the U.S. EPA ones. In fact, I think the U.S. EPA has seen the error of their ways, their approach has been very, very narrow focused. The current system they have does not allow for consideration of any other impacts. It is a very limted scope in how they apply the regulations. The system we have is more advanced, a more holistic view, it allows you to consider all of the impacts of the application of the limits, or whatever technology might be out there. So, as I have said, the U.S. EPA has recognized that the SENES report references how in the next round of MAC review they planned on addressing that.

They have looked at that in the past as well as looked at health risk assessments. And

there are some facilities in the States that we are aware of that have been successful in either shutting down RTOs, or not having to install them, or RTOs or any other VOC controls, or not having had to install them in the first place in order to meet regulations, because of these negative environmental trade-offs.

MR. HAMBLEY: Another benefit to shutting off the RTOs is RTOs emit nitrogen oxides, and as I said in our definition at the beginning, nitrogen oxides contribute to smog and ground level ozone. Ground level ozone is formed when chemicals, including nitrogen oxides, react chemically in the presence of sunlight. Ground level ozone can have detrimental effects on plants and ecosystems by making them more susceptible to disease, insects and harsh weather. As I said, NOx will be reduced by shutting off the RTOs.

One thing the mill was tasked with early on was to look at the possible harmful effects to plants and animals as a result of exposures to mill plant emissions. There was a flora and fauna study which looked at, as I said, possible harmful effects to plants and animals.

In 1995 there was a baseline study

done, and then follow-up studies in '97, 2000 and 2005. It was concluded that emission of ozone precursors, NOx, from the LPC mill at the OSB plant do not currently appear to promote the formation of ozone in the ambient environment at a level considered harmful to plants. There was no evidence of ozone related damage on samples of two common local plants known to be sensitive to ozone, trembling aspen and alfalfa. So even though we are reducing nitrogen oxide emissions, obviously then the conclusions are going to be very similar, but we are committed to doing a flora and fauna study again in 2010.

MR. GIBBONS: A very, very quick question for the information of those of us gathered here today, who was doing -- sorry, who did and who do you project will be doing the future test?

MR. HAMBLEY: TetrES Consultants out of Winnipeg has done it since I have been involved, and I believe they were involved in the baseline. And I have had discussions with them. I suspect it will be them doing it again.

Just to summarize, the benefits in reducing or eliminating RTOs, a 75 per cent

reduction in greenhouse gas emissions, reduction in nitrogen oxide emissions, and these goals are consistent with Manitoba and Canadian commitments.

Just to talk about some other things that the mill is doing to make sure that we are continuing to be sustainable as a mill, continuous process improvement, or continuous improvement is one of the ways LP Swan Valley does business. As I mentioned, in 2004 we invested $26 million on the latest energy system and drying technology. This resulted in a 10 per cent improvement in yield. And Kevin Betcher is going to step up again and just describe exactly what is meant by yield.

It also had lower temperature, single pass drying generates fewer emissions. And this project received honourable mention in 2005 at the Canadian Council of Ministers and the Environmental Pollution Prevention Awards, and we are quite proud of that.

I will turn it over to Kevin quickly here to describe what yield is.

MR. BETCHER: All right. Basically, how we measure our raw material usage in OSB, it is called yield. And basically what this chart

tells you is back in 1997 we utilized about .8 of a cord to make 1000 square feet of OSB.

As you can see over the years, our focus on continuous improvement is obvious. We had a bit of a blip here, but essentially a stair step down to using less of a log to make OSB. Our stewardship wants us to, and our beliefs are saying let's be as efficient with the resource as possible and be stewards of the land.

We were at a 7/1 yield. When we installed a new dryer and energy system you see that resulted in a 10 per cent drop in our yield, the biggest drop in our history as a result of that project. So there is a good benefit from that as well.

The remainder of these years here, basically, it took us a few years to figure out the material balance and the requirements for winter operating and such. So, essentially what that project has got us down to now is around here. We may have improved a marginal amount without the project, but nowhere near the .65 of a cord right now it takes to make 1,000 square feet of OSB. In the saw mill industry they may call that recovery, some industries call it

utilization, but we call it yield in OSB.

MR. WARKENTIN: Overall, it is a 16 per cent improvement over that time period.

MR. HAMBLEY: The other thing that we do, heat energy system and single pass dryers allows us overall to reduce total facility emissions. This is the total facility emissions in tonnes over the course of, since 2002. Total facility emissions is the lighter blue line, and the purple line is due to our wood waste incinerator that we operated because we had to deal with, as I mentioned earlier, a very large pile of excess wood waste that we can not use in our process. So once the new dryer and heat energy system came on line, and we became more closed looped, we used pretty much all of our bark and excess wood as fuel. And the incinerator was just a short term solution to eliminating our large bark pile. And as we used the incinerator less and less, our total facility emissions came back down to the level where this is more indicative of the way we operate. So as we used that incinerator less and less, and our total facility emission dropped as well.

MR. WARKENTIN: The important context

here, as you know, there have been criticisms or claims that LP was one of the largest polluters in the province, and that's what this graph is intended to show. This is the rest of the story. The emissions that are used to suggest that LP was the largest emitter came primarily from the incinerator in that 2002 to 2004 time period. We are well off the chart once that incinerator was removed.

MR. HAMBLEY: Some of the other things we do, reducing emissions at the source, and I've talked about resins, we use the lowest formaldehyde resins available. We use a combination of phenol formaldehyde and MDI resin in our process. Some facilities are 100 percent phenol formaldehyde, which indicates that their formaldehyde emissions may be a little bit higher than ours. We use a combination of phenol formaldehyde and MDI. So we are minimizing resin related formaldehyde emissions from the press.

The use of MDI also allows higher moistures and, therefore, lower drying temperatures to further minimize wood related emissions from the dryers. As we mentioned earlier, lower temperature drying, less VOCs

emitted at the source.

Next slide. So just to summarize, once again, LP Swan Valley continues to optimize the process to reduce emissions at the source.

And I believe that is the end of my time. Thank you very much for your attention. Thank you very much to the audience for listening. And I will turn it over now to Kevin Betcher for some further discussion on the socio-economic impacts and some closing comments.

MR. BETCHER: Thanks, Al. There has been some criticism out in the community that LP is pleading poverty, and that is the reason that we are pursuing this. You know, the fact of the matter is, you know, we started down this road in 2001. That is eight years ago. The capital project which culminated in our application took place in 2003. We commissioned the equipment in '03. I mean, that's five, six years ago. So to say that we are pleading poverty, you know, is not entirely accurate at all. There is environmental benefits from a greenhouse gas perspective to the rate of 12,000 tonnes per year.

It also makes good business sense. We are in a market right now that is severely

depressed. Our facility needs to be as competitive and sustainable as possible within our geographic area in which we operate and to the areas that we ship our product to. I guess the collapse of the market, like we've, I think both Kevin and Al alluded to, the collapse of the market has accelerated this proposal no doubt. We need to maintain our competitive advantage within the industry, but we have to be competitive within LP plants as well. We are somewhat localized here, we need to put our best foot forward in how we are running our mill.

Some of the economic contribution we feel is important to portray, 550 direct jobs as a result of LP. That includes the logging and hauling operations. So significant impact in the valley.

$35 million, we've touched on that earlier as well, $35 million contributed locally. The breakdown on that is 12 million in employee payroll.

In 2007, when we produced normal volumes and had normal logging operations, we paid out $21 million in logging contracts. And we pay out roughly 11 and a half million dollars per year

to maintain the facility. If you add those three together, that's more than 35 million. I would like to make note that 11 and a half million does not all stay in the valley, there are vendors and suppliers that we deal with that are not obviously in the valley, but a significant portion of that 11 and a half million stays right in Swan River Valley.

Another important note, you know, we spent $26 million in 2004 on our dryer energy system and new dryers, and there is a portion of that that stays in the valley as well. People get hired on for term positions with contractors to do some of the construction work, that would be an example. So there is numerous advantages to LP being in the valley.

First and foremost, we have definitely shown today that RTOs are not required to meet ambient air standards. In relation to that, there is a significant competitive disadvantage to LP Swan Valley; 3.2 million annual operating and maintenance expenses, that includes gas, maintenance, electricity; $10 million capital replacement within the next few years, those units have a life span of anywhere from ten to fifteen

years, depending on how you have taken care of the equipment. I may be a little bit biased on this, but our group, including Mr. Boychuk sitting in the audience, has done an excellent job in maintaining that equipment over the years. However, we are in a position within the next few years that we will be looking to replace those RTOs. I don't want to sound like a broken record, but the only forest products mill in Canada with RTOs.

Another important and ironic bullet is we will monetarily be penalized for running RTOs as carbon tax systems, such as they have in British Columbia, carbon markets and/or greenhouse gas regulations are developed. So, essentially we are running this equipment, we could be penalized monetarily for what they are doing.

Next slide, please? I think to show the significance and the impact of the downturn of the industry, I think it has been devastating, Canadian Forest Service data shows that March 31, 2009, 386 forest product mills were indefinitely closed, permanently closed or curtailed. That's over 44,000 jobs, which is huge for Canada.

Since 2006, the volume of North

American OSB has dropped by 50 per cent. I have a chart that will show that shortly, but essentially, normally 26 billion square feet is North American production for OSB; '09 is estimated to be around 13.7, so roughly a 50 per cent reduction. In Canada, 12 of the 25 Canadian OSB mills are permanently or indefinitely closed, so 50 per cent, and many others are in a reduced capacity.

So what is the impact on this? As I indicated previously, normal OSB production volume, this is in billion square feet, around 25 or 26 billion. The downturn started at the end of 2006, with 2007 starting to see the reduction, and you can see '09 being significantly less than industry norms.

So how does this affect Canada? We have talked a lot about the OSB mills in Canada. What this map now indicates is the blue dots on here, there is three of them, indicate LP facilities currently operational. The gray circles indicate competitor mills that are currently operational, and they may have curtailments from time to time like we are experiencing right now at our facility. The

interesting note is the red dots. Those are the ones that are either permanently or indefinitely curtailed. So pretty sad state for the industry.

MR. WAIT: I have a question. Of the ones that are closed, how many of those are Louisiana Pacific facilities?

MR. BETCHER: There is two. Yes, we have two facilities in Quebec that are here and here, that are closed.

MR. WAIT: Is that good, Kevin?

MR. BETCHER: On that topic, yeah.

So what is the economic impact on the valley and what have we been doing? We had 17 employees laid off in 2008. Those people are still currently laid off and, to be honest, they have found other jobs or left the area. During curtailment months such as we are experiencing right now, 50 per cent of the remaining employees are laid off. Our turnover rate used to be one of the best in LP, at anywhere from 2 to 4 per cent historically. It has ballooned to 20 per cent. Maintaining tradespeople has been a challenge. I don't think anybody in the audience will disagree with that fact, that there is canola crushing facilities being built in Yorkton which is

100 miles away, there is recruitments in the paper constantly for millwrights, electricians. So we have had our challenges there, as well as oil and gas. You know, it has been recessed a little bit but there still is employment in oil and gas in Alberta.

Many production operators have also left to seek other opportunities because of the uncertainty. 15 logging contractors have ceased operations since this downturn, that's about 25 per cent. We are only one of three operating LP OSBs left in Canada, down from five.

The mill has been adjusting as good as we have been able to, considering what we have been going through. In 2008 we saw 40 per cent of our volume reduced at our facility. In '09, it is a staggering number here to date at 70 per cent. So the industry, a lot of the locations are 50 overall, we are 70 per cent. We have reduced the logging rate to the contractors by 5 per cent, so they have been sharing the pain. Normally we break up the wood volume in the spring, in March, around 120 to 130,000 cords. This year we broke up at 62,000 cords, just to manage cash flow. And we have taken on aggressive cost saving

initiatives, including lean manufacturing in 2008, which reduced our operating costs by over $7 million.

So eliminating RTOs is only one aspect of how we are looking at the viability of the operation. And it is our duty, as managers, employees, and residents to try and put our best foot forward for the community.

MR. WARKENTIN: I want to reemphasize here that, as Kevin said, and Al and I have said, but we can't say it enough, we have been looking at this project for eight years already, before the market downturn. When the times were at their best, this project was being considered and initiated through the capital investment. Certainly the current market downturn has accelerated this, accelerated the application, but we were collecting information to support this application many, many years before the downturn started. We can't say that enough.

So the criticism this is only due to trying to save costs now, that's absolutely false.

MR. BETCHER: This slide speaks for itself, I don't know that we have too much dialogue around this. We feel approval of our

application is warranted, plain and simple. I believe the data we have shown today indicates that. Our submission to Manitoba Conservation lays out that as well.

Next slide, please? Not only do the proposed amendments reflect industry standards, they also maintain protection of community health and the environment, provide numerous environmental benefits in the form of NOx, nitrogen oxide emissions and greenhouse gas reductions, also equalizes the playing field within the Canadian OSB industry, and contributes to the sustainability of LP in the Swan River Valley.

MR. WARKENTIN: Let me just add here, when we say equal the playing field, that's the competitiveness. We have said it a number of times already, we will still have as much or more control equipment than any other OSB manufacturing plant in Canada. And we will still have more standards and more compliance conditions on this mill than any other OSB plant in Canada, in terms of emission limits, in terms of stack test emission requirements, in terms of ambient monitoring requirements. Nobody, nobody has that

level of compliance that they are required to comply with. So the playing field is clearly competitive in this thing.

MR. BETCHER: Mr. Chairman, commissioners, members of the panel, ladies and gentlemen of the audience, this concludes our presentation today. We have proven that removal of the RTOs will still ensure protection of human health and the environment. There is an environmental benefit as well with greenhouse gas reductions. The application is based on sound science and fact, and has been through numerous levels of review within Manitoba Conservation Technical Advisory Committee, including Manitoba Health, with no concerns identified.

The fact remains that we are the only mill in Canada, of the 25, or if you want to say 12 that are still up and operational, that have RTOs. And we request and are looking for fairness and equality with other jurisdictions in Canada. And we hope that the CEC supports our application in its recommendation to the Honourable Minister Struthers. That's all we have. Thank you for your time.

THE CHAIRMAN: Thank you, gentleman.

I would just ask if you could remain seated at the front while I ask the panel if they have any further questions of you?

Patricia, do you want to start?

MS. MacKAY: Yes. RTOs, you've indicated, are you think inappropriate in your industry at this point. Do you have any information or an opinion on whether the RTO technology is basically finished now because of greenhouse gas reduction, but will it continue to be an important instrument in other industries?

MR. WARKENTIN: Well, as we alluded to the U.S. EPA in particular, that's where really this is driven from, the U.S. EPA has in the past looked at trying to go the risk assessment route, more of a Canadian system. The way their current regulatory environment is structured, it does not allow them to do that. They have a very narrow minded focus. But they have certainly indicated that that is -- their next step in the review of the regulations is to look at being able to consider -- they cannot currently consider those trade-offs -- being able to consider those trade-offs. And there is evidence of some plants in the States that we are aware of that have been

successful in arguing that RTOs, in specific circumstances, and that is maybe a very important point. The U.S. EPA is a very cookie cutter approach. Everybody has to comply with this regulation, it doesn't matter if they are in the middle of the city or out in the middle of the field. The Canadian system allows for those site specific conditions to be considered. The U.S. EPA has indicated in their approval of these other mills that they are willing to consider this moving forward. So this will be the end of RTOs, I would suggest.

MR. HAMBLEY: I guess if I could add one thing. Certainly, that seems to be the case in what we are hearing from Environment Canada, but if at some point down the road they are going to mandate certain reduction in VOCs, then LP would comply with that because it would be the industry standard. Right now, I mean, we have demonstrated we don't need RTOs and we suspect that every other facility, OSB facility in Canada has done the same, and that's why they don't have them.

