

Crofton Airshed Citizens Group Meeting¹

Crofton Community Centre, January 20, 2004

Meeting Transcript²

Moderator's note – *The meeting commenced with two songs from the Raging Grannies. The lyrics have not been included in this transcript.*

Mr. Herb George [representing the Halalt First Nation and welcoming the audience to their traditional territory]: The First Nations individuals have the same concerns as the other population, and the two valleys the Chemainus Valley, the Cowichan valley and the First Nations in Keifer Island. So on behalf of the First Nations people I would just like to offer a prayer to assist us and guide us on this occasion that we may all part best friends. Thank you.

Michael Ableman: I'd like to introduce our moderator of this evening, Raymond Penner comes to us from Vancouver, he is with the Strategic Action Group, he has twenty-five years experience as an independent facilitator in public consultation processing, he works on a variety of topics including ministry and community relations, development of environmental regulations and litigation of construction impacts on communities. So, I'm going to turn it over to Raymond, and he will be running the meeting from here on out.

¹ In August 2003, NorskeCanada's Crofton Division applied to the B.C. Ministry of Water, Land and Air Protection for a permit to allow the mill to conduct a 30-month trial to use tire-derived fuel, coal and old railway ties as supplemental fuels with wood waste currently burned in its No.4 boiler.

Following an Open House conducted by NorskeCanada in November, 2003 to provide the community with information on this application, concerned citizens formed the Crofton Airshed Citizens Group (CACG). The meeting for which this document provides a transcript, was organized by CACG to share information regarding existing and potential air emission from the Crofton Mill and to allow community members to provide comments with regards to these matters. Approximately 500 people attended the meeting that ran from 7:00 pm to approximately 11:00 p.m. Following two introductory songs by the Raging Grannies and a welcoming prayer by a representative of the Halalt First Nation, the first portion of the evening consisted of 6 presentations of approximately 10 minutes each. The remainder of the meeting was devoted to audience participation with individuals asking questions of the panel and/or making comments.

² This transcript has been created from audio tape recordings made at the meeting by the moderator, Raymond Penner of the Strategic Action Group. Where the audio quality was such that a word or words could not be distinguished, the missing word(s) have been replaced with 3 dots (...). While this is not frequent, it does occur due either to a speaker's enunciation or at other times to audience participation. When the tapes required changing, there was a loss of a few seconds of input and these points have been noted in the transcript. There will undoubtedly be errors in the spelling of proper names, both place names and those of speakers. While the author of this transcript apologizes for such occurrences, these should not in any way affect the intent of what was being said. The reader is also encouraged to remember that literally transcribed speech is quite often not follow conventional rules of grammar. Copies of the audio tapes of the meeting have been provided to CACG, NorskeCanada and the Ministry of Water, Land and Air Protection; in addition, each has been supplied with an identical electronic copy of this transcript.

Moderator: Thanks Michael, this is a terrific turn out tonight, it's great to see this much community interest in such an important topic. The key purpose tonight, I'd just like to reiterate, is to share information regarding existing and potential air emission of the Crofton Mill. And so that's what our focus is, I think that's probably the most ## anybody who came out tonight and in order to do that we are going to be running the meeting, there is a panel and you can see them in front of you, they're going to have approximately ten minutes each to present some information. After that we are going to open up the floor for questions and answers and comments. And we have a floor microphone, we're going to ask people to keep their questions and comments to approximately two minutes maximum, that provides a lot of opportunities for people to get to the microphone. We have some time constraints because of the ferry over to the island, so we're going to be finishing the meeting absolutely no later ten to ten, 9:50, if it finishes sooner, I tend to doubt it with this many people. I'm sure there's a great deal of interest.

Michael Ableman: Actually correction on that, there is the possibility of an extra ferry being added for the Saltspring people, the intention is that the meeting will actually continue for those who live on this side, for as long as we need to go. So that was my understanding anyway.

Moderator: Okay so for those people that have to go to Saltspring we're looking at around 9:50 unless there's an extra ferry. Do you have an in with the fast ferries or something.

[Unidentified speaker]: They're not using them, we'd be surprised.