THE CHAIRMAN: Ken?

MR. WAIT: Sure. Commissioner Wait

again. My question relates to emission reduction. As a result of our tour of the plant yesterday, that's why this question came up -- and I certainly appreciated the tour. This relates to the planting of the trees in front of the plant. Was that there for noise reduction, or perhaps increased dispersion of any ground level emissions, or was it strictly esthetics, or you hadn't thought about it?

MR. BETCHER: Esthetics.

MR. HAMBLEY: Yes, esthetics, but I think it is important to note too that there has been quite a bit of research in the last eight years or so with hybrid poplar. And in behind where our old incinerator was, or is, there is a pretty impressive stand of hybrid poplar that is probably only five years old, but it is well over nine, ten feet tall already.

I think Environment Canada and another group was looking at that from the aspect of, if there was going to be less and less Crown land, that maybe this was an alternative for some of the local landowners to grow trees that possibly we can harvest. So I don't know if that adds to anything, but just to suggest there is some

research going on in looking at hybrid poplar.

MR. WAIT: Again, depending where the nearest residence is, it would appear to be helping any reductions that you might get from that.

THE CHAIRMAN: Any other questions, Ken?

MR. WAIT: Not yet.

THE CHAIRMAN: Ken, do you have any questions?

MR. GIBBONS: I do. I know I'm speaking for myself, I'm still a little unclear about the upgrades in 2004, in terms of the emissions that emanate as a result of that new process, as to how that process improved over the emissions that were in place prior to that new system coming in, in 2004. In other words, it seems to me that one of the arguments being made is that with the new dryer system that was installed in 2004, there is less of a need for the RTOs than was the case. Is that the fair way of putting it?

MR. WARKENTIN: I think it is fair to say the RTOs, as demonstrated in the environmental impact assessment, were never required. They were

installed to address that uncertainty brought up at the time. Now, with the benefit of 13 years of data to support some of the things that were said in the 1994 EIA, with that information to support, the improvement in technology in 2004 and, you know, the specific aspects are the lower dryer temperatures, which generate the lower VOCs in the first place, the recirculation of the flu gas, the dryer exhaust gas back to the energy system dryer inlet, which keeps that temperature low, and the gentler drying technology itself, all are demonstrated to reduce emissions at the source, eliminating the need for the additional equipment, which wasn't required in the first place, further reducing the need for that.

MR. GIBBONS: That's what I'm trying to get at here. There has been at least a significant incremental improvement, from your perspective?

MR. WARKENTIN: Yes. Then if you look at all of the improvements that Al touched on during his presentation with respect to the yield, which means we are processing less wood per unit of production, the types and uses of resin, those are all the best in industry application of

technology to reduce emissions at the source, that evolved in either part of the design of the Swan Valley OSB to begin with 15 years ago, or have been implemented or adapted, or adopted over the years.

MR. GIBBONS: Thank you.

THE CHAIRMAN: Any other questions, Ken? Thank you. I sort of have a follow-up question from Ken's question. If you will indulge me here, I should make some comments in general. Reviewing your application for amendments to the licence, one of the things I felt was somewhat missing is really more details on how that change in 2004 of your dryer system has reduced overall VOC emissions, and in particular those VOCs of particular mention like formaldehyde and benzene? It wasn't in your proposal, and I felt it would help everyone in general, especially our panel here, to look at those specific changes that were made in the dryer operation that reduced these sorts of emissions. That wasn't included. So it has been very helpful in terms of your presentation this morning regarding the work that you've done over the last eight years in your process, and the changes of recirculating the air,

operating at lower temperatures, and single pass dryers, and all of those things. But again in terms of what I think is very pertinent to the community is the concern over VOC emissions, and I am wondering why, you know, you are not showing exactly how much change has occurred between how you previously operated and your new system in terms of how much reduction was made. We understand the issue with the RTOs, that a case was made back at the original licensing hearings that there really wasn't a need for the RTOs, that in fact with the wet electrostatic precipitators, the WESPs, you were meeting ambient air quality criteria.

I guess in terms of changing the comments or formatting it into a question, I guess I'm trying to understand now, in your proposed amendments, you are asking the province to increase your emission limits on your wet electrostatic precipitators, yet you have said you changed your process that reduces them, but we don't know how much reduction is involved. Can you sort of explain that? It is a tough question, I realize.

MR. WARKENTIN: The emission limits,

well, there is two parts to it. The increase in emission limits is necessary. The RTOs, as Al has alluded to, do provide control of VOCs. So the emissions proposed in the application will be higher than the uncontrolled for certain parameters, and of course will be lower when we are reducing NOx and greenhouse gas emissions. But in terms of license parameters, primarily you will see that increase. So the increase in emission limits is necessary to allow us to shut down the RTOs.

The limits that are currently proposed in comparison to the previous limits, again, this goes back to the application, or the lack of information available in 1995 when those original limits were derived, no site specific information, using engineering estimates, very limited industry wide data available at the time, whereas after many years of operation we now have site specific information, operational experience to build on, industry information to build on. And what is also very important is the application of new stack test methods, which wouldn't have been in existence 15 years ago, to properly measure and characterize those emissions.

So we really stood back when we started this and said, if we were going to build a new mill in Manitoba today, what limits, based on existing technology, most current technology, based on the most current tests, based on the most current information available to us, and we were fortunate to have that real site specific data available to us, what limits would we need to apply for given all of those? So that's the number we came up with, whereas in the past we had to make numerous assumptions to come up with those numbers, we now have the real data, we have the benefit of real data which I would argue probably nobody has had before in such a significant amendment process.

THE CHAIRMAN: So in essence, the original limits were not -- given the fact they weren't based on real data and your assumptions made, those assumptions were likely not very accurate and, therefore, the limits that were in the original licence weren't properly appropriate?

MR. WARKENTIN: That's correct.

THE CHAIRMAN: Thank you.

MR. GIBBONS: Just a brief follow-up. Would it be fair to say then even if you didn't

change the technology in 2004, and even if you didn't request the removal of the RTOs, that you would have had to come forward with a request to change the licence because the original standards were not set properly? Properly is not perhaps the right word, but were not set in the way it was realistic?

MR. WARKENTIN: Yes. And those are part of the discussions that we had had with Manitoba Conservation since 2001, trying to address some of those issues directly with them.

THE CHAIRMAN: Are there any other questions from the panel?

Thank you very much for your presentation. Thank you, gentlemen, and thank you for those attending this morning, and we will reconvene this afternoon at 1:00 o'clock.

(Hearing recessed at 11:38 p.m. and reconvened at 1:00 p.m.)

THE CHAIRMAN: Good afternoon. Thank you for your indulgence. As usual we have our technical glitches which we have to sort out. I would like to reconvene our public meeting.

This afternoon we are going to begin with the Concerned Citizens of the Valley, with

Mr. Ken Sigurdson, Mr. Dan Soprovich, and Ms. Iris Jonsson. If you could please come forward to the presenters' table and we will begin by taking the oath.

(Ken Sigurdson: Sworn)
(Dan Soprovich: Sworn)
(Iris Jonsson: Sworn)

THE CHAIRMAN: I gather the order is Mr. Sigurdson first, I believe. So please proceed.

MR. SIGURDSON: Thank you very much. My name is Kenneth Sigurdson, I farm with my wife and three sons in the RM of Swan River. I'm a former chair of the Concerned Citizens of the Valley from '94/'95, and I'm making this presentation on behalf of the Concerned Citizens of the Valley.

To get a perspective on what we think is important here today, we would like to show you a CBC documentary called "Ill Winds" that was done in 1993 or '94. And it gives a good background of some of the communities problems with Louisiana Pacific and OSB plants in Dawson Creek and in Colorado. So with that, if we could start that?

MR. KLEIN: Mr. Chair, my name is Brian Klein. I am counsel for Louisiana Pacific, and I would like to make an objection to presentation of this material before you.

THE CHAIRMAN: Thank you, Mr. Klein. I would ask the indulgence of both of the presenters and those in attendance, if we could have a few minutes to confer with our legal counsel? Could you please state the objection?

MR. KLEIN: My objection, sir, is that this film relates to events which occurred at another plant operated by LP approximately 15 years ago. It is not relevant or germane to the application which is before you today, and which you are reviewing. Its contents, I think it is fair to say, will be inflammatory to these proceedings and should not be part of any record or any material put before you.

In my view it is essentially hearsay. And I think that there is no doubt that LP has had an exemplary relationship with its regulator in the province. I think it has the respect of the Province and the Department of Conservation. There is no suggestion whatsoever in any of these proceedings of bad faith, or malfeasance, or

misconduct in any way on the part of LP, in the valley, or to the people of the valley, or to the people of Manitoba. And I don't think that anything is served by this material becoming formally part of anything placed before you. And I strongly object to it being part of the proceedings here today. Thank you, sir.

THE CHAIRMAN: Thank you, Mr. Klein. Your objection is duly noted, and as I've mentioned, I would like to take a very short recess of a few minutes to confer with our legal counsel on this.

MR. WESTOB: Seeing this gentleman was allowed to speak, I would like to speak as well.

THE CHAIRMAN: Could you come to the mic? Please state your name for the record?

MR. WESTOB: Murray Westob, I'm a citizen of the valley here, and I'm concerned that I have come to this hearing to hear what is being said by all those concerned. And to have someone suggest that someone, a group, whoever it is, should not be allowed to speak I think is totally opposed to the intention of this hearing. So I would strongly urge the panel to allow this panel, and any others to say whatever they wish, unless

it is totally defamatory, but we don't know that until we hear it. Thank you, sir.

THE CHAIRMAN: Thank you. Again, I would ask your indulgence, we won't take long to deliberate this, but I would like to consult with our legal counsel. So give us about five minutes?

(Proceedings recessed)

THE CHAIRMAN: Thank you everyone for your indulgence. Again, we apologize but we had to take a few minutes to make sure we concur on our decision here.

Mr. Klein, your objection is duly noted, but considering this is a public meeting and we ourselves, the panel have not considered -- we have not seen the content of this, and this is not a legal proceeding, we are merely here to do an investigation and find out as much information as possible, we feel it is important that we review any information that's brought forward to us.

Again, I would reiterate, not only to Louisiana Pacific, but to the presenters in this room, as well as the general public, if anyone has comments to make on what is being presented in terms of providing their perspective or

clarification, you have until September the 1st to provide that to us. And by all means, the panel will consider any further information or comments on things that have been presented as part of our overall investigation.

So with that, Mr. Sigurdson, I would suggest that you proceed.

MR. SIGURDSON: Okay. I introduced myself, so we will watch the video and then I will proceed with the rest of my presentation.

THE CHAIRMAN: Thank you.

(Video "Ill winds" playing)

MR. SIGURDSON: The following video is just a lot of repeat of the previous one, and it has an EPA official on there stating that a plant of a certain size requires RTO technology. That would be the only useful information.

The citizens, after our success in getting RTOs in Swan River, the citizens of Dawson Creek attempted that as well and were unsuccessful, as did the citizens in Fort St. John where LP made a larger, just recently built a plant.

Just a follow-up to Olathe, Colorado, the plant mentioned in the Ill Winds video. In

1998, LP was assessed a $37 million fine, the largest fine ever levied by the EPA. In addition to court awarded damages -- I'm just going to go into my presentation -- damages, compensation to the neighbours, including the Orjiases. On May 27, 1998, the company pleaded guilty to 18 felony counts and agreed to pay $31.5 penalty for fraud and a $5.5 million fine for willfully conspiring to violate the Clean Air Act, among other crimes.

Two Louisiana Pacific employees, one of them actually served jail time. This was the largest fine under the Clean Air Act violations in the 28 year history of the Act, and there is a link provided to that article.

In 1994 the EPA testified at the CEC hearings, which lasted several weeks and included testimony from the EPA. LP had received the largest fine ever levied by the EPA, and the EPA had reached a consent agreement with LP to install RTOs at 11 of its 13 U.S. plants. So that was a court decision in '94. The '98 one was after.

The hearing revealed that this plant would emit 920 tonnes of VOCs, 2002 tonnes of carbon monoxide, 620 tonnes of nitrous oxide, and

484 tonnes of particulate matter. And that nitrous oxide is before the RTOs were added.

The EPA describes the threshold that they would require pollution controls. It should be noted that the current LP proposal still emits over 700 tonnes of VOCs. And I have no way of knowing from the information from LP how much carbon monoxide, how much NOx, and so on.

Then there is a statement by the lawyer at '94, the EPA, and they talk about the thresholds for pollution control. She says, in other words, if one pollutant is expected to be emitted, if it exceeds 250 tonnes per year, we would require the facility to control emissions of other criteria pollutants if their emissions rates exceeded the following numbers. For carbon monoxide, the threshold is 100 tonnes a year. For nitrogen oxide, the threshold number is 40 tonnes a year, for particulate matter, the threshold level is 25 tonnes per year for particulate matter or 15 tonnes for the smaller particulate matter, as defined in the United States regulations. It depends on the size of the pieces of particulate. And for volatile organic compounds, the threshold is 40 tonnes per year.

The EPA stated that a plant of this size in the U.S. would require the best available technology, RTOs or RCOs, to control VOCs and carbon monoxide. The EPA has stated that they would require low NOx burners to control NOx emissions.

Prior to the hearings and the conclusion, Louisiana Pacific made a commitment to install RTOs at the Swan River plant. RTOs then became a recommendation of the CEC, and regenerative thermal oxidizers were written into the licence. The CEC also recommended that low NOx burners also be used to burn off the NOx emissions. This recommendation, low NOx burners, was never followed.

And I have a question: How can LP use reductions in greenhouse gas, NOx, which is mainly the NOx emission, as a reason for turning off the pollution control when they have done nothing to control NOx emissions?

At the 1994 CEC hearings, LP made a commitment to the community to install RTOs. At the same time, opposition leader Gary Doer and local MLA, Rosann Wowchuk, spoke up in favour of the RTOs technology being installed. Why is this

commitment to the community being reneged on?

I was part of the Citizens Advisory Committee formed shortly after Louisiana Pacific was in operations. One of the discussions I initiated was the location of the air monitoring stations, one located west of the plant near the garbage dump and another located north of the plant. It was agreed that these stations would provide little useful information and would need to be moved. This was never done.

LP's air monitoring stations are good talking points but have no legitimate value in air monitoring.

Dr. Kay Wotten of Manitoba Health resigned from the committee, and her reasons were given to the committee. The CEC should request her letter of resignation from the Citizens Advisory Committee.

Enforcement of the licence was a difficult task. For example, I phoned Mr. Doug Peterson, the Manitoba Environment rep on the advisory committee, to request information on why the government allowed LP to shut down the RTOs for long periods of time. And they had some difficulties in the initial start-up with them

freezing and so on. Peterson's response to me was that RTOs were never a requirement of Manitoba Conservation, so it didn't matter.

With the Manitoba Government supporting LP's dumping of wood waste around the community, we realized that little could be achieved by continuing to sit on this committee.

The LP plan to increase pollution at the Swan River mill: Louisiana Pacific has received interim approval and has applied for permanent shutdown of their regenerative thermal oxidizer at their Swan River operation. The reason, LP wants to reduce the operating costs by removing the pollution control equipment. This will increase hazardous air pollution on the community.

A document prepared for the CEC called "Background to the Swan Valley OSB Plant Investigation" compares the Environment Act licence number 1900 S4 to Louisiana Pacific's proposed limits. Under the proposed volatile organic compounds from the dryers, increase from 1.1 grams a second to 20.96 grams a second, an increase of 19 fold; phenol emissions from .5 grams a second to 5 grams a second, a ten fold

increase; formaldehyde emissions increase from .85 grams a second to 4 grams a second, a 47 fold increase; while benzene emissions increased from .008 grams a second to .172 grams a second, a 21 fold increase.

Under LP's proposal press limit VOCs increase from .28 a second to 2.78 a second, an increase of ten fold. Formaldehyde emissions increase 14 fold; benzene emissions, 65 fold; while MDI emissions increased six times from .0141 to .089.

This document does not list carbon monoxide emissions which were 2002 tonnes annually in 1994, and the proposed decrease in NOx emissions is minimal.

The huge increase in pollution is shocking for our community.

Hazardous air pollution: RTOs remove over 90 per cent of the volatile organic compounds coming from this OSB plant. The wood dryers, glues and resins, methylene diphenyl diisocyanate and phenol formaldehyde used to make an oriented strandboard produces numerous VOCs. The six most common hazardous air borne pollutants coming off of LP's OSB plants are acetaldehyde, acrolein,

formaldehyde, methanol, phenol and propionaldehyde. Three of these VOCs are known carcinogens. These VOCs, even in low quantities, cause health problems, affecting the central nervous system and the respiratory system. That's some of the things the citizens of Dawson Creek were talking about.

Manitoba only has guidelines for two of these highly toxic air borne pollutants, phenol and formaldehyde. The U.S. with a Clean Environment Act recognized OSB plants create a huge pollution problem. In 2000, Willamett Industries, another large U.S. OSB producer received a fine and was ordered to install pollution control equipment, RTOs, in 13 of its U.S. plants.

At the time, Carol Browner, the EPA administrator, stated cleaning up the emissions from these plants will keep an average of 27,000 tonnes of pollution out of the air. That is the equivalent of taking 287,000 cars off the road. 287,000 cars is approximately the number of cars in a city the size of Portland.

In July of 2004, the EPA issued more stringent rules on U.S. veneer plywood OSB plants.

The companies -- U.S. plants continue to improve and upgrade their pollution control equipment in the U.S. And there is a link to that site. And they talk about the rotary dryers and those types of things in their -- they still require control of the pollution.

This document lists the pollutants coming off OSB plants. In addition to Acetaldehyde, probably carcinogenic, Acrolein, possible carcinogen, formaldehyde, probable carcinogen, methanol, phenol, propionaldehyde, other pollutants are emitted. There are arsenic, a human carcinogen; beryllium, a probable human carcinogen; chromium, a human carcinogen; manganese; nickel, a human carcinogen; lead, a possible human carcinogen; MDI, associated with asthma and respiratory illness; and benzene, a human carcinogen.

In 2006, the EPA introduced an even more stringent rule for OSB plants. There is no doubt that if the Swan River OSB plant was located in the U.S., it would have to control VOCs with RTOs, RCOs, or biofiltration.

A quick Google search indicates that the Swan River Louisiana Pacific OSB plant is the

only OSB plant in North America turning off the pollution controls.

And at the back you will see attached information on LP plants that I have gathered just from my search on the internet.

Benzene: In September of 2007, LP requested that Manitoba Conservation approve a change from RTOs to RCOs, regenerative catalytic oxidizers. In a letter of response, Tracey Braun, director of Manitoba Conservation, stated in part, and that letter is attached:

> "Based on the fact that benzene is a known human carcinogen, it is the requirement of Manitoba Conservation that benzene emissions must be reduced or eliminated wherever possible. Therefore, we are not prepared to increase the benzene emission limit."

This brings up some very serious questions. Why did Tracey Braun deny LP an increase in emission limits of benzene in September of 2007? Also, why did Tracey Braun then in December of 2008 grant an interim licence to allow LP to suspend operation of the RTOs that control 90 per cent of the VOCs, including benzene? What happened to the Manitoba

Conservation plans to reduce or eliminate benzene? Why did LP abandon its plan to replace RTOs with the newer RCOs in 2007?

According to the document, "Background of the Swan Valley OSB Plant Investigation," benzene emissions will increase 21 times from the dryers and 65 times from the presses. The removal of the RTOs will result in an additional 35 tonnes of benzene being emitted annually by this plant.

Manitoba is part of the Canada wide standard on benzene, and there is a link to that site. And I took some quotes from the document.

"Benzene is a simple organic compound that is a volatile, clear, flammable, colourless liquid at room temperatures with an aromatic odour. In all media it is not persistent or bioaccumulative. Benzene has been classified as a carcinogenic to humans. It is a non-threshold toxicant, a substance for which there is considered to be some probability of harm for critical effect at any level of exposure. The primary long term air quality management goal for

threshold toxicants like benzene is to reduce exposure to the extent possible and practicable, thereby reducing the risk of the adverse effects of this pollutant to human health."

Then another from the same document, I will just read the bold print. It says:

"For new and expanding facilities; minimize benzene emissions by the application of the best available pollution prevention and control techniques."

And then there is two more links to that site.

So Manitoba is clearly part of a Canada wide program to reduce and eliminate benzene. Braun's rejection letter and the quote from the Canada wide standard on benzene that states benzene as a non-threshold toxicant, a substance for which there is considered to be some probability of harm from critical effects at any level of exposure, and applying the best available pollution prevention and control techniques. This compares to the self-serving analysis and statement by Vicki Tatum of NCASI who states:

"The proposed RTO elimination does not

represent any unacceptable risk of increased cancer associated with benzene exposure."

Formaldehyde and acrolein: The assessment done for LP of formaldehyde for acute health effects, the maximum predicted one hour concentration is 56.9 -- I don't know the term -- per metre of air. And that disregards other jurisdictions such as ATSDR, which is 49. And you will see there is others as well.

Document 5, page 3, paragraph 1, refers to the U.S. EPA reference concentrations of .5 ug per metre cubed of acrolein. This is incorrect. The correct IRIS RFC for acrolein is .02 per metre cubed, which is 25 fold lower that the .5 per metre suggested by NCASI.

The criticism of the Ontario standard by NCASI is similarly unfounded.

The U.S. EPA derived its inhalation reference concentration of .02 per metre based on nasal cavity respiratory effects in rats. And that was, and there is -- it is again from the Ontario air standards for acrolein in 2005.

Synergic effects of aldehydes: The models emissions for acrolein are .02 per metre,

as the EPA reference, the EPA reference guidelines. LP's assessment for formaldehydes emission, 56.9 per metre, for acute health risks exceed the maximum predicted one hour air concentration of other acceptable guidelines.

Acrolein exists together with aldehydes such as acetaldehyde, formaldehyde, and has shown to have synergistic effects with these aldehydes. And that again is from the Ontario air standards for acrolein. And there is the link to that site.

So we have the mixture of these three aldehydes are found to be more severe and more extensive in inducing respiratory olfactory problem in rats, compared with the individual chemicals alone. So we are getting this cocktail of chemical, and what LP is doing is attempting to do a standard on each one.

The three aldehydes mentioned in the Ontario document are all emitted in large quantities. Acrolein and formaldehyde at the maximum levels. Certainly, the synergistic effect with these aldehydes will have an impact on human health of our community.

Particulate matter: The model does

not make any calculation for background levels of any substance, and particulate matter is one of these. Particulate matter of 2.5 microns is a known health hazard. Since there is a large amount of diesel truck traffic around the mill, then we can assume that most of these background diesel emissions are of the 2.5 microns or less. Why was this not calculated, and why wasn't it calculated for other substances?

Louisiana Pacific threatens the community they are going to shut down. They holler jobs, jobs, jobs. I just wonder how realistic is that threat? Thanks to the benevolence of government and so on, our LP operation is the lowest cost wood supply in North America. Globally, LP has sales of $1.7 billion in 2007. While LP may shut down because of the housing crisis in the U.S., it is highly unlikely they will shut down based on the costs of operating pollution control equipment in the Swan River operation.

LP currently is shut down, I understand, and have been since mid June. So this threat has little validity.

LP's website brags about the RTOs at

the Swan River plant. The site has a picture of LP's Derek Boychuk. Boychuk says he has a different name for the mill's regenerative thermal oxidizers:

"They are kind of my babies..."

he said:

"RTOs burn volatile organic chemicals, an important part of the mill's air quality system."

It appears that Louisiana Pacific doesn't view air quality as an important issue in Canada. I should just add that RTOs, while they are not in the OSB industry in Canada, they are, for example, at the Suncor Ethanol plant in Sarnia, Ontario, where they control volatile organic compounds.

Finally, the CEC hearing process of 1994 lasted 10 days and included testimony, debate, analysis, and recommendations. There is no need to reinvent the wheel here, nothing has changed, and the LP plant remains a major emitter of thousands of tonnes of hazardous air pollution. For the CEC to have any credibility going forward, they must reject this ill conceived plan by LP to enhance their profit by turning off the pollution

controls.

And that's respectfully submitted by Ken Sigurdson, Concerned Citizens of the Valley. And I will answer any questions that you may have.

THE CHAIRMAN: Thank you Mr. Sigurdson. Does the panel have any questions of Mr. Sigurdson?

MS. MacKAY: You mentioned that you had -- you felt that the sampling stations would provide little useful information and would need to be moved. Can you tell me specifically what your concerns were about the locations of those and where you thought they should be moved to?

MR. SIGURDSON: Well, we had the discussion, as I remember it, when we were on the Citizens Advisory Committee. And the discussion at the time was that the one was west of the plant. The prevailing winds are generally westerly and northwest, west, sometimes southwest. The two monitoring stations, one is south -- pretty well directly north of the plant and the other one is pretty well directly west of the plant. So these were not really the best locations to pick up the prevailing air movement. And I think there will be further comments on that

in our further presentations here.

And at that time it was agreed by everyone on that committee that, yes, something needed to be done. And the discussion was that the power locations were convenient at these locations. That was a strange, strange answer.

MS. MacKAY: Another question in the same area of your report, you indicate that the Manitoba, excuse me, with the Manitoba Government supporting LP's dumping wood waste around the community, what are you referring to there, please?

MR. SIGURDSON: At the initial stages of operations, because of the tumbler dryers, as I understand it, there was a great deal of wood waste, and it built up on LP's site. It was trucked around and distributed around the community on riverbanks, in sloughs, in pasture land, in wetlands. And the story came out from everybody, Louisiana Pacific and the Manitoba Environment, this is a natural substance, there is no problem with it being out there. But wood and wood waste left in large quantities produce leachate which is harmful to aquatic life. And, you know, that was just the kind of thing, that

was kind of the last thing that we participated in while we were on the Citizens Advisory Committee. We saw very little value in continuing.

MS. MacKAY: But that issue is no longer an issue; is that correct?

MR. SIGURDSON: There is still some wood waste that gets trucked around, but not to the degree, because of the conveyor type dryer system, rather than the tumble dryers, as I understand it.

MS. MacKAY: Thank you.

MR. GIBBONS: If I can follow up on that last question. There is a program that LP is engaged in where the ashes are used to bring up pH levels of certain land in the area. You are not referring to that are you? You are talking about something similar?

MR. SIGURDSON: No, I was talking about the wood waste that was a problem in the '90's. It was the reject chips and so on.

MR. GIBBONS: No, but you said there is still some of this going on now?

MR. SIGURDSON: Yeah. I think, I wouldn't be an expert on that, but I believe there is still a bit, but not to the degree that there

was.

Now they are laughing, so there obviously isn't.

MR. GIBBONS: As I understand it, that is part of a program -- is that a reference to the ash that's being used? You mentioned that there was the program to deal with pH that --

MR. HAMBLEY: No, this isn't in reference to that. There is a little bit of material from our log yard that will go to the Swan River landfill or the Minitonas landfill, and they will use that as cover material.

MR. GIBBONS: Thank you.

THE CHAIRMAN: Just one other question, Mr. Sigurdson, from my own perspective here. You specifically mention in your presentation about LP's use of the reduction of greenhouse gases, and in particular talk about NOx, as justification for turning off the RTOs. And you also further state that they have done nothing to control NOx emissions. I'm wondering if you are aware of the changes in their dryer process that they made since 2004? I just wonder if you have any comments on that?

MR. SIGURDSON: It is very difficult

to know what the emissions of various substances are, because they don't provide us with those numbers of how many tonnes of NOx, how many tonnes of carbon monoxide and so on. But a CEC recommendation back in 1994 was to install low NOx burners, because of the amount of nitrous oxide being emitted by this plant. And I still believe it is huge. And they could control those, according to the EPA at that time, with low NOx burners. And that's just my point.

THE CHAIRMAN: Thank you. I guess we will proceed with the next presenter, Mr. Dan Soprovich. Please proceed.

MR. SOPROVICH: Thank you very much, members of the Clean Environment Commission, panel and citizens. I just want to note here, in my submission I don't have all of the details on my references, I never got to that point, but I will submit those at a later date.

There is a saying to the effect that those who ignore history are doomed to repeat past mistakes. For this reason it is important in my view to briefly review the history of LP and it's consultants relative to predictions of unsustainability of the forest. This is so

because history has shown that LP and its consultants were very wrong, and because I observed some important similarities between their assessments for this proposal and the company's documents relative to the force of stainability.

Consider the following relative to the predictions of LP and its consultants on forest sustainability.

THE CHAIRMAN: Excuse me, Mr. Soprovich, I mentioned this morning that I would not allow discussions of forestry management plans. Essentially this panel has been convened to have input on the air emissions to the facility and its potential impact on human health and the environment. So we are not looking at the sustainability of the forest.

MR. SOPROVICH: I understand that. The purpose of addressing this is to demonstrate -- the counsel for the proponent here indicated that he didn't want to talk about past history, he said things were different in the Swan River Valley. This demonstrates that is not quite the case.

THE CHAIRMAN: That's fine. If you could contain your comments to air emissions

rather than forest management plans, I would appreciate that.

MR. SOPROVICH: Okay. Can I discuss just an overview of the mistakes that were made in the forest sustainability and that LP and its consultants were very wrong on that?

THE CHAIRMAN: I will allow you a brief discussion, but, again, this panel is being paid to look at air emissions.

MR. SOPROVICH: Understood, and I want to get through it fairly quickly.

THE CHAIRMAN: Okay. Thank you.

MR. SOPROVICH: I will talk fast. So let's look at the annual allowable cut for hardwoods for the Duck Mountains, using growth and yield assumptions from LP's 10 year forest management plan. LP's consultant, and it is 1995 --

THE CHAIRMAN: Excuse me, you can't read really fast, because we cannot take it down. What I'm suggesting is, if you have a two or three line statement, I will allow that, but this panel is convened specifically to look at the air emissions from the facility.

MR. SOPROVICH: If we look at -- what

happened was LP and its consultants, in 1995, I did an assessment looking at the sustainability of the forest.

In 2004, the Manitoba Government, Manitoba Forestry Branch published a study which looked at things like the sustainability and growth and yield. We saw very radical changes since then. So, for example, when we look at the annual cut of hardwoods from the Duck Mountains, LP and its consultants said that for every year over the next hundred years, they could take 6,000 cubic metres per year.

Nine years later the Province said around 350,000. That's a 71 per cent difference. That's a huge error in environmental assessment.

If we look at what is called growth and yield assumptions, how fast the forest grows, and the yield of fiber from that forest, these are called growth and yield assumptions. Again, it was LP and their consultants that came up with some growth and yield assumptions. They had growth and yield assumptions for aspen, black poplar and birch, which are hardwoods, 340 cubic metres a year, or 340 cubic metres a hectare at age 60, the forest age 60. That's this particular

graph up here.

Looking at aspen, when we look at the government figures, 2004, we see basically this. Very, very different. They overestimated the aspen yield by 2.07 times. When we look at the other hardwoods, again they assume 340 cubic metres per hectare at age 60. They overestimated those about 2.5 to three times. Okay.

So we will leave it at that. We see some very, very serious errors in their assessment. And that's LP and their consultants collectively.