Moderator: You could link them together and put in a land connection. Anyway we're going to start. We do have some pretty tight times we're going to try to stay to. I'm going to ask the panel to start their presentations. Just so everyone in the panel is aware, when it reaches nine minutes I'm just going to let you know that there's a minute left and if your close to being finished that's fine, but we don't want the ten or eleven minutes to move into fifteen minutes, twenty minutes so just to keep that in mind. I know that that's going to be a challenge for some people but if there's unanswered questions that you of have, then we'll do those during the question and answer period. So I'd like to start with Michael Ableman who will be the first up. Michael is Crofton Airshed Citizens Group representative, he is a farmer and an educator and founder and executive director of the center for Urban Agriculture and Fairview Gardens based on one of the oldest organic farms in California, where he farmed from 1981 to 2001.

[Unidentified speaker]: I can't hear.

Moderator: You can't hear? I don't know, beg your pardon? Well we have some sound technicians I think they're probably downstairs right now, I don't what else I can do about it, I'm going to carry on, and hopefully it will come back in for me. He's the author and photographer of "From The Good Earth", published in 1993, and "On Good Land", published in 1998. And the subject of the PBS national broadcast, "Beyond Organic" narrated by Meryl Streep. Michael is currently farming a small piece of land in British Columbia and is at work on a new book profiling innovative farming across North America. So Michael.

Michael Ableman: I come to you this evening not as an expert on air emissions or toxics or public health. I come as a representative of the citizens group that organized tonight's event, as a resident of this region, as a father, and as someone who is deeply concerned about the health of the air, the water, and the soil that each of us depends on. The pulp mill that sits just a few minutes down the road from here has been in existence for over fifty years and for better or for worse has become a part of the local landscape. It employs people in the region, and it is a source of significant tax revenue to the regional district. NorskeCanada, which owns the mill, is part of a multinational corporation with vast resources and business interests that stretch around the globe. With this in mind it has been a daunting proposition for citizens to feel like their concerns in relation to the mill have been heard and acted upon. We are here tonight because the time has come for that to change. A couple of months ago a few of us attended an open house hosted by Norske to introduce us to a permit application they had made to the Ministry of Water, Land, and Air Protection. It was a well-orchestrated event with cookies and quiches and color displays describing the positive social, environmental and community record of the mill, and all of the benefits that burning tires, railroad ties, and coal will bring us. When we began asking questions, however, the color panels and fairytale story began to unravel. We discovered that while this is being sold to us as an improvement in air emissions (as bizarre as that may sound), the fuel conversion proposal is all about money. With natural gas prices going up and coal and tires available cheap, changing fuels would allow the company to save as much as three million dollars per year. After the meeting several of us began the rather awkward process of researching something we knew nothing about. And while our initial focus was on the hazards of burning tires, railroad ties and coal, we soon discovered that current emissions from the mill present serious health concerns and that independent monitoring, and public education on those hazards is virtually non-existent. There is plenty of anecdotal evidence from residents of the region; of kids on the playing fields at local schools experiencing acute respiratory distress, of high cancer and asthma rates, of the mill timing more toxic releases at nighttime and on weekends, but without scientific data, we are advised, we have no basis for concern. We were patted on the heads and essentially told "trust us, we are the experts". It would be far easier to offer that trust, to pretend that all is well, to imagine that someone somewhere is looking after our interests, protecting us from harm, guarding us from those who would both knowingly and unknowingly put the wellbeing of their shareholders above the wellbeing of the broader society. But we are here tonight because we face a very real threat and because there is no such protector. Each and every day approximately 24 million cubic meters of toxic material comes from those stacks, a ton of which is made up of fine