Now, important points, and these are relevant to the present discussion, the important points respecting these results are as follows: The growth and yield data were collected by a Winnipeg consultant with the help of three recent graduates from the Swan Valley Regional Secondary School Environmental Studies Program. These data were subsequently turned over to a consultant from B.C. to develop the yield tables. These yield assumptions were then used by a third consultant, who conducted the sustainability analysis. Of particular relevance, there was no stand-alone report by either of the first two consultants,

reports that might have addressed sampling problems and issues of data interpretation. All information was contained within LP's long term plan under the authorship of the company. While there was disclosure that the yield tables had been developed by the B.C. consultant, there was no discussion with respect to matters like obvious bias in sample locations, for example.

History, by virtue of the 2004 Forestry Branch Report, has now demonstrated that LP and its consultants were terribly wrong. And many local residents, local loggers, environmentalists, and independent technical people challenged the sustainable harvest and growth and yield. History has demonstrated that they were right.

The fourth point, the CEC panel and government of the day accepted the figures of LP and its consultants, and history has demonstrated that they were wrong to do so.

Now, let's consider the present LP. First and foremost, it is critical to understand that independence is a fundamental element of environmental assessment. However, independence is often not an absolute, but rather a matter of

degree. While processes can be implemented to help foster independence, independence in environmental assessment often comes down to the personal integrity, competence, and professionalism of the consultant.

Like the growth and yield assumptions for the forest, the air dispersion modeling is an essential building block to understand the implications of the development on human health and the environment.

I will focus my attention in this presentation on the first group of dispersion modeling data provided on November 18th of 2008, given that the November 18 proposal submitted by LP was deficient and that the outstanding dispersion modeling data were only provided to some of our desktops 12 days ago, I have not had the opportunity to examine that material in any kind of detail.

The first thing that struck me was that the dispersion modeling report was submitted under the authorship of Louisiana Pacific. There was no mention of any consultant having done the work for the company. One can only assume that the company had done its own dispersion modeling.

Hardly independent to say the least.

Subsequent communication with Manitoba Conservation, Mr. Ryan Coulter, revealed that LP indicated that Cordilleran had completed the air dispersion modeling for them. There is no document in the proposal that references the company. So what we now had was some air dispersion modeling by a company being reported on under LP's name, as opposed to stand-alone report from the consultant who actually conducted the modeling. This is most reminiscent of how LP handles its consultants on the now repudiated growth and yield assumptions.

Further communication with Mr. Coulter indicated that Cordilleran was no longer in existence as it had been absorbed by another company. A limited Google search on Cordilleran suggests little work by this company in the public domain.

THE CHAIRMAN: Mr. Soprovich, sorry to interrupt, could you speak just a little bit slower? We have a recorder and she is having a difficult time keeping up with you.

MR. SIGURDSON: Sorry, I apologize.

Specifically, the first two search

pages revealed only one record that was a study, and this related to drilling mud and not air dispersion. This lack of study is surprising, as most searches of this nature would reveal a number of studies. Indeed, when I searched on Sentar Consultants Limited, the company that conducted LP's 1994 assessment, a number of studies came up immediately. Further examination of the scope of work and experience of Cordilleran would be prudent, in my view. This is essentially a recommendation.

A stand-alone report by the consultant might have addressed critical factors that impact on the accuracy and precision of the model predictions. For example, factors like bias, input parameters of poor precision, limitations of input data, critical and sensitive model assumptions, limitations of model and other matters central to evaluation of the output.

As a specific example, the fact that only one year of local wind data was used to model dispersion, and therefore the analysis ignores annual variation in the spatial distribution of contaminant levels, things that an independent consultant would often discuss in a report.

Where a consultant reports under its own name, it must answer directly to challenges. Under the circumstances of the LP proposal, we can only wonder if and how LP has managed and massaged any such information, including aspects related to the consultant's discussion and interpretation. This is not good environmental assessment practice, as the consultant, the who one will most be able to address questions, is shielded from reporting.

Under the present circumstances, transparency, accountability and disclosure are compromised. Good environmental assessment practice, designed to address the issue of independence, dictates the need for stand-alone reports such that consultants are answerable. For an example of good practice, I provided a link for a wind farm in B.C., and that information is on there, and you can see that these are stand-alone reports on each of these aspects.

If the air dispersion modeling had been conducted by a Manitoba engineer or an out-of-province engineer registered to work in Manitoba, we might expect to see the work stamped by the professional engineer. And I cite the

personal communication with Mr. Michael Gregoire from the Association of Professional Engineers and Geologists of Manitoba. This was not the case with the LP submission.

I want to briefly touch on LP's assessment of the impact of the various pollutants on human health as conducted by an organization known as NCASI. This organization purports to be an independent non-profit research institute, however, it is funded almost entirely by the forestry industry, including Louisiana Pacific Corporation in Canada. And I provide a link there.

Further to this we observe that LP CEO, Mr. Rick Frost, is vice chairman of this organization. Clearly this is less than a completely arm's length relationship. In effect, the organization that conducted LP's health assessment works on behalf of LP, and reports to LP's CEO. We would be far more comfortable with a health assessment if it had been conducted by an organization that did not owe its existence to Louisiana Pacific; for example, respecting cancer causing toxins, an organization like the Canadian Cancer Society Research Institute.

The Manitoba Public Interest Law Centre has been supporting efforts of Concerned Citizens of the Valley, including support towards the funding of three experts who are presently examining the LP proposal. While these experts will not complete these reports on their findings until around the September 1st CEC submission deadline, I expect the findings, the NCASI findings, will be challenged on a number of fronts.

In summary, we know that past environmental assessment by the company and its consultants have been grossly flawed. We further observed poor environmental assessment reporting practice, and similarities between the assessment information in the present proposal and the past forest sustainability assessment.

Under these conditions, I urge you to be sceptical of the reports and analysis presented by LP and its consultant. I also urge you to very seriously consider information that comes forward from other sources, including the local knowledge that will be reported to you. I ask you to critically seek out alternative information. After all, the ability to decommission the RTOs

will enhance LP's balance sheet by many millions of dollars.

Now we will talk a bit on the ambient air quality monitoring. I hope I can answer some of your questions that you posed earlier.

Ken Sigurdson earlier noted the poor suitability of the two locations for LP's ambient air quality monitoring program, and Concerned Citizens indication of this fact when the program began. Further to this, if one looks at the original assessment conducted for LP by Sentar Consultants, you will observe that the locations were not appropriate on the basis of four years of wind data from Swan River. So you can see that with these particular wind data, the longest lines represent where the wind is blowing the most from. So the southwest line indicates that there is more wind blowing from that southwest because it is long. Ken had noted that one of the air ambient monitoring stations was located to the north of the mill. You will see that the line to the north of the mill and to the south, they are very small lines. So that indicates that very little wind blows from either the north or the south.

So, again, this demonstrates, when you

look -- looking at the west one as well, we have much more wind blowing from the west, because the line is longer, relatively little wind blowing from the south, or from the east, sorry. So, again, these were located upwind of the mill primarily. And again, this is data right from LP's assessment by Sentar Consultants in 1994.

I can also tell you I looked at wind data from the Canadian Wind Energy Atlas, and these findings are consistent with that particular data. And that was specifically for the Minitonas plant site.

THE CHAIRMAN: Just a point of clarification, Mr. Soprovich, the wind rows you are showing there is from the Swan River airport?

MR. SOPROVICH: That is the Swan River Airport, that's correct. That was from the Sentar publication.

THE CHAIRMAN: And more recent modeling has been based on, to my understanding, the actual meteorological station that they have established right at the site?

MR. SOPROVICH: Yeah. And I understand that, but I guess what I am saying also is that I looked at the wind energy atlas, which

is a modeled estimator, and it is consistent with this. And that was more the Minitonas site. So I don't think you will see a lot of difference.

THE CHAIRMAN: Thank you.

MR. SOPROVICH: Consider the following respecting the program: The data in LP's own proposal demonstrate that the monitoring stations were improperly located. And I'm going to show you the one hour maximum formaldehyde iso-concentration graph. And this comes from LP's proposal that they have got before us right now. You will see stations LP1 and LP2, LP1 being to the north, and LP2 to the west. So you can see that these are located in areas of relatively low concentration, relatively low predicted concentration. These monitoring stations were put in the wrong place, well outside the areas of greatest concentration, as opposed to in those places where the predicted concentrations were much greater and within which people reside. Plotting the residences of nearby people on these maps would have been demonstrative of this.

In a March 13, 2009 email, Conservation Department employee, Mr. Dave Bezak, referring to LP's monitoring program for MDI,

Phenol, hydrogen, cyanide and formaldehyde stated:

"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."

We note that Mr. Bezak failed to address the problems of location of the sites.

So we observed that for two primary reasons, LP's ambient air quality monitoring program has been little more than a public relations exercise. Further to this, given that government regulators were clearly made aware of the location problem when the program was initiated, it is apparent that the regulators have functioned as enablers in this charade.

I want to talk about adaptive management, the concept of adaptive management in the air quality program. Adaptive management is a concept that promotes the application of new and current knowledge to adapt management practices as a means to achieve expected outcomes. Monitoring is absolutely fundamental to adaptive management

in the context of resource management.

LP's 1994 air dispersion modeling used various assumptions and parameters to make predictions about toxin concentrations in the vicinity of the mill. But model predictions are only as good as the accuracy and precision of the available information, and the ability of the person conducting the modeling. Consequently, it is fundamental to test predictions to see if they prove to be true, and to adapt as necessary on the basis of those findings. Given the observations relative to locations and frequency of monitoring, it seems reasonable to conclude that LP's ambient air quality monitoring program was designed to not be able to test its modeling predictions respecting those who might be affected the greatest by its submissions. In other words, it appears that the program was designed so that the resulting data would not allow for the testing of model predictions and for adaptive management to occur.

One wonders why the company would design such a flawed program. However, economic implications and enhanced profitability certainly come to mind.

One further wonders why our government was missing in action on this program and whose interest they have been representing over this period.

I want to talk somewhat on greenhouse gases. We are concerned about greenhouse gases, and I believe it is appropriate to examine greenhouse gases implications. We note, however, that greenhouse gases emissions must be looked at independent of the emission of toxins, because the environmental and health impacts of greenhouse gases emissions versus toxins like formaldehyde and benzene are completely different.

We further note that greenhouse gas emissions from the RTOs likely represent a small portion of total GHG emissions from the plant, and that many options exist to reduce or mitigate such greenhouse gases emissions.

Let's talk about the biofilter option. Technology has been developed which used bacteria to break down the contaminants. This technology can reduce greenhouse gas emissions by 85 per cent or more. I cite a April 28th, 2000 letter from a fellow from Bio-reaction Industries to Dr. P. Miller, who is a member of the LP stakeholder

advisory committee. We understand that LP uses this technology in at least one of its U.S. plants.

It would be valuable to investigate the implications of pollution abatement equipment that increases the control of nitrous oxides. As you may well be aware, nitrous oxides are very, I think they are 21 times more potent than carbon dioxide. So control of nitrous oxides might result in an overall net reduction of greenhouse gases with the RTOs in operation.

Now, those of us who follow the issue of greenhouse gases in this province understand that Premier Doer has been promoting northern development, and the export of that electricity to other provinces and U.S. states as a means to offset greenhouse gases emissions. For example, to replace electricity generated from coal or natural gas. It is anticipated that polluting companies will offset the greenhouse gases emissions by purchasing what is known as offset credits. Premier Doer is expecting that Manitoba's hydroelectric produced electricity will attract a premium price in this marketing environment.

Although reduction as possible is likely the best solution to the greenhouse gas issue, it logically follows that if Premier Doer and his government accepts the legitimacy of using Manitoba generated electricity to offset emissions, then this approach is also appropriate for Manitoba.

Indeed, Conservation Minister Struthers recently announced a program to promote tree planting as a means of offsetting Manitoba greenhouse gas emissions. Offsets are a fact of life in many companies. The municipal governments in Canada have committed to becoming carbon neutral, with offset credits being one of their plans. And offsets are becoming part of a new way of life. For example, in May of last year I flew to Calgary and back with Air Canada, and was able to offset my greenhouse gas emissions.

Now, if the company was really concerned about greenhouse gases emissions, there is many ways by which they could offset RTO and other greenhouse gas emissions. It could have begun this process years ago. Some examples are as follows: International Institute of Sustainable Development, David Runnalls, in an

article in the Winnipeg Free Press on May 3rd of this year noted that a cost of carbon dioxide offset on the Chicago climate exchange, of which Manitoba Hydro is a founding member, at the end of April was less than $2 per tonne.

LP's Mr. Allan Hambley, in his November 18th, 2008 letter to Ms. Tracey Braun, Manitoba Conservation Director of Environmental Assessment and Licensing, indicating that decommissioning of RTOs could result in a greenhouse gas emission reduction of approximately 11,830 tonnes, metric tonnes, of carbon dioxide equivalents per year. Now, if LP chose to purchase offsets from the Chicago climate exchange, using the end of April prices, it would cost the company approximately $26,000 U.S. This is an inconsequential cost to LP in the big picture.

If LP invested in three 1.5 megawatt wind turbines at the proposed St. Joseph wind farm south of Winnipeg, it could offset its greenhouse gas emissions and generate a profit.

LP could invest in carbon reduction programs in the Swan Valley and Parkland region. For example, it could support retrofitting for

energy efficiency and geothermal installations to schools, curling rinks, skating arenas, municipal buildings and churches that are presently using carbon based heating. There is a multitude of local investments that LP could make to offset its greenhouse gas emissions, including planting trees on marginal farmland as done by ALPAC in Alberta. The ways and means are only hampered by the commitment of the company, or the lack thereof.

I'm going to talk a bit on formaldehyde and VOCs. Some months ago I had the opportunity to meet and talk with to Mr. Ryan Coulter, who is a conservation department employee working on LP's application. I noted that the materials provided to that date did not provide any indication of the increase in the amount of contaminants that LP was proposing to release to the environment. And Mr. Coulter agreed, and in a May 5th email to myself indicated, "what you have to do is compare the proposed emissions from LP's proposal to the limits contained in licence number 1900 S4. This will tell you the maximum percentage emission increase according to the proposal. Keep in mind, of course, that the government is awaiting additional information from

LP."

The comparison of the emission limits was subsequently posted on the CEC website as a two-page document entitled "Background to the Swan Valley OSB Plant Investigation." This document indicates the following: The previous licence allowed for a maximum emission of .165 grams per second of formaldehyde from dryers and presses. The new limits in LP's proposal would increase the maximum emission from these two sources to 5.1 grams per second.

Now, if we assume maximum emissions from the mill operating 24 hours per day, seven days per week, and 365 days per year, the previous licence allowed for the maximum emission of 5.7 tonnes of formaldehyde per year, while the current proposal allows for 176.9 tonnes. This is a huge increase in the amount of formaldehyde to introduce to the environment.

Per the North American Oriented Strandboard Industry Review, and this was a SENES report that was commissioned for your panel, the U.S. Environmental Protection Act standards for hazardous air pollution, or HAPs, apply to any facility estimated to emit 25 tonnes of total HAPs

or 10 tonnes per year of a single HAP. Formaldehyde is one of the six HAPs as defined by the EPA. The initial limit of 176.9 tonnes of formaldehyde, as proposed by LP for its mill, far exceeds the 10 tonne limit for U.S. emission of formaldehyde, or for the U.S. Clean Air Act. It would therefore require RTOs or equivalent technology to reduce the emission of formaldehyde.

Per the SENES report again, HAPs typically must be reduced by 90 per cent, or at least 90 per cent. It is noteworthy that for the LP proposal, even if emissions for formaldehyde were reduced by 90 per cent, there would still be 17.7 tonnes per year, and still exceed the EPA 10 tonne standard.

I want to talk briefly on some health issues, ALS and other health issues. I would like to briefly address the possibility that the mill has already adversely impacted on the health of residents in the area. My focus will be on ALS, also known Lou Gehrig's disease.

A recent long-term study that followed almost a million U.S. residents over 15 years observed elevated rates of mortality from ALS in relation to exposure to formaldehyde. Concerned

Citizens is aware of at least three people who live within ten miles of the mill and died of ALS since the mill began to operate. It is reasonable to assume that LP can operate at full capacity for about 13 years, from 1996 to 2008. This represents an ALS mortality rate of at least .23 people per year for the area, which is divided by 13.

Now per Statistics Canada, the Town of Minitonas has a population, had a population of 538 in 2001 and 497 in 2006. While the RM of Minitonas had a population of 1,152 and 1,105 respectively in the two years. Given these data, it is reasonable to assume an average population of about 1,000 people living within ten miles of the LP mill over this period. And using this number, the ALS mortality rate is calculated at, at least 23.1 per hundred thousand people per year. The Canadian mortality rate for ALS, approximately two per hundred thousand per year. Therefore, the observed rate for the area around the mill is at least more than 11 times the Canadian average, and I stress at least because there may be more than the three we know about.

We also note that all three of those

who died from ALS lived in close proximity to the Duck Mountain. We further note that local people indicate that particularly in the winter, the smoke from the mill tends to concentrate up along the edge of the mountain.

Other health issues: We are also concerned that human health may have been compromised in other ways by emissions since the arrival of the mill. For example, the letters to Manitoba Conservation in relation to this proposal reveal the concern of a young mother who lives near the mill and has written: "How do I know that these emissions aren't the cause of what happened to my first child?" So there already exists empirical evidence and anecdotal information to suggest that the operation of the LP mill may have already impacted on the health of the residents.

We do not know how frequently the RTOs were operating, but there may have been extensive periods of time when they were not employed. As residents of the area, we hear stories from local people, what can be referred to as local knowledge. And I have heard in the past from a good source -- just yesterday one of our members

heard from a reputable source that someone who worked in the mill in the past indicated that the RTOs were often turned off at night. Now, I have heard those stories before. And I have heard in the past from good sources in the mill of cutting corners when it came to the environment.

Some might suggest this kind of information might not be verifiable and should not be considered. But I ask you to remember that local people, including loggers in the forest and others, knew that LP so-called sustainable harvest level for hardwoods was substantially inflated. And local knowledge was correct in that case, and we strongly urge you to seriously consider this information.

We also know that in the 1980s and early 1990s, employees at the LP mill in Olathe, Colorado, were tampering with monitoring devices and falsifying emission reports. The culture of the LP parent office may or may not have changed since then, however this history is consistent with the local knowledge previously cited.

Now on the basis of the above information the following representations are made with respect to health. There is a need for a

comprehensive epidemiological study that examines the hypothesis that contaminant related health impacts have occurred since the LP mill began to operate. This study must be commissioned by government and involve representatives of all stakeholders.

We note that in Flin Flon there are plans to test residents' blood, urine, hair and toenails in relation to emissions from the stacks from the smelter there.

To complement the epidemiological study, there is a need for independent analysis of compliance since the mill began to operate. Such a study would examine the performance of the RTOs and could look at independent means to verify how often they were operational and how well they were operating, for example, looking at natural gas consumption as a surrogate. We have an expert in mind that we can recommend.

Are we environmental ostriches? In Manitoba, the LP uses a formaldehyde compound with MDI to glue the wood chips together. Elsewhere the world is moving away from using bonding agents containing formaldehyde because of the health effects. Consider the following: California Air

Resources Board legislation that limits formaldehyde emissions came into effect on January 1, 2009. This legislation is likely to promote similar national standards in the U.S. in much the same way as we have seen California's standards on vehicle emissions push the envelope elsewhere, including in Canada.

In 2005, Columbia Forest Products in the U.S. converted from urea formaldehyde adhesives to a soy based adhesive, soy based system. I cite Orr 2007. This particular company began moving in this direction as early as 2002. And other soy based adhesives have been developed.

At the recent international convention of the Forest Products Society, papers included "Formaldehyde free" and "Ultra low formaldehyde emitting adhesives for bonding," "Preparation of particle board with a new formaldehyde free soy based adhesive," and "Protein hybrid adhesive; adhesive performance, formulation, latitude and chemical structure." So this is something that's being actively pursued at the front of technology.

Life is a complex of choices. In this case, one can be like an ostrich with its head stuck in the sand and continue to pollute using

old methods, or one can be progressive and limit the amount of toxic pollution using current technology.

We suggest that the CEC panel examine the feasibility of the various alternatives to the formaldehyde/MDI mix, and make recommendations on that aspect of the LP development. We believe that as a province and society we should be striving to reduce the emission of toxins to our planet where we can.

Some months ago Mr. Richard Cloutier from CJOB came out to the Swan Valley to do a story on the LP proposal. We took Mr. Cloutier on a tour on the roads around the mill during the morning when it was operating. And what we saw was a purple haze at ground level, adjacent to the LP mill, and for some miles around the mill. This is, of course, after Manitoba Conservation allowed LP to stop using the RTOs on a temporary basis. Should LP be allowed to permanently operate in the absence of RTOs or equivalent technology, I expect that we will continue to observe purple haze under the level of contamination in the conditions they were going on.

What we observed on that morning was a

situation where those people living in close proximity to the mill were having to breathe that, for lack of a descriptor, crap. I want each of you on the panel to think about that. I want you to put yourselves in the shoes of these citizens, in the shoes of the young mother, and think about how you would feel if you were forced to breathe that contaminated air.

A fellow by the name of Pierre Trudeau once suggested that the measure of a society was how it treated its weakest members. In the context of the LP mill, the measure will be how those who live closest to the mill are treated.

Based on what I saw that day, I feel absolutely certain if Premier Doer's family was living adjacent to that mill, and he saw what we saw, those RTOs would have been back in operation in the blink of an eye. My vision of the province is that everyone, from the least of us to the greatest, has the same fundamental human right to breathe clean air. It is up to you on the panel to demonstrate that in our province the little person has the same rights, not just on paper, but in reality, as a political elite.

Thank you very much for your time and

indulgence.

THE CHAIRMAN: Thank you Mr. Soprovich. Are there any questions from the panel?

MR. GIBBONS: Just a point of elaboration. Mr. Soprovich, towards the end of your presentation when you talked about complementing epidemiological study, you talked about the idea of having a study that would examine the performance of the RTOs by looking at natural gas comsumption as a surrogate. Could you just briefly elaborate on that?

MR. SOPROVICH: Well, I guess if you are an expert on something -- let's step back for a minute. We know that monitoring devices can be tampered with and data can be altered, especially if it is an issue of self-reporting. Sometimes if you are an expert you can look in other directions to see if things add up. So, for example, if LP was -- and again, I'm not an expert in this, I'm just throwing this out as a wild possibility, I would suggest. We have to get an expert to look at this. But if LP was saying they were operating their RTOs 24/7, 365, and they weren't using gas, they probably were telling us the truth. So

that's a surrogate, in terms of testing the information, testing the premise.

MR. GIBBONS: Thank you, Mr. Soprovich.

THE CHAIRMAN: I realize we are running over a little bit of time, I realize we have a little bit of a period in between the next presenter, so if I could beg everyone's indulgence here, we will continue on here with Iris Jonsson, and after that we will break for a coffee.

MS. JONSSON: I am only going to be about ten minutes.

THE CHAIRMAN: Please proceed.

MS. JONSSON: Good afternoon panel members and citizens of the valley. The title of my little talk is "Governments Can Create Great Green Societies." I would like to speak this afternoon about the role of government in our lives and in the situation we are addressing today and tomorrow.

In the April of 2009 edition of the business magazine "Corporate Knights," spelled with a K, they give an analysis of the first annual green provincial report card, looking at how our provinces rate as green societies. They

say a green society enables a great society. Then the editor asks, who has the power to make a great green society? Companies, citizens, the Federal government, and cities all play a role, but no single actor can do more to set the stage than our Provincial Governments, because they are in charge of things that matter, energy, forest and agriculture, and they have significant power over cities. The Corporate Knights agreed that no report card is ever perfectly fair, but they have done their best to transparently collect the most recent outcome-based data that directly relates to our relationships with water, air, land, energy and food, to name a few.

They examine toxicity in the air of each province using toxicity units, toxic releases in tonnes multiplied by their toxicity score. In terms of emission intensity in air, I'm quoting, "Manitoba performed abjectly with a high number of toxicity units." Ontario came in with the highest toxic emission of all the provinces. This probably relates to why Ontario is in the process of developing air emissions standards to bring their emissions under control, while Manitoba appears willing to allow an increase in emissions

in our province.

I would like to shift focus now to the happenings in the 1990s, which have been and will be covered in detail by other members of the group. However, I would like to refer to the involvement of government at that time.

When Louisiana Pacific was preparing to set up their mill in this valley, they held public meetings to let us know we had nothing to worry about. They reassured us that they were installing state of the art pollution control equipment called Etube, a wet electrostatic precipitator. I was a member of the Concerned Citizens group that was formed at that time, and several of us contacted the citizens of Dawson Creek in B.C. You may have heard of that place, where there was a LP mill with an E-tube for pollution control. The people there were most unhappy about the mill and complained about an increase in illness, especially amongst the children. They blamed the emissions from the mill stacks for this situation. We were urged by these Dawson Creek citizens to follow the lead of the U.S. and get LP to install the RTO pollution abatement device.

Also, our newspapers at the time provided plenty of information about difficulties that the U.S. government was having with Louisiana Pacific failing to comply with the national emission standards of the time.

So to protect the health of the people of our valley, we made presentations at the CEC public hearing in 1994. And as a result, LP agreed to install the RTOs. But where was our Provincial Government at that time? Did they do any research into the functioning of an oriented strandboard mill and what to expect when one is built in our neighborhood? Did they investigate the various types of pollution control and the possible results for the community? No, they did not. They only said there would be jobs, but not at what possible expense. They left it up to the Concerned Citizens of the Valley to do their job for them, and we did it.

The Louisiana Pacific mill was constructed in our valley in 1996. On January 8, 2009, our Provincial Government quietly granted approval for LP to stop using the RTOs on an interim basis. This followed LP pleading their case in November of 2008, that if operating costs

could not be reduced, the mill might have to close.

And did our Provincial Government let the citizens know that the RTOs might have to be shut down, and later that they actually had been shut down? No. We were kept in the dark for some time. We did not have a corporate knight to remind our Provincial Government that they have the power to make a great green society, because they are in charge of things that matter, energy, forests and agriculture.

Near the end of January 2009, we learned from the Star and Times and the Winnipeg Free Press that LP had applied to permanently stop using the RTOs and to increase the amount of toxicants that it will emit to this valley.

So I ask, what could our Provincial Government have done when faced with this challenging situation? They have a company which provides jobs to its citizens saying it has financial problems and wishes to save money by removing pollution controls, which will result in a considerable, but unknown increase, in health threatening emissions which will negatively affect the citizens.

So the question, what could they have done? They could have done what the concerned citizens have done; become informed. They could have utilized that enormous source of information, the internet, for example. There is an oriented strandboard website, osbguide.com, which describes in detail what happens in an OSB mill. If you remember, one of the reasons LP gave for being able to close down the RTOs was their construction in 2004 of an improved single pass dryer. The OSB website could have told the government that although the new dryers do reduce the environmental impact because of lower dryer temperatures, the device to eliminate the harmful chemicals, RTO or equivalent, are still described as part of the function of a mill which uses improved dryers.

Also the website states, and I quote:

"Mills are permitted by environmental control authorities to allow only a very small amount of carbon monoxide, nitrous oxides, and volatile organic compounds to be discharged per tonne of product produced."

And this is just in reference to the dryer stack,

and press stack emissions are dealt with later.

I'm hoping that our environmental control authorities can take this into consideration.

From the internet government could have learned of LP's international sales manager's recent statement, and I'm quoting:

"We have invested a lot during a down market, which shows the commitment of LP to expand internationally."

That would have given the government a more balanced view of LP's financial situation. They could have learned about the new better pollution control device, biofiltration, which is as we have heard is 90 per cent less expensive to operate and has a much smaller carbon footprint.

There are many other helpful constructive ideas that government could have learned, and you will hear all of this in detail from other members of our Concerned Citizens group.

With knowledge comes the ability to speak up and intervene, to feel free to propose alternatives, to work with this powerful company, so that the citizens of Swan River Valley do not

have to suffer from either negative health effects or loss of jobs. This is how governments can inspire and create a great green society. Thank you.

THE CHAIRMAN: Thank you, Mrs. Jonsson. Are there any questions from the panel for Mrs. Jonsson?

The only question I have for you, Mrs. Jonsson, is you mentioned the Ontario air policy in terms of their having more stringent air emission limits. Are you suggesting, or is the thought that Manitoba should have a more specific air policy, and should that follow somewhat to what the Ontario approach is?

MS. JONSSON: I'm certainly saying that, yes.

THE CHAIRMAN: Okay, thank you very much. If there is no further questions from the panel, I would suggest that we will be reconvening probably just prior to 3:30, when our next presenter is scheduled. So please feel free to help yourself to anything at the back of the room. Thank you very much.

MR. SIGURDSON: I have one more comment here on information that I submitted here,

it is directly from the LP website, and it says that the conversion from RTOs to RCOs reduces natural gas requirements by at least 50 per cent. So, you know, in those figures that LP was using on greenhouse gases that they were going to reduce, we could say they are going to be reduced by half if they went to RCOs.

THE CHAIRMAN: Thank you very much.

(Hearing recessed at 3:08 p.m. and reconvened at 3:30 p.m.)

THE CHAIRMAN: If I could have everyone's attention, please? Could we please have our seats and grab a coffee and cookie, or whatever, and we will reconvene.

We have two more presenters for this afternoon, and I will point out right now that the panel will be reconvening again tonight at 7:00 o'clock. We have some more presentations scheduled.

So if we could have Mr. Kevin Neely come forward to the presenters table, and Mr. Henry Barkowski. And we will swear you in. Just have a seat and we will give you instructions.

(Kevin Neely: Sworn)

(Grant Wicks: Sworn)
(Henry Barkowski: Sworn)
THE CHAIRMAN: Sorry, Mr. Wicks, I missed your name here. Please proceed, I don't know in what order you are speaking in. You have the floor.
MR. NEELY: Hi, my name is Kevin Neely. I own a consumer electronics store called Merv's Audiotronic. With me is Grant Wicks. He is the general manager of the largest retailer in Swan River, the Swan Valley Consumers Co-op. We are local business people, and Grant and I are also directors on the Swan River Chamber of Commerce. We are here to represent the Chamber of Commerce with a membership of over 170 businesses and professionals in Swan River and the surrounding area.
We would like to thank Chairman Edwin Yee and the panel for letting us speak today. Our present is very short but to the point.
I personally sat before a hearing as president of the Swan River Chamber of Commerce some 14 years ago when Louisiana Pacific was in the process of getting started. This was an exciting time, as our local economy and population

were going backwards. LP was nothing short of a God send at the time. And as a personal example, I took the plunge to relocate my business to a location of twice the size of my former location. This would have never have happened if LP not come to the valley.

LP has been a great boon to our local economy, not only providing badly needed jobs that pay very well, but also creating an incredible spinoff of employment for logging and hauling, as well as new businesses to support their needs. As an example, when LP first came to Swan Valley, we were actually down to one tire shop and now have four. I could cite many more examples of the positive impact LP has had on our valley, but I think it is very obvious. LP also has been an incredible corporate citizen and has contributed to practically every positive cause in the valley. They have been a catalyst of the positive business environment and constant new construction, real estate and business expansion.