particulate matter. That huge plume contains some of the most dangerous substances known to life; dioxins and furans, chlorine, formaldehyde, PCBs. Depending on the direction and velocity of the wind it can sit in the immediate region, drift into Maple Bay, blow clear down to Saanich, over to Duncan, across most of Salt Spring Island, and as far north as Nanaimo. If the fine particulate matter, which is responsible for the most serious health impacts, gets caught in an upper atmosphere draft it can get carried even further possibly into Victoria or Vancouver. It knows no borders. Seeing that cloud moving towards your home and your family as many of us do, smelling that acrid smell, experiencing the subsequent headaches, and not really knowing is a terrible thing. There is nothing worst than wondering what you will find out in five or ten or twenty years. Those fears and concerns, I believe, should be as valid a basis for precautionary action as is all of the scientific data that we can muster up. Nonetheless, a group of concerned citizens launched a monumental effort to put together as much information as possible. We consulted with experts in the fields of medicine, air emissions, industrial engineering, meteorology, and toxicology. We analyzed the company's data on current and past emissions, we studied reports and analysis from other Norske mills in the region, we reviewed what is happening in other countries, and what the possibilities are here. Here are a few of our discoveries: That while Norske presents itself to its shareholders and to the world as an environmental and social leader, it was recently listed in a national report as being one of the country's top ten polluters. That there is no baseline study in place on the mill's current emissions and their health effects and therefore no way to determine whether a new fuel trial will improve air quality or make it worse. That the Crofton Mill already acts like a toxic waste incinerator burning effluent treatment sludge and contaminated and salt laden wood waste from the construction and logging industries. That equipment at the Crofton mill is antiquated, lacking in proper pollution controls, subject to extreme fluctuations, breakdowns, and ongoing problems and that it cannot be depended on to maintain the kind of consistent temperatures required to safely burn tires, railroad ties, and coal. That while higher temperatures can lower emissions of dioxins and furans, heavy metals, mercury, and higher levels of sulfur dioxide and carbon dioxide will be emitted as a result of adding these new fuels. That it is unethical to suggest that we should have to choose between toxins trading dioxins for say mercury, cancer for birth defects. That data used by the company to claim success in trials for these fuels in other mills has been called inconclusive and misleading by several independent experts who tell us that normal scientific protocol is absent, averages used, and key data missing. That telephone poles, and railroad ties are possibly already being burned even while a permit to burn them is under review. Pause We believe that the relationship between Norske and this community should be guided and governed by the precautionary principle, language that is now central in the Canadian Environmental Protection Act, language that is the basis for the International Treaty on Persistent Organic Pollutants. And I quote "When any activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." The key element of this principle is that it incites us to take anticipatory action in the absence of scientific certainty. In this context Norske who is the proponent of a polluting activity, rather than the public, should bear the burden of proof. On that precautionary basis we demand the following: That the permit application for a trial to burn tires, railroad ties and coal be denied outright by the

Ministry of Water, Land, and Air Protection. That Norske be required to install the best available technology for cleaning up existing toxic air and water emissions, and that its solid waste disposal practices be reviewed. That it be required to operate under the same health and environmental regulations that exist in Norway, the company's country of origin. That an independent baseline study on air and water quality in all of the communities surrounding the mill be produced. That an independent health study be carried out in all of the communities surrounding the mill. That permanent ambient air testing stations be expanded and upgraded in all of the communities in the airshed of the mill, and that the data from those stations be published weekly in each of the papers in the region. That in the interim a system be established to inform the public immediately when emissions are too high for health and safety so that residents can protect themselves. That an independently managed toll free hotline be established for citizens in the region to report problems emanating from the mill. That those complaints, and how they were responded to, be published each week throughout the year by the papers in the region. Pause The mission statement of the Ministry of Water, Land and Air Protection that oversees this mill states, and I quote, "that it is committed to protecting and enhancing the quality of British Columbia's water, land, and air in a way that contributes to healthy communities". And so I ask you Mr. Bintner as a representative of that agency; go to your superiors, tell them what you have heard tonight and remind them of the stated mission of your agency. Each of us here tonight, and thousands of others who live in this region desperately need you to fulfill that mission. We demand that you protect what belongs to all of us, the commons, our air and our water and our land. No one company should have the right to hijack those commons and to take away our most basic and fundamental birthright; access to clean air and clean water. I have two sons, the youngest of which is here with us tonight. We try to make healthy choices for them by growing our own food, providing good drinking water, guiding and guarding them in any way that we can. But there is no choice when it comes to the air that we breathe. At the moment that choice is being made for us, by others, somewhere else, whose priorities are often not life but profit. There will be no compromise when it comes to the health of our community, we will expand and accelerate and continue our campaign in every way for as long as it takes until we reclaim our air and our water. Thank you very much.

Moderator: Can you hear? We have next on the panel Delores Broten, Senior Policy Advisor of Reach for Unbleached, Delores works on toxic issues nationally. She's founder and past Executive Director of Reach for Unbleached and has served on numerous boards including the Georgia Strait Alliance, the B.C. Environmental Network Educational Foundation, and is currently on the board of the Labor and Enviro-Alliance Society.

[Unidentified speaker]: We can't hear you.

Moderator: He'll work on that and I'll see if I can use what God gave me. I'll just repeat the last part, that Delores is founder and past Executive Director of Reach for Unbleached

and has served on numerous boards including Georgia Strait Alliance, the B.C. Environmental Network Educational Foundation, and is currently on the Board of the Labor and Enviro-Alliance society. She's also volunteer editor of the highly respected Watershed Sentinel, a bimonthly environmental news magazine with a circulation of eight thousand. Delores, apparently the middle microphone is working, you'd be welcome to go to that, and again I'll try to let you know when ...