The business community has been deeply concerned about LP's future survival in the current recession and the lack of demand for their product. That being said, today we are here

concerned that they are treated fairly and treated competitively.

No other Canadian OSB mill is required to run RTOs. The new technology LP has invested in order to eliminate the need for RTOs with no health risk to the valley, along with the substantial reduction in greenhouse gases, is something that we fully support. It would be a sad story if Swan Valley's plant were to be shut down first due to more excessive costly requirements that others do not use.

In closing, we would just like to say we have faith in our government, and we know that the recommendations that they will make -- that they will make the right decision in this matter.

Thank you for allowing us to be here today.

THE CHAIRMAN: Thank you, Mr. Neely. Any questions of Mr. Neely from the panel? Thank you very much.

Our next presenter is Mr. Henry Barkowski.

MR. BARKOWSKI: My name is Henry Barkowski and I'm the mayor of the Town of Minitonas. I thank the commission for giving me

this opportunity to participate in the Louisiana Pacific Minitonas Oriented Strandboard Plant Air Emission Review. I make this presentation on the behalf of the Town of Minitonas.

Although I have a Bachelor of Science and MEd degree, I do not consider myself an expert on the scientific matters before this public meeting. You may be gracious enough to give me some acknowledgment of having some expertise in community by having had 31 years of experience on Minitonas Town Council and being a resident of the community for 39 years.

We are the community that is in closest proximity to the Louisiana Pacific mill. We are a community of about 500 residents. Minitonas is a great place to live and raise a family. We are a progressive, safe and caring community.

As a council, we are always concerned about health, safety and welfare of our citizens. As this meeting is concerned with health and safety of citizens, permit me to cite some examples of our commitment to the safety of our citizens.

Water testing: Our public water

utility provides high quality water to the community. Water is derived from an underground aquifer and is treated by osmosis and chlorinated, is monitored daily and tested by an authorized lab biweekly. Samples are taken from various locations in town. We have the reputation for having some of the best water in Manitoba.

West Nile mitigation: We eliminated areas where water could accumulate by improved drainage and storm drains. A major project is on the table to install a storm drain on Knox Avenue. We consistently cut grass in ditches. These efforts reduce or eliminate breeding ground for mosquitoes. We do not larvicide or fog for mosquitoes, preventing release of additional chemical into the environment.

Green space maintenance: We do not use chemicals on our green spaces such as parks and playgrounds.

RCMP annual public meeting: We are probably one of the few communities that meet on an annual basis with our RCMP to discuss issues of public safety. Approximately 30 to 40 persons attend these meetings. The RCMP also support an annual bicycle rodeo conducted by the Minitonas

Early Years School to promote safety for young cyclists.

Safe property: We enforce bylaws to provide safe buildings and property. Some 12 abandoned wells have been filled in the past two years, and 21 derelict buildings have been demolished in the past six years. We consistently monitor properties and have virtually eliminated properties that pose risk.

As this meeting is also concerned with the environment, I cite examples of how we have been proactive in undertaking some green initiatives that benefit our environment.

Tree planting: In the past five years over 2500 trees have been planted in the community. Most of these trees, deciduous and coniferous, were supplied at no cost by Louisiana Pacific.

Waste reduction: As a community we operate a recycling program under the Manitoba Product Stewardship program. In addition, we recycle scrap metal, tires, batteries, chemical containers and e-waste. We also promote composting by offering home composters at a substantially reduced cost.

Lagoon upgrade: Annually we spend approximately $25,000 to treat our sewage in the lagoon so that the BDO count is at proper levels before the effluent is released. At a cost of approximately 1.2 million, we, in partnership with the Rural Municipality of Minitonas, and the Federal and Provincial governments, are in the process of expanding our lagoon. In addition to increasing our capacity, the expansion will allow for natural treatment of sewage by sunlight, thus essentially eliminating our reliance on chemicals. This will have a positive impact on the quality of water that enters the Swan Lake watershed and ultimately Lake Winnipegosis. There will be no trace residue of chemicals currently used in treatment.

Our partnership with the RM of Minitonas will allow all residents of that municipality to have their septic waste dumped in the lagoon. This will eliminate the need for all sepic waste from being dumped untreated on to land.

Green energy: We operate a town hall and are presently installing a geothermal heating and cooling system that will eliminate reliance on

natural gas. The fire hall, the library, the arena and the curling rink are all on electrical energy. The municipal office and two public works sheds operated by the RM of Minitonas are also on geothermal energy. Hence 100 per cent of the rural municipality's buildings are high efficiency green energy buildings. The town council will continue to advocate for alternative green energy sources for all public buildings.

Public engagement: We also facilitate public engagement. All of our council meetings are open to the public and occasionally citizens come to express concerns. We are one of the few, if not the only, council that has anywhere between 15 to 30 people come to a meeting to review council's financial plan, capital plan and strategic plan. Citizens present their questions and concerns. We are also the closest level of government to our citizens and we interact with our citizens almost on a daily basis. If a dog is loose, defecates or voids on public or private property, we hear about it. If somebody's property becomes even slightly unkempt, we hear about it. If someone is driving an off-road vehicle, we hear about it, whether they are

breaking the law or not. Our citizens are not shy to express their concerns, nor do they lack the opportunity to do so.

We have not had any concerns expressed to us regarding the Louisiana Pacific's plan to discontinue the use of the RTO units. Since the early years of the operation of the Louisiana Pacific Minitonas OSB plant, a community liaison committee has included members of local, municipal councils. We have had a council member regularly representing us on the LP liaison committee. At these regular meetings there is open dialogue and communication and exchange between plant representatives and the council's representative on various aspects of the mill operation.

As early as 2001, Louisiana Pacific representatives have openly discussed their intentions to pursue the elimination of the RTO units and welcomed all questions from committee members. When we learned that Louisiana Pacific's plan to shut down the RTO units was creating some controversy in the media, we invited company management to come to a council meeting to discuss their plans. We had an informative meeting and asked many questions for which satisfactory

answers were provided.

I have cited some of these examples that demonstrate that, as a council, we are concerned about the safety and health of our citizens and that we practice and promote environmentally friendly initiatives. We also subscribe to making informed decisions.

From the data we have reviewed, it appears that nitrogen dioxide and carbon dioxide gas is emitted during the combustion of natural gas in the operation of the RTO units would be essentially eliminated. As well the consumption of non-renewable energy source would be eliminated, with substantial reduction of greenhouse gas emissions. The amounts of benzene and formaldehyde would be well within acceptable limits. The net result may possibly be even better air quality. The decommissioning of the RTO units appears to have no adverse affect on the environment or on health.

Benchmarks: As a council we were founding members of the Swan Lake Watershed Conservation District. The primary concern for our local CD is water quality. One of the activities of the CD was to do a water quality

study of the Swan River and Woody River, the two major streams in our watershed. Plans are to do the same for all the streams in the watershed. This data will serve as a benchmark.

Many of our residents were involved in a comprehensive health study to set a benchmark for the health of our citizens prior to the operation of the Minitonas OSB plant. These benchmarks can be used for comparison with future studies to see if the air emissions have any impact on human health or water quality.

Louisiana Pacific has proven to be a good corporate citizen. Some of us have known the manager, a local person, from childhood. He is a person whom we trust and with whom we have a good rapport.

At one time our fire department responded to fires at the bark pile or plant quite frequently. We raised our concern with mill management, and they had already undertaken initiatives to mitigate the fire hazard by eliminating the bark pile and installing fire detection and submission equipment at the mill which virtually eliminated calls to our fire department for firefighting services. Our

department has not been called to the plant for over two years. Several members of our fire department are employees at the mill, and management has cooperated in releasing them for all fire calls.

The mill brings waste to our nuisance grounds and they have been compliant with regulations regarding disposal of their waste. They have also provided bark sweepings for us to use as pit cover in winter when soil normally used for cover is frozen.

Our community has received a sizeable donations from LP Canada for local projects such as the Minitonas arena receiving $30,000 toward the artificial ice plant; 2,500 for Minitonas community sign; Minitonas library, $1,000 for renovation and restoration of a local historic landmark in our community; and our Minitonas volunteer fire department has received various donations in excess of 5,000 for equipment such as turn-out gear, communication equipment, et cetera.

Economic impact on the community: The LP Canada Minitonas OSB plant has been operating in the RM of Minitonas since 1996 and has provided approximately 175 jobs at the Minitonas OSB mill

and the forest resource division in Swan River. Their operations provide opportunity for income to many area businesses and related service providers such as CN Rail, loggers, truckers, truck owners and drivers, fuel distributors, and mechanical service providers.

Due to the current recession, over half of the employees are currently not working due to a recent curtailment in the production of OSB and the procurement of wood. As a result, there is a substantial decline in economic activity for local area businesses and related industries.

An emerging trend which is of concern to us is that of current LP and related industry employees seeking alternate employment outside the Swan River Valley and putting their homes up for sale. This reduction in employment will be crippling to our community.

As a specific example, within the last month we have hired an assistant town foreman. With only two weeks of local advertising, there were 19 applicants. All but three were either directly or indirectly related to LP's Minitonas OSB operation. Most of the applicants were

actually overqualified for the position. Normally we would have had five or six applicants with one or two suitably qualified. During the interviews we noted that the applicants seemed to have a sense of desperation.

Taxation is based on assessment and assessment of a business or industry is partially based on its ability to generate profit. As LP's assessment reduces, there will be a significant shift in the tax burden for the RM of Minitonas taxpayers with respect to municipal taxes. Other areas of the municipalities, including the Town of Minitonas, will see an increase with respect to education taxes.

The decommissioning of the RTO units will enhance the sustainability and viability of the plant by reducing the capital costs.

Should this public meeting find that the recent shutdown of the RTOs units at the Minitonas OSB plant have no detrimental impact on the air quality, the Town of Minitonas fully supports the permanent elimination of the RTOs units. This would be consistent with our belief, practices and commitment to the pursuit of environmentally friendly initiatives. It would

also sustain viable industry, communities, and contribute positively to the health and welfare of our citizens and their families.

Thank you for providing the opportunity to comment on an issue which is of substantial importance to our community. We trust the Clean Environment Commission panel, through this public meeting and in consultation with experts, will review all relevant data and make recommendations to the Minister of Natural Resources based on science, the environment, equity within the OSB industry, and with consideration that is in the best interests of our citizens. I respectfully submit this document.

THE CHAIRMAN: Thank you, Mayor Barkowski. Is there any questions from the panel for Mayor Barkowski?

MR. GIBBONS: Actually, I'm not sure if this is out of order or not, but Mayor Barkowski's submission actually raised a question for me that I would like to put to Mr. Neely and Mr. Wicks. It is a result of some -- is that something we could do? It is just an overall -- I have a sense of their --

THE CHAIRMAN: We will have to ask, if

there is a response, if you could come up and use the microphone.

MR. GIBBONS: They are still up there.

THE CHAIRMAN: Sorry, go right ahead.

MR. GIBBONS: The reason I'm not asking the mayor -- the Honourable Mayor about this is because being mayor, I know you are resident there, you live in Minitonas, and you have also said in your document that you had an opportunity to ask questions of LP and so on.

Mr. Neely and Mr. Wicks, can I presume that you are both residents of the area, and you live here and breathe the same air and so on?

MR. NEELY: Right.

MR. GIBBONS: Have you had a chance to attend meetings where LP has explained to you what they are doing and so forth, to the extent that you feel comfortable with the changes that they intend to make?

MR. WICK: They spoke, there was a presentation at our AGM this year, the Chamber of Commerce AGM, yes. They had a pretty inclusive presentation and there was an opportunity to ask questions and get answers.

MR. GIBBONS: So you feel comfortable

with those changes then?

MR. WICK: Yes, we do, as a chamber we do, yes.

THE CHAIRMAN: As a follow-up question I guess to Mayor Barkowski, you mentioned in your presentation as early as 2001 there was discussions with Louisiana Pacific about decommissioning the RTOs. And you mentioned in particular, you know, attendance at meetings and discussions that are primarily at the community liaison committee level. Was this communicated to your citizens as a whole, or how was this done?

MR. BARKOWSKI: Our representative reported back to council, but that was not necessarily communicated to the citizens at large.

THE CHAIRMAN: Okay. Thank you. With no further questions, we will adjourn, as there are no other presenters until this evening. So we will reconvene, as I mentioned before, at 7:00 o'clock this evening. Thank you.

(Hearing recessed at 3:54 p.m. and reconvened at 7:00 p.m.)

THE CHAIRMAN: Good evening ladies and gentlemen, if I could have your attention please? We would like to reconvene our meeting for today,

July 28th. We have three presenters on our schedule. Two of the presenters that are on first are with the Concerned Citizens of the Valley. I would ask Margaret Romak and Maria Kent if they could come forward to the presenters table?

That's fine, go ahead, we will work without copies, that's fine. First of all, you will have to take our oath.

(OFF THE RECORD)

THE CHAIRMAN: Can I have everyone's attention again? We had to make some copies, I think we are ready to go, I believe. So with the last few staples being done, we will proceed with the presentation with the Concerned Citizens of the Valley. And I will ask Cathy to swear in the presenters.

(Maria Kent: Sworn)

(Margaret Romak: Sworn)

THE CHAIRMAN: Please proceed.

MS. ROMAK: Does it matter to you if the one with the copies goes first or the one without?

THE CHAIRMAN: It doesn't matter.

MS. ROMAK: Okay. I will get started then. Good evening members of the panel, citizens

of Swan Valley. My name is Margaret Romak and I am a member of Concerned Citizens of the Valley.

The various groups that are presenting all want to persuade the government, through the CEC, that we each have the solution to the problem at hand. Our group does not have all of the answers and neither does LP. We believe that not all options have been looked at yet. There are certainly stones that have been left unturned. We have searched out as many answers as we can, but there are still questions.

The material we all present to you needs to be looked at analytically with an eye to the facts and not opinions. But can we discern what is fact and what is not?

(OFF THE RECORD)

THE CHAIRMAN: I have a hunch -- are you using Word Perfect or Microsoft Word?

MS. ROMAK: I used Microsoft Office.

THE CHAIRMAN: But you probably have the 2007, the latest version, and perhaps this computer does not handle the latest version.

MS. ROMAK: We will go without it. Everything is in your print-out when she gets it, she will just have to pass it around. I thought

it might keep the audience awake, but they are going to have to be on their own.

Can we discern what is facts and what is not? Corporations such as LP now rely more on PR companies than ever before. The public relations business is one of the fastest growing industries in the global market economy. The Louisiana Pacific Corporation has done business with Burson-Marstellar, the world's largest PR firm, with 63 offices in 32 countries. That company specializes in perception management on environmental issues, and here is a quote from them.

"Perceptions are real. They colour what we see, what we believe and how we behave. They can be managed to create positive business results."

Burson-Marstellar's environmental services have benefited industrial polluters such as Union Carbide, to handle the public relations crisis caused by the Bhopal tragedy in India in '84. Up to 25,000 died immediately and 200,000 have had permanent injuries. For ten years Union Carbide denied culpability with the help of Burson-Marstellar. They have also worked for

Exxon, who needed good PR to cover their business in the wake of the Exxon Valdez oil spill in 1989.

The peril to democracy posed by slick PR firms should not be underestimated. The whole reason for the introduction is so that when you consider LP's presentations, please remember the amount of power that they wield and the dollars they can use to leverage opinions in their favour.