[Unidentified speaker]: Yell it out Delores.

Delores Broten: I don't know if I can yell. Can you hear me at the back.

[Unidentified speaker]: We're back on.

Moderator: Here's a hand for the sound guy.

Delores Broten: Hi, you can hear me now at the back, right? A little bit shrilled , but we can't help that. So here we are at Crofton, Crofton pulp mill, again. Crofton pulp mill first came to my attention back in about 1988-89 when the Blue Heron colony near the mill, that eggs couldn't hatch, and eventually it was discovered, it was out of like a couple hundred birds or whatever, only one or two chicks hatched. Eventually they got the science guys together and they figured out that was because of the dioxin from the kraft bleaching, the chlorinated bleaching at the Craft Pulp Mill. Fisheries and Oceans got their act together and passed a federal law that said you will not put out dioxin in your waste water. And that issue got mostly cleaned up, square one. Then the next time I was here at Crofton there was a bunch of young people walking from the Walbran down to Victoria to protest the clear-cut logging. That was 1993. And they were at Crofton because they were talking about the fiber problems with all of these pulp mills on the coast of British Columbia. I think that even today, the fiber supply problem on the coast is the mills biggest problem, it's all of us, our biggest problem. Actually, the old growth is just about greed. So then we did a mill watch workshop at Crofton in the mid 1990's, it was co-hosted by the Halalt First Nation and the mill, I think, was the co-host of that workshop. Then a little later on I started getting e-mails because time has moved on and everyone has e-mail now. I started getting e-mails about the black ash. I remember in particular the e-mail from a young girl who lived in Crofton here and she said "You know the mill's showering the town with black ash and it gets on my dog's paws, and I know that there's dioxin in that ash on my dog's paws. What do I do?" So I sent that e-mail to the ministry of environment, I figured it was their problem. All the way through the whole of the '90's and now still there's the phone calls. "Hello, is that Reach for Unbleached? I'm calling from California," or, "I'm calling from Vancouver, and I've just seen this darling little house I'd love to buy near Crofton. Do you think the mill's ever going to clean up? So I can buy that wonderful house." And I say "I don't know." So now here we're back at Crofton , and Crofton wants to burn coal, tires and railway ties. Why? The guys who run

Crofton mill, they're not really bad people, they're actually fairly normal. People who work in pulp mills are just like everyone else, they are just doing a job, but all of the Norske mills have been slowly sneaking in experiments with, they call them alternative fuels. We call them very peculiar incineration practices, the Powell River mill started burning tires, the Powell River Mill has a brand new one hundred and twenty million or two hundred million dollar power boiler, so Powell River Mill is probably the cleanest mill on the coast. It certainly has the tightest air pollution permit on the coast. So they got away with that one, although I don't think everyone in Powell River was thrilled. The Alberni mill's burning tires, the Alberni mill has another really good boiler and tight controls, and the tires they started out burning were a pile of industrial tires that could of been a tire fire, like they had back in Quebec. So, okay Alberni starts to burn tires. Then Elk Falls starts to burn coal. Coal? Well really? It's 2000-2001 and we're burning coal? So "Oh, it's just an experiment." So Elk Falls is doing an experiment burning coal and the results come back and, hey, burning coal is the best thing you could do. Isn't that amazing. Of course, there's a small problem with the report, like we've got an average of just two figures, one's up there, one's down there, so you average them and you say, well that's the results forever. Okay. So now Crofton wants to go full speed ahead with all of those alternative fuels. Why? The bigger issue is that Vancouver Island is facing an energy shortfall. Pulp mills use one quarter of the electricity on Vancouver Island and they use it at about one third the price that you and I pay for that electricity. On top of that it's about a quarter of what pulp mills, right next door, for their electricity. They've got a really good bargain on electricity. They also have a guaranteed supply of natural gas, that natural gas they get at a guaranteed low price. So, you and I are subsidizing the pulp mills for their energy requirements. Now B.C. Hydro's put out a call pre-tender they call it, after, there's a whole bunch of agitation around natural gas plants, you've heard about some of that in Nainamo, Port Alberni, etcetera. But B.C. Hydro has now put out a call for independent power producers to sell electricity into the Vancouver Island energy grid. And guess who's got a bid in? It's the Norske pulp mills. Now what they say their going to do is generate electricity with natural gas. That's the natural gas that they have a guaranteed supply of, that you and I are subsidizing the price of. Okay but in the mean time, to get the energy to run the mill, they need to burn coal, tires and railway ties. So when they do that, oh, there's one more thing, but behind the coal that they want burn right now for the tests, there's mountains of slag coal up at Quinsom Coal mine. It's an environmental problem. The mine has to do something with it, the mine can't sell that slag coal, it's not good enough. But the mine could give it to the pulp mills. So there's a solution to a whole bunch of energy problems, the only problem is that again, you and I are going to be subsidizing the pulp mill's energy, only this time we're going to be subsidizing it with our health and the health of our lakes and our fish. So, are there alternatives? Do the mills have any choice? Yeah, I think they do, and I've been studying this for a very long time and I think that these mills could really invest in the future of Vancouver Island. I think we could have power smart pulp mills, I know that there are all kinds of things these mills could be doing to save energy. The reason I know is because the engineers have a saying that says "waste is inefficiency." Well these pulp mills have a lot of waste so they've got to be really inefficient. I know that in Washington State the pulp mills are putting in pumps that have a magnetic start so they don't have a big peak