I'm going to have to the ask the lady that is doing the copying for my first page. I'm going to have to go fairly fast because I have got five topics to cover. The first one will be comparing what the recommendations and promises were, some of them, out of the CEC hearing in '94 and what actually happened. The second will be a layperson's overview of RTOs, RCOs and biofiltration. Otherwise, the second title is, "There is More to This Issue Than RTOs or Nothing." LP's corporation financial outlook, who is most susceptible to emissions from the LP mill and why. And why our society has gone past the days of jobs versus the environment.

In '94, one of the main things that we pulled out of that document for our presentation was the part where the CEC panel recommended that

the public be involved intimately, all the way through any process when it comes to looking at environmental issues. And the quote I have here it says:

> "It is vital that the public's interest and involvement in environmental reviews be supported and facilitated in the future."

And this is how that was not met. Number one, the public was not informed that the RTOs had been shut off on an interim basis. Number two, there was a very small notice placed in the newspaper, which most people did not see, to tell the public about the request that LP was making to have the RTOs shut off permanently. Number three, we have asked Minister Struthers many times for a full public hearing and we were denied. Four, we have asked Minister Struthers for intervenor funding and we were denied. The public has had to fund its own research and work in its spare time to prepare for this meeting. So that promise was not fulfilled.

Participants in '94 were concerned about the environmental record of LP. LP said it did not appreciate being depicted as a bad

corporation.

Recommendation number 12 from '94 says:

"Pollution control equipment shall not be bypassed during the operation of the plant except under emergency conditions, as specified in the licence."

Why on earth would CEC have even put this into their recommendations?

In Montrose, Colorado, the LP facility, a LP supervisor was fired when he refused to tamper with the mill's pollution monitoring equipment. Criminal investigation showed tampering on 12 occasions by inserting foil into the monitor, pulling a protective lens off the monitor, and miscalibrating the monitor and turning it off. Admittedly, this occurred some time ago under different management, but this is the example of why government must remain vigilant in its role as the people's first line of defence.

The third item from '94, a community health study was recommended to compare the health of residents before and after the plant was built, to compare with other regional, provincial and

national rates. LP estimated the cost of the health study, and that's in there. Resolve health related issues which could arise in the future was another reason for having this community health study, and lung tests for the community similar to those provided to the employees.

There was a Dr. Kay Wotton was in charge of the study, but it was dropped. We are in contact with her and we will be getting a write-up from her about why that study did not go ahead. All we have heard is that there were roadblocks in her way. But rather than going with that, we are going to ask for a fact based document to pass to you.

We did find out that some residents blew into machines to test lungs before the mill was built, and nobody ever came back again. The health study was not done, which LP had estimated at a certain cost, and I figured it out by 15 years they have saved almost $1 million that that study was not done.

The next four questions have to do with the employees of the OSB mill. Was there a health study done on the employees of the mill? Was there baseline data or pre-employment health

assessments done? Has an assessment been done for each of the last 15 years on employees? Are the employees aware of the research that has been done into the risks posed by those working in an OSB mill? And I will be passing you the research along with that.

Number 4 from '94 said these things, and maybe LP has done every one of them, in that case, that's great, but I didn't have time to read through everything so I'm posing this to the commission to check it out for us.

> "Baseline ambient air, water, soil, flora and fauna monitoring shall be taken to provide baseline data prior to the construction of the plant. A schedule shall be established to ensure ongoing monitoring of water, soil, flora and fauna."

The corporation has said that 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 to be maintained in order to compare impacts on vegetation.

"Groundwater monitoring wells shall be installed and operated according to the requirements identified by Manitoba Environment."

They could also take water samples from the Sinclair River.

"Manitoba Government shall prescribe a reporting procedure for the environmental monitoring and ensure public access to the results."

As I said, maybe all of these things were done, but my next question is, were any of these done using independent monitors as well, not just LP monitors? And if we could have a report from somebody on that?

The last thing I'm going to do about the CEC hearing in '94 is to do with monitoring, compliance, enforcement and auditing. This was some of the things that were said: 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. Independent monitoring would be important to ensure the plant operates within its licence. As such a rigorous schedule for collecting and analyzing and sharing the results with the public could be established. The department said it would perform its own prearranged and unannounced tests. And in case anybody missed that, I will read that one again. Number four: The department said it would perform its own pre-arranged and unannounced tests. The corporation said one shift per week would perform preventative maintenance. The corporation said the emission control equipment would be operational 99 per cent of the time.

Number one, the two stations that were set up to capture the samples of air emissions were placed in the wrong area. We had that covered quite thoroughly earlier, but I will read the email to go along with that from Dave Bezak in Conservation.

"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

the facility emissions and, therefore, reflective of that impact."

Even worse than the fact that the monitors were not collecting, is the fact that Manitoba Conservation and LP were told right at the beginning, and for 15 years they have been told that by citizens, and nothing has been changed.

So with that in mind, I would like to read you a few quotes off of LP's website.

"They have a spirit of openness and transparency. They gather concerns and input from members of the community. They believe in 100 per cent compliance, 100 per cent of the time. Ethical behaviour at all times. High level of communications."

Manitoba Conservation promised it would do its own testing as well, both prearranged and unannounced. When they were asked if they had done any random tests, they said no. Ryan Coulter, Department of Conservation:

"My comments were specific to stack sampling. I'm not aware of any surprise stack sampling. I will

discuss your question with the regional office to see if they have anything to add."

Number four, does LP designate one shift per week to do preventative maintenance?

Number five, were they running the emission control equipment, RTOs, 99 per cent of the time?

To hear members of the community and others talk, the last statement is laughable, but how would we know? It seems our government was not checking up.

Remember my conclusion at the end of part two of this presentation. It went like this: Admittedly, this occurred some time ago under different management, but this is an example of why government must remain vigilant in their role as the people's first line of defence.

One of last quotes from the CEC hearing from '94 goes like this:

"But, as much as the people of the valley wanted jobs and other economic spinoffs related to the proposed project, they were well aware there could be impacts on the environment.

A number of people at the hearings were well informed about these potential impacts and offered the panel well prepared, insightful presentations. 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 LP to ensure minimal health and environmental impacts from the oriented strandboard plant."

Monitoring compliance, enforcement and auditing, I think we are missing some key parts of that equation.

The next section I have titled, there is more to this issue than RTOs or nothing. And I certainly am a layperson, I have read more about RTOs and RCOs than I had ever thought I would. But I have some interesting quotes here, which I'm very glad the United Steel Workers Union has written a document called "Securing our Children's World, Our Union and the Environment." And they

have greatly aided in my presentation.

"Solution to the environmental problems are well within our grasp, air and water pollution can be virtually eliminated by redesigning manufacturing processes, switching to cleaner products, installing good control technology, recycling more, toxic chemicals replaced by safer ones. The problems are not technical, they are economic and political. Our choices are to be victims of change or to control that change to the benefit of ourselves and our children."

The union has it exactly right. There is the technology now developed to control air and water pollution. We have to have good control technology, and that's what brought this, all of us to this table is that question.

I'm not going to sit here and give technological information about RTOs or RCOs or biofiltration. We have had many people in our group that have spoken that know a great deal about it, and all kinds of LP people here could tell you all about it. And we have expert

testimony coming to you before September 1st on this subject. All I'm here to say is that there are choices out there. This is not a matter of either the RTOs stay on or they stay off.

In the 15 years since the mill here opened, there have been new and improved emission control technologies developed. In fact, on the internet when they talk about RTOs now, they talk about third generation RTOs. There is a big difference just in what used to be available 15 years ago and what is available now.

When LP says either the RTOs are shut off or we will consider closing the mill, they are not looking at all of the options out there. There are a variety of choices to look at. A solution can be found, one that is cognizant of the economics of the day and one that will also protect the environment.

There is a reason why sayings become very famous, where there is a will, there is a way.

I'm passing to the panel 14 websites that discuss the pros and cons of RTOs, RCOs and biofiltration. I will not read through that right now because that's very detailed information, but

there is extremely promising things being used already by LP in the States in the biofiltration area. So none of this is things that are still yet to come, these things are up and working already.

And the last item I'm going to read for that particular presentation is from Rosann Wowchuk when she was speaking in the Manitoba Legislature in 1994.

"Madam speaker, when the announcement was made by the Clean Environment Commission that the RTOs would be installed in the LP plant, everybody was very pleased that we were going to have the best possible controls."

And that's what we are still after. Is it might not be the RTOs that are in there now, there might be something better and cheaper.

I have got to get my next package.

The next one is LP's financial outlook. Thank goodness for the internet, we were able to find informative material. This one is from March 23, 2009. And it is somebody from the Bank of America speaking.

"LP has successfully managed through

many business cycles and has strengthened its financial position in anticipation of the current downtown. This financing should give LP the financial flexibility to continue to expand its capacity and grow its market share during challenging economic times."

All of these have the websites on them, so you will be able to find them quite easily.

The second one, February 27, 2009, of course everybody here would like to note that Frost is the CEO of LP.

"As we had anticipated, 2008 proved to be a very challenging year for our businesses and we expect 2009 to also be difficult, Frost said. Our goal this year is to position LP to emerge from the global economic crisis stronger than before. Based on our action and plans to enhance liquidity, we believe that when this economic downturn subsides, we will be well positioned to compete and prosper, Frost concluded."

Third article, March 26, 2009:

> "Louisiana Pacific has signed a deal for 100 million asset backed credit line with the Bank of America and Royal Bank of Canada. We believe that this capital availability, along with our previously announced actions, will reduce costs and conserve cash, and it will allow us to get through these poor market conditions and position ourself to take advantage of the economic rebound as it occurs."

Fourth one, November 18, 2008, this is a direct quote straight from the request to amend the Manitoba Environment Act, it is from LP, of course:

> "With annual operation and maintenance costs of over $3 million, the economic burden of operating RTOs places LP Swan Valley at a significant competitive disadvantage as compared to the rest of the OSB industry in Canada. With the current market conditions forecasted into 2010, it is highly conceivable that the Swan

Valley OSB mill will shut down indefinitely, directly impacting 175 staff and hourly personnel, and various associated contractor log handlers should the requirement to operate RTOs remain."

There is not a word in there about options. March 25th, 2009, I do not have this website, if I find it, I will pass it to you, but I will read what I do have.

"This year will be an endurance contest, but companies that adapt and survive will prosper as the economy rebounds, according to Rick Frost, LP Corporation's CEO."

Sixth article, 18th of March, 2009, it is talking about the future of OSB, not just LP.

"The demand is expected to push up prices in 2010. Structural panel prices will climb quickly when the expected market rebound occurs in 2010, as a greatly reduced capacity base strives to meet increasing demand, according to Greg Lewis, director of wood products San

Francisco based industry information provider, RISI. This will help lift North American wood panel demand, particularly OSB, in late 2009 and in 2010, when a 25 per cent increase to 40 billion feet squared is predicted."

I want you to understand this isn't the Readers Digest that is forecasting this. Wood Panels International readership comprises senior executives in that industry such as managing directors, chief executives, plant production managers, project managers, sales and purchasing executives, and technical research and development.

Seventh article is from July 1, 2009: "LP expands into Australia, Japan and Britain. LP has met four potential UK wholesale distributors to represent its engineered wood products. The move comes as LP accelerates its plan to also enter the Australian and Japanese markets, as part of a concerted campaign to grow their market share and to capitalize on Weyerhaeuser's retreat from the

international engineered timber market. We have invested a lot during a down market which shows the commitment of LP to expand internationally, said Al Huber, LP's international sales manager of engineered wood products."

The eighth one, wood based panel industry, an analysis, 2009. The reason I'm going on at length about the economic forecast for LP is that that's what they were using as their reason for shutting off the pollution control, so I think we need to address it quite thoroughly.

"The North American market remains extremely challenging, still driven by the U.S. housing and credit crisis. One of the challenges that both North America and European panel makers are facing is increased imports from China. The turnaround in the housing market in North America is not expected to be met until 2010, and experts believe that 2009 will be a transition year with tough conditions similar to 2008. In the year 2009,

downward pressure is likely to continue, but from 2010 upwards demand is likely to catch up."

And the last one is interesting. I will just have to have water here. It is a phone transcript that Rick Frost put on line when they were talking about 2009 earnings, June 2009.

"It feels to me like we hit the bottom in February and that is the consensus of my LP management team as well."

Rick Frost.

"If we exclude OSB mills..."

Now, this is a question over the phone to him, coming from Peter Ruschmeier from Barclays Capital.

"If we exclude OSB mills that are down, I am curious if your U.S. and Canadian assets are running at similar operating rates, and given the decline in the Canadian collar, is your profitability starting to get back to parity between the U.S. and Canadian mills?"

And Frost answers,

"Yes, it is pretty evenly split on

operating rates between Canada and the U.S. Obviously the dollar going the way that it did helped take one of the disadvantages that we had about having so much production out of there. The problem is, a lot of that Canadian volume is sold into the most distressed OSB market in terms of pricing, which is the west. They are kind of offsetting each other."

So I'm going to sum up this presentation about LP's finances this way, using again the United Steel Workers Union document. I have to thank them again for helping me with my work. That is the union that represents the employees that work here.

"The overwhelming majority of our members work today for large multi-national corporations who compete globally with little regard or loyalty to their countries of origin. Some companies have threatened to shut down, pitting worker against environmentalists. Additional controls would be just too expensive

these companies say, and workers who want to save their jobs had better line up behind their employers. That is a familiar corporate strategy. An unregulated global economy that increases the gap between rich and poor and ignores sound environmental science will ultimately destroy the good jobs and the environment. The enormous downward pressure of the global economy has eroded environmental standards. The current path of globalization traps us all in a race to the bottom, in which short term corporate profits demand ever lower labour and environmental standards. For many years companies have tried to use economic and environmental blackmail on the union and on the public. There is the corporate economist to tell us that if we persist, the company or the industry will fold with hundreds or thousands of lost jobs. Companies usually try to externalize costs to

make somebody else pay for the real cost of production. Often these externalized costs are much larger than the costs the company avoided by refusing to improve conditions in the first place. But the company's concern is with its own bottom line, not the cost to society."

So that's the end of that presentation.

The next one is who is most susceptible to emissions and why? This is probably the most important part of our, or at least of my presentations. People on our panel are not at risk from what is coming out of the LP mill, we are older and we don't live downwind from the mill. We are not speaking on our own behalf in many cases. We are speaking for the people who either can't or won't come to this microphone themselves, or who are too young to do so. What we have compiled in this list is far from complete, but it is only what information we could pull together in our limited time. This is something that needs to be researched and analyzed by experts. It is too important to be left to ordinary citizens scouring the internet. We need

to be aware that just because we do not see an immediate cause and effect from pollution, that everything is fine. It is our children and their children that may pay the biggest price.

Seven generation principle: Seven generation sustainability is an ecological concept that urges the current generation of humans to live sustainably and work for the benefit of the seventh generation into the future. In every deliberation we must consider the impact on the seventh generation, even if it requires having skin as thick as the bark of a pine. And that comes from the Iroquois.

One generation being about 20 years, times seven is 140 years. There is a lot of chemicals that after they were used for not even 40 years, our society was starting to pull them off the market because they realized that they had made decisions that did not look at the long term damage that they could cause.

This list, again, will have referenced websites, you are going to be able to check out anything that we say.

Although everyone is at risk from health effects from air pollution, certain

subpopulations are more susceptible, the elderly, people living with cardio respiratory problems, such as COPD and asthma, appear to be some of the most vulnerable. People who work and play outdoors are at a greater risk of exposure. Children are uniquely susceptible because they breathe more deeply than adults and because their bodies are still developing. The developing brain is much more sensitive than the developed brain. That means that children and pre-born. The impact of chemicals especially on elementary school children can be lifelong.

By the way, most times when you hear quotes about the effect of chemicals, that's called a referenced concentration and that's based on adults, not children. Our scientists are just now starting to catch up and realize that there need to be referenced concentrations based on children, not just adults.