load demand and that saves energy on peak load, which is Vancouver Island's problem. It's not steady energy, it's peak load. Okay

Moderator: You have a minute.

Delores Broten: Okay, a minute, that's great. I know that in California, for about ten thousand bucks you can get these weird little wind mills that you can put up on top of about any surface, shopping centers, anywhere around the mill. Those little wind mills all feed into your own electrical system and you're creating more of your own energy. Ten thousand bucks, big deal right? So, I know that there's an enormous amounts of methanol going off from the treatment ponds and into the water, and that methanol is alcohol, that's a fuel. It could be used to make energy. So I think that Norske should invest in the future, in our future. I think they should get smart, I think they should get power smart, I think they should maybe invest in a few scholarships for university students for engineers to help them. Fund some future technology. I think that the savings that you make should go directly into research and development for renewable energy. Elk Falls is sitting right beside one of the five most terrific tidal forces in the world, and we're going to burn coal? Now what do you do, ask questions? Make Bernard there, from the Ministry do his job. Ask more questions. Demand that the government and the corporations get with the program, move into the 21st Century and get power smart.

Moderator: Thank you Delores. I'm sorry I was a little negligent getting this information out further, earlier it was giving to me, but there is five cars that apparently will be towed if they're not moved. I'll just give quickly a Firefly 490 GEA, a Tahoe 356 BCB, an Acura 214 BDA, a Volvo VJK 456, and a Honda FLL 787. Next we have on the agenda, a representative from NorskeCanada, and that's Graham Kissak, who is the Environmental Manager. Graham has a slide presentation, I'm not sure whether you need to be at your computer to use it, you can get it started from there.

Graham Kissak: Can everybody here me okay at the back there? Okay great. Firstly, let me say, wow, this is incredible and it's great to see such a good turnout and whether you love us or hate us, kudos to you for having the interest in your community and environmental issues around your community for coming out. So I take my hat off to each and every one of you. I've only got ten minutes to talk tonight, which is by no mean enough time to fully go over the trial, and I've got a fairly concise presentation and I'll only get into the first quarter of that or so, now, and hopefully later on in the evening, if there are pertinent questions that come up there may be pieces of information in that presentation that I can share, or other people in our team can share with you. Before I actually start and talk to you what our trials about though, I guess a lot as Michael held himself out to be, I'm by no mean an expert either, in fact I'm really, if you will, a general manager who manages environmental issues for the mill and for the organization. But what I do have is a number of people here today who have on-the-ground expertise in