Obese children are more susceptible. Evidence is accumulating that environmental exposure to air pollution can cause infants and pre-born to be born premature, low birth weight, or with certain birth defects. Children may be more highly exposed to contaminants and they may

be more vulnerable to the toxic effects of contaminants. They generally eat more food, drink more water, and breathe more air relative to their size than adults do. Little children put their hands in their mouth and play on the ground. And scientists are finding as they study these toxic chemicals that they are having effects at much lower doses than they ever thought possible.

Children's immune defences are not fully developed. Early exposure, which means children, to environmentally persistent free radicals, present in air born ultra-fine particulate matter, affects long-term lung function. Very dramatic things, when you go to the sources on this, it is very amazing.

As it is stated at the beginning, everyone is at risk from air pollution, but those listed here are the most vulnerable in our society.

I would also point out that there is a general belief in the valley here that, well, that stack is blowing away from Swan River, the Town of Minitonas, so it is not much of a problem, it is blowing into the bush, but I think we might find it a little different.

Canada is a signatory to the United Nations Convention on the rights of the child, which defines a set of fundamental rights of children and obligations of government. One of the rights that the United Nations says that children has is a healthy environment. And here I'm going to give credit where it is due, to the Provincial Government. They set up, under Gary Doer when he was first elected Premier in 1999, a very excellent program called Healthy Child Manitoba. He publicly committed his government to making early childhood a government wide priority. Ministers have been meeting regularly to put children and families first. There is seven or eight Provincial departments working on this together. However, when this government allows increased emissions, it is violating its whole philosophy of healthy child. For example, one of their slogans is, when you are pregnant, no alcohol is best. We would like to see them add, when you are pregnant no benzene is best, or when you are pregnant no formaldehyde is best. Their slogan has been, when we get it right for our kids, we get it right for all of us. I would challenge them to rethink their opinion on the

emissions.

And that brings me to the last item that I have, which is I have stolen the name from, there was a U.N. report in 1987 by Brundtland that was titled "Our Common Future." And whether we are sitting here as a panel, LP, community members or the concerned citizens, we all have a common future. What decisions we make today is going to be the future we live with.

Workers do have an understanding of environmental issues. 100,000 North American workers die each year from workplace diseases that are caused by the same chemicals that later find their way into our air and water. The environment outside the workplace is only an extension of the environment inside.

Employees have a role to play in this environmental reform and sustainable growth. In the lean mean free trade world, pressure is on health and safety standards. Environmentalists and workers must begin to work together for solutions, aware that the worker has the most to lose. Employees should not be expected to make sacrifices and lose jobs because of environmental regulations. It is the government's role to

support employees' income when environmental issues arise.

Future sustainable economy must provide good jobs and protect the environment, not one or the other. We have to find ways to meet environmental objectives without imposing undue hardship on working people and their communities. It is fundamentally unfair to require working people to absorb the cost of environmental controls that benefit society as a whole. The only answer is to link environmental reform with economic justice. Cleaning up the environment and improving public health should never be accomplished on the backs of the workers. We need to protect workers and their communities from corporate practices that release toxic chemicals into our workplaces and our neighborhoods, endangering us all.

Can the destruction of our environment be stopped, and if so, who is going to pay the price? Some would have us believe the problems are not as serious as we think, or they can be left to somebody else to deal with. And others say pollution is just the price of progress.

"We believe the greatest threat to our

children's future lies in the destruction of their environment. Scientists are very clear that escalating human impairment of our environment will rapidly and irretrievably change the ability of human beings to survive on the planet. Good jobs, a clean environment, a safer world. It is our children's world, we must not fail to protect it."

Every single quote that I just read came from the United Steel Workers Union document already cited, Securing our Children's Future, Our Union and Our Environment. And it seems to me they could teach LP a few things about how to write things that mean exactly what they say. Good jobs, a clean environment, a safer world, that sums the whole thing up.

Here is four questions that I have. So why are so many of the employees speaking in favour of LP decommissioning the RTOs? Why did none of the union reps at the local level, district level or federal level wish to speak to our group? Why did most of the municipal councils

back up LP's request? Why did the majority of this valley choose to remain silent on the issue?

It is because of one statement LP made:

"With the current market conditions forecasted into 2010, it is highly conceivable that the Swan Valley OSB would shut done indefinitely."

That is economic and environmental blackmail.

Our group, the Concerned Citizens of the Valley have been accused over and over of fear mongering. The definition of fear mongering is spreading discreditable misrepresentative information designed to induce fear and apprehension.

We have asked questions. We have spent months reading and researching. At long last we are able to put before the CEC the information that we have come up with and the questions that we could find no answers for. We have not spread misinformation and we have had no agenda to induce fear or apprehension.

My closing line is the same as my opening line, many months ago, that I wrote to Minister Struthers. We Canadians deserve the same

level of protection from harmful emissions that LP affords its own citizens. They have not turned off any pollution controls in the States to save money.

And the very last quote belongs to Wendell Berry:

"Whether we and our politicians know it or not, nature is a party to all of our deals and decisions, and she has more votes and a longer memory and a much sterner sense of justice than we do."

I will be open for questions.

THE CHAIRMAN: Thank you, Ms. Romak. Does the panel have any questions?

MR. GIBBONS: One quick question, it was just a reference that you made earlier about the health studies not done. Could you elaborate on what you are referring to there? There was a baseline study in '95, and you are speaking then of follow-up studies? Is that what you are talking about?

MS. ROMAK: I'm speaking of the health study that was supposed to be ongoing, that Kay Wotton was in charge of. I have tracked her down

on the internet, she has been doing some work in Pakistan and all kinds of places. She is a very bright doctor.

We are getting in contact with her to ask if we might have a written report from her about exactly why she backed out of this health study. Because it does you no good for us just to say, oh, I think, you know, there were roadblocks, which is what I was told. Well, that tells you nothing at all. So we will try and get it on paper for you.

MR. GIBBONS: Okay.

THE CHAIRMAN: Thank you, Ms. Romak. There is a lot of information here, it is not that we don't have a lot of questions, it is just that we need time to digest all of this information. Thank you again.

Please proceed, our next presenter, Maria Kent.

MS. KENT: Thank you, hi. I'm speaking to the panel today just to express my concerns about Louisiana Pacific's application to decommission its RTOs. I'm not an expert. I don't know what is currently regarded as mathematically safe levels of pollutants, I can't

do that math. But I'm very grateful for the opportunity to stand before you and share my story and my concerns about this issue.

My concerns are twofold. I'm immediately and primarily concerned about the potential effects of this decision on the health of myself and my family, particularly my 16 month old son, as well as the residents of my community and the communities surrounding the plant.

Secondly, I am concerned about the social implications of a decision to do this. I believe that Canada was moving forward with a national strategy to decrease levels of pollution. We are, from what I understand, in phase 2 of the Canada wide standards for benzene control. Are our leaders planning to step back in time or move forward toward a greener, cleaner and healthier Canada?

I first learned that LP had temporarily decommissioned its RTOs in our local paper. I was shocked and outraged that our government would allow this risk to the health of our community without, it seemed to me, fully reviewing the issues.

I actually wrote to the CEC at the

time with questions about this, and these are questions that I'm still asking to everyone that I can. And let me be clear how difficult it is for me to stand here and talk about this issue. I have certainly not jumped on a bandwagon. After doing my own research and becoming informed to the level that I could, I have taken a stand on an incredibly sensitive topic in the valley, that causes a great deal of stress to discuss. I am standing for the health of the people in this valley. I'm standing for the health of my family and my son. It is outrageous that the company would provide a community with the ultimatum of pollution control or jobs. And it is devastating to me to know that other livelihoods are at risk and have already been impacted.

Yet I know that I have a reason to be concerned. First, I have yet to see a health risk assessment provided by LP that is written by an independent third party. And my questioning of the validity of LP's health assessment seems absolutely appropriate when you consider that the first chemical that they have assessed, which is formaldehyde, is assessed using the CIIT standards, rather than an IRIS assessment that is

generally in use. The CIIT standards are much lower and are inconsistent with the health risks considered by our Federal Government.

So I have been asking questions, and I have not received very many answers. First, why are we back here? What really has changed? The citizens of this community fought this fight well over ten years ago. At that time the Commission came out with recommendations that protect the health of the people of our valley, because of the residents who chose to stand up and take a risk, despite the very real personal costs to them.

I understand that the LP plant has adopted some environmentally friendly practices and they should be commended for that. However, it is plain as day to me that suggesting that the RTOs can be turned off because these practices serve as a replacement is grossly untrue. If the bark burners really eradicate the need for RTOs, then why would the company be applying for an increase in its emissions limits? I do not understand how our government has considered this request to decommission RTOs when I look at the information around me.

Increasingly, science is showing that

we have not been protected enough from the toxic effects of chemicals. It didn't take very long to find this magazine, a consumer guide around products that have been shown to cause cancer. And I can give you a copy of this, I have only got one copy, but I would be happy to do that.

When I look at the information provided by Health Canada on the current causes of hospitalization and deaths, it is mostly due to heart and lung disease and cancer. This consumer guide that I have got states that in the 1970s, one in five people had a life time probability of developing cancer. Today, one in 2.3 Canadian men and one in 2.6 Canadian women are expected to develop cancer over their lifetime. I'm one of these statistics. I had cancer, a malignant melanoma when I was 16. And I heard on CBC the other day that this is becoming increasingly common.

To this point the onus has been on prevention from individual preventative practices, I need to wear a hat and sunblock, for example. But we all know that this is only part of the solution. The incidence of chronic disease has increased substantially these past decades, and

now that we understand there is a link between pollutants and diseases such as cancer, we need to do what we can to prevent these diseases from happening. Across the board we need to see higher standards, not an increase in emissions limits. Government and industry now have a huge role to play.

THE CHAIRMAN: Sorry to interrupt you, we are having, our recorder is having some problems keeping up with you. If you could just slow down a bit, we need the transcript. Thank you. Sorry to interrupt.

MS. KENT: It is obvious to me that as a society we are not doing enough when I see that we are exposed on a regular and ongoing basis to carcinogens, reproductive toxins, neurotoxins and endocrine disrupters. Yet research is only half complete. We don't know how many of these chemicals interact inside our bodies. And when doing a health risk assessment, how often are the micro-environments we live in considered? We don't live in a vacuum where LP's increased emissions are the only ones that matter. We live in a valley, a valley that relies heavily on agriculture and its associated chemicals; in homes

where we are already exposed to some levels of these contaminants. Like a good pharmacist, the committee needs to consider this decision's impact on our health within the context of our true environments, before making a decision to decommission pollution controls.

I'm aware that this multitude of chemicals goes far beyond LP, however, within this context we are talking about LP emitting some very dangerous chemicals. My understanding is that, at a basic level, toxic pollutants the plant emits include VOCs, benzene and formaldehyde, among others.

So what are the effects of some of these pollutants? I have learned that formaldehyde and benzene both meet the definition of toxic substances under schedule 1 of CEPA as of December 27th, 2006. They are both classed as carcinogenic to humans. Benzene is a non-threshold toxicant, a substance for which, according to CEPA, there is considered to be some probability of harm for critical effects at any level of exposure.

The Canadian Council of Ministers for the Environment have recommended that benzene

exposure be reduced wherever possible. They have implemented Canada wide standards for benzene, of which Manitoba is participating as of 2000.

Our government is now considering an increase in benzene emissions to ease the economic stress on a plant. It strikes me that this can be liken to a pregnant woman who is given an alcoholic drink to ease her stress. The first is somehow considered reasonable, the second absurd, yet both are risking the health of the new baby.

Aside from being classed as a toxic substance and carcinogen by CEPA, formaldehyde can cause irritation of the eyes and respiratory tract and affects lung function. According to Environmental Defence, respiratory toxins affect the breathing system. When these toxins are inhaled, they affect the nasal passages, pharynx, trachea, bronchi and lungs. These toxins cause both acute and chronic illnesses such as bronchitis, pulmonary fibrosis, emphysema, cancer and general breathing problems. As irritants, respiratory toxins can also increase the severity of respiratory infections and can aggravate asthma.

In their 1998 document, National

Ambient Air Quality Objectives for Particulate Matter, Executive Summary, this actually I believed initially it was by Health Canada. I found this document on the Health Canada website, but apparently it was written by CEPA, a CEPA working group. The article states:

> "While the mortality and hospitalization end points have been emphasized, they are really only the tip of the iceberg with respect to particulate matter induced human health effects. Other adverse effects such as bronchitis, reduced lung function, restricted activity, absenteeism, and increased costs for medication are evident and are occurring at ambient concentrations currently experienced within Canada."

The more I have looked into the effect of toxic chemicals on our health, the more concerned I have become. My generation has been left a toxic legacy. Not only are we increasingly introduced to chemicals, it generally falls to government or advocacy groups to prove that chemicals cause deleterious effects to humans or

to the environment. Unfortunately, by the time this can be proven too many people have become statistics. They have already died or they have been chronically ill from the effects of these chemicals.

In addition, while maximum exposure levels have often been studied, low does toxicity has not. This needs to be considered before we increase the levels of toxic pollutants in our community. And if low dose exposure has not been studied, it should be. In fact, an Environmental Defence's Report, "Polluted Children, Toxic Nation, a report on pollution in Canadian Families," the author states:

> "Historically, significant studies on the health effects of chemicals involved feeding high doses of a single chemical to laboratory animals. Results from these studies have lead to the false assumption that only a high dose of the chemical will negatively affect human health. There are several problems with this assumption, beginning with the fact that by its very nature, a high dose

test does not involve a test for health effects at low levels."

When looking at statistics on the health impacts of pollutants, please remember that every statistic is a life impacted by pollution, and often a life ended by pollution. And please also remember that because vulnerable populations are more susceptible to the effects of pollution, that statistic you see is very likely an infant, a child or an elder.

Again, I quote from Environmental Defence, they reported that cancer is the most common cause of death by disease in Canadian children. The most common form of cancer in children is leukemia, followed by cancers of the spinal cord and brain. In children, exposure to carcinogens in the womb during rapid fetalcell division contributes the greatest risk to developing cancer.

The health of our valley will be impacted by your decision. I don't want a friend, family member or any child to become a statistic of a future study on the toxic effects of chemicals. And I certainly don't intend to have my family, my son, become one of those statistics.

Thank you.

THE CHAIRMAN: Thank you, Ms. Kent. Are there any questions?

MR. WAIT: On the first page of the handout, the third last paragraph, comparing the CIIT standards with the IRIS assessment, the last sentence is written, the CIIT standards are much lower. Is that meant to mean they are less stringent or more stringent?

MS. KENT: They are less stringent.

MR. WAIT: Okay.

THE CHAIRMAN: Are there any other questions on the panel?

The only thing I would note, Ms. Kent, you had a magazine you might want us to read. If you would -- we probably don't need the magazine, but if you could leave us the reference, the title and publisher, we might be able to track it down.

MS. KENT: Sure. No problem.

THE CHAIRMAN: Thank you very much.

Our last presenter of the evening is Sophie LeDeux.

SPEAKER: She is not able to be here, couldn't come.

THE CHAIRMAN: Okay. Well, with that,

I thank the presenters, all of the presenters that made presentations today. And everyone in attendance, again, thank you for attending and participating in these public meetings. We will reconvene tomorrow in this very same location at 1:00 o'clock.

(Hearing adjourned at 8:03 p.m.)

OFFICIAL EXAMINER'S CERTIFICATE

I, CECELIA REID, a duly appointed Official Examiner in the Province of Manitoba, do hereby certify the foregoing pages are a true and correct transcript of my Stenotype notes as taken by me at the time and place hereinbefore stated.

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Cecelia Reid

Official Examiner, Q.B.