each of these issues, and hopefully they'll be able to help answer some of these questions in an appropriate manner that satisfies your interests. Before I introduce them though I do want to say one thing because it seems that a lot of people have wanted to know whether or not people are being paid or not by our organization, and I'll let you know everybody that I'm going to introduce now is being paid by our organization. They're either employees of NorskeCanada or they're independent consultants and this is what they do for a living, this is how they pay their mortgage and I don't think they're embarrassed of that. So what I'm going to do is quickly roll through the names of the people and their titles, and their field of expertise, and if I can get them to stand up, because what I think we'll be doing later on this evening is when you ask questions I'm likely going to pass those questions on to some of these people, simply because they can provide a more qualified answer to your question than I ever could. I hope that's satisfactory to everybody here. So, why don't I start out. We've got Mr. Phil Jones here who is the manager of our utilities facility and he operates the energy island and oversees the operation of the boilers. Then I've also got our environmental team here representing each of the mills. Mr. Chuck Easton is here who's the technical manager in Campbell River. Chuck's been at this for a long time now, and Delores and Chuck go way back, and I'm sure we'll get into that more. Next we've got Larry Cross who's the environmental supervisor in Port Alberni. Port Alberni has been burning the TDF fuel now since 1999, so Larry's got a lot of experience there and talk to that. Behind Larry we've got James Lethbridge who's the environmental engineer, who's been directly overseeing the coal trial in Campbell River for the last twelve months. I can't see who we've got, oh, we've got Drew Killback. Drew is the environmental manager in Powell River, and Drew recently completed a TDF trial there and he can talk specifically to it. And then we've got Peter Sagert. Peter Sagert is a gas dispersion expert, he gets into the modeling of stack gases and what happens to them after they leave the pipe, where do they go, what do the concentrations look like. Then we've got Ross Wilson who's an independent health toxicologist. He's the guy that looks at the concentration of those gases in the communities and the neighborhoods and makes some sort of assessment whether or not they are a health risk. And then finally we've got Mr. Alan Franco. Al operates an independent testing company, I think they've got over a hundred customers around the world. He's been involved in a lot of these trials around the province and else where around the world, actually doing the stack testing and providing the numbers to the regulators. I think that covers up the whole team here, so what I'm going to do is just jump into the presentation. What I want to do is give you a twenty thousand foot perspective on what this project, this trial is about and hopefully it will just frame what we're looking to do, because there's been a number of concerns raised and I think we can answer a great many of those. Anyway, this is an aerial snapshot of the utilities island and what we're specifically talking about behind all the piping here is the number four power boiler. And what the number four power boiler does is to burn wood waste from saw mills and generate steam for us for the use of pulp and paper and also helps to generate electricity. And the interesting thing to notice in this picture is this large box here, that's the electrostatic precipitator on the power boiler. It's a 1978 boiler, the precipitator was brand new in 1991 and then was just fully replaced in 2001. So actually the precipitator is only two years old. Also in 1991 we replaced the wood drying system, and essentially what we've done is installed a 13 million dollar hog fuel pressing system that squeezes

the water out of the bark from the saw mills and we're able to dry it and we have a better combustion within the boiler because of that. Recently, and I'll get into that in the next photo, we've also just finished spending another 3.2 million dollars on a fully distributed control. This is basically a computer system that fully controls the boiler. This work was just finished in the fall and improves the level of control. Literally now the controls on the boiler I guess are a little like a modern jet liner with appropriate fall back systems and everything else, but it controls the level and the quality of the combustion, the temperature within the boiler, the feed of the fuels and all of those parameters. What I'd like to do is just go back to square one. What this boiler does is it burns waste wood, the waste wood isn't generated by our mill, it's actually generated by the saw mills. And if you imagine a round log comes in to a saw mill, the first thing they have to do is take the bark off. There's nothing they can do with that bark, and what happens is the mill ends up taking that, and like I mentioned, using it to generate steam and electricity. The problem with this process, and this picture's very telling, and Delores is aware of this because she was on the task force. When these logs are towed in the water they absorb moisture and they absorb salt. Well our hog pressing system is very effective at pressing the moisture out, but we can't get the salt out, and that salt carries through the boiler and it acts as a precursor to dioxin formation. But it also represents about 80% of the actual particulate that's going up the stack. It also affects the effectiveness of the emissions controls of the precipitator on the boiler because it sticks to the plates and you cannot remove it, it becomes quite sticky at high temperature. So the bottom line is, if we can reduce the salt loading to the boiler, we can improve the performance of the emissions control equipment, we can start to reduce the fine particulate that we emit. There's more than just wood bark being fed into the boiler, and I think Michael alluded to it. We also, about 90% of what we feed into the boiler is the wood bark and there's the pile there in the photo, and I'm sorry that people in the back, this is probably difficult for you to see. The other thing that we add, about 10% of the fuel to the boiler is made up of pulp and paper fiber that are coming from the mill. It's also made up of bio-solids which are naturally occurring organisms that we use for treating the waste water. So there's more than just the wood fuel, and this mixture is mixed together, it's dried and then it's run into the boiler and it's combusted and that's how we generate the steam. Just to give you an idea, one of the challenges we've had in the past five years is as a solid wood industry in the province has come into more and more trouble, they've become very very smart. What they've started doing is the waste wood fuel they send us, decades ago it used to be mixed with essentially clean useable wood and sawdust and thing like that. Well the sawmills have realized they don't have to give that stuff away, they can actually high grade it off and sell it to the mills. So what we've been finding is the hog fuel quality has been dropping in terms of the moisture content going up, the heating value of the fuel going down and the salt concentrations going up. What we're having to do now is go to great lengths, and you can see on this pile here, of mixing the dark bark and the lighter wood which is more likely wood or different bark from a wood species together to ensure that we have a consistent burn, because the single most important thing around operating these boilers is the stability of the boiler and the temperature of the combustion within the boiler. If you have a boiler that's continually upset, and the temperature swings and you just about knock the fire out in the bottom of the boiler when you bring some wet hog fuel in, you affect the burn. The task force that Delores has been on is aware that a bad

smoldering burn in a boiler leads to dioxin emissions, it leads to increases in other volatile organic compounds as well as increases in fine particulates, so we want to optimize the combustion in the boiler. That is a lot about what this trial is. So the fuel application essentially, we've talked around this, is the notion of using Vancouver Island fuel from Quinsom Coal, railway ties that would come from both the mainland and the island, and then this tire derived fuel. It may come from Target in Chemainus, we don't know, but some of you may know that there is a manufacturing facility there that makes it, that currently supplies our Port Alberni facility. For us, one of the things that gives us a lot of comfort that there is sound technical understanding around these issues, is all of these fuels are currently permitted and are in use in the province today, so we're not undertaking anything new as it relates to trying a different fuel. [TAPE CHANGE] Two quarters of 2003 alone, the company lost in excess of 50 million dollars, they need to start to realize savings.

Moderator: Just hang on a second, one of the things I'm going to ask tonight is we've been respectful for the other people, and we be respectful for every speaker, and the questioners later. So I'm just going to ask right away, let's not get into that.

Graham Kissack: The other reason to want to do this is the opportunity to reduce some emissions, and Michael talked quite eloquently about the concern of trading off dioxin for mercury and frankly he's absolutely right. The joint panel I was on with Delores, one of the conclusions that came up from that group was that using coal or TDF will reduce dioxin emissions and that is in the province's working paper, but there is a trade off. You're likely to increase the SO₂ emissions from the boiler that can result in acid rain and other issues. We look at the experience else where and we think it's a compelling argument that these fuels should be tried. Finally the opportunity to reduce solid waste. We look at the quality of combustion in our boiler today, there is a lot of unburned wood which is going into our solid waste system. If we can improve the combustion quality and get a better burn within the boiler, we'd reduce the amount of waste we're generating everyday. So this is my final slide and I won't go beyond this right now, but basically what we've proposed is a thirty month trial period. We aren't going to burn each of these fuels for thirty months back to back, the lion's share of this thirty months is actually going to be down time with no fuels tested, but the reason that time's requires is for the setup of the trial. It's bringing in conveyers, hoppers, control systems to make all of this work. Then the trial will be run literally in a one to two week window, test results analyzed. Then we'll go back again, they'll change the setup, the feed rates and they'll try again, and that will happen sequentially for each of the fuels. None of the fuels will be tested together, they'll all be tested independently with the hog fuel. The trial will be halted if there's any material impact on our air emissions that are detected. I've got that from the top from the organization, that we're not going to go there. If there's anything found we'll suspend things. We're prepared to be open and share these test results with people if they're interested in seeing them as we go. Finally, around the notion of independence of the testing and the work that comes out, all of testing is being undertaken by an independent stack testing company and I'm sure we'll talk more about

that tonight. We're also prepared and will be putting together an independent trial assessment when the trial is finished. I've heard people ask "How do we know the independent assessors are truly independent?" Well I'm sure we can land on an organization with technical skills that both Norske and the province and perhaps a citizens group can all agree is unbiased and independent. That's all I'll share for now, like I said we've got more slides that talk specifically about each of the fuels and the experiences else where in the province. Again thank you very much for taking the time and having the interest to come out, and I hope we can have a constructive evening.

Moderator: We're going to have to next speaker, Richard Steadmen, he's currently the Executive Director for the Olympic Reaching Clean Air Agency in Washington State. Previous to this position he was the manager and principal investigator for the Washington State Department of Health Cooperative Agreement program, with a federal agency for toxic substances and disease registry, some of these titles are mouth-fulls aren't they? He has over eighteen years of experience in the field of public health and environmental management. He's experience includes work on air quality, water quality, hazardous waste management, toxicology, risk assessment, communication and epidemiology. Mr. Steadmen received his B.A. in geology and biology from the University of California at Santa Barbara. His MS is in natural science and environmental science (Toxicology) from the University of Hawaii School of Public Health in Manoa. Richard.

Richard Steadmen: It's great to be here tonight, I'm not sure if I'm encouraged or discouraged to see so many people show up, I know that in my jurisdiction in Washington when we call a public hearing, the last four public hearings that I've been the hearing's officer for we've virtually had no public show up and I think that's either because we're so successful getting the information out. What this tells me right now, and based on my limited assessment of the information provided to me, that there are a lot of questions out there that remain unanswered and I think that's why you folks are here. I'm going to talk tonight about some of the issues I see. First I want to tell you, you've heard who I am, I want to tell you who and what I'm not. I'm not a hired gun. I'm not here also to incite or create a international incident. I would like to be objective coming from the United States point of view, I see I'm the only one wearing a tie in the room too. Hopefully this perspective will have some help here and assistance to the issues that we're looking at. One of things on my limited review of what's being proposed here is that there's a lot more issues and concerns that are answers. We have an older facility that is proposing to burn additional and new types of fuels, and I would agree with the presentation, that this is nothing new. In fact in my jurisdiction we have a lot of facilities that do propose and do burn these types of wastes. However, they go through extensive and exhaustive reviews and that information is shared with the public up front. There's a few things, in my opinion, that would need to happen. First of all, as proposed this would not fly in Washington State. This type of information that I've received is basically anecdotal saying in works in one facility so it's going to work here. We need more information with respect to what's being proposed and the types of emissions. I'm

encouraged to hear that we have somebody that does air dispersion analysis here, and that's one of the first and foremost things that has to be done. I'm certain there's a limited test time that has to occur to get the emission parameters and figure out what's being emitted, but there are computer models that tend to overstate concentrations to the exposed public. But these are essential elements to use to look at where the chemical contaminants are travelling. You also have to develop a list, I think this is something that the community should be involved with and the professionals, looking at chemicals of concern. We've heard a lot of these different chemicals of concern tonight, one of them is dioxin, it's one of the most toxic substances known and has very long term health impacts. We've also heard of mercury which can have short term health impacts on children and unborn children. We also have things like sulphur dioxide or oxides of sulphur, which in addition to causing respiratory irritation along with things of nitrogen oxide and oxides of nitrogen can have profound effects of visibility, and I know this is beautiful British Columbia, so that's one element too, aside from public health aspects that we look at. Of course right now, particulate matter, especially this small or ultra-fine particulate matter is one the largest concern from a public health perspective, with respect to exposure to air pollutants. What needs to be done is this has to be quantified. What are these emissions? What's being proposed? How are you going to have an older facility burn different fuel source and actually reduce emissions? From what I've seen that doesn't seem possible, we did have a facility similar to this and it's also a wood products facility, that had, for instance, wanted to burn the TDF or the tire fuel. Well they found out with an older type of boiler that it clumped up in their combustion chamber and it was impractical for them to use it, the emissions actually went up, and that's particulate matter emissions primarily. There's a lot of technical issues that still need to be addressed and I think those questions remain unanswered, as I said, with what I've seen. Other than that, I think before you can start talking about reduction in emissions, you actually have to know what the emissions are in the first place, so that's one thing that hasn't been crystal clear to me. When you're going to start talking about reductions, in order to get those reductions you have to have a sort of baseline analysis. That's also something that can be done with air dispersion, it may have been done and I just haven't seen that information. I think also right now, with respect to health effects from these types of compounds, there probably over the short time there's not going to be significant consequences from short term health impacts with respect to some of these emissions, mercury being an exception and the respiratory irritants. Those things also can cause or at least exacerbate things like asthma and can really impact sensitive groups, and those would be the elderly and small children. Those are some issues too that need to be addressed in the short term and there's a wealth of information of course, internationally and within the U.S. and also California, where I worked doing toxic air impacts, sort of led the nation in the U.S. in doing this type of analysis. There is a wealth of information available and I would encourage the community group to work with the facility to get this information out. Other than that, I think I'll, in interest of time ...

Michael Ableman: How about the long term effects?

Richard Steadmen: Thanks. The long term effects, they have a number of issues with respect to reproductive toxins that may cause developmental effects. We also have the carcinogens or cancer causing compounds, and there's a whole litany of chemicals that could be added. When you start talking about the tire derived fuels, we have a lot of complex chemistry going on, and a lot more materials and the possibilities for generating toxic air contaminants that have long term health effects such as cancer, cancer to respiratory disease. So there are lot more questions than answers with respect to the information that's been provided to this day and trying to provide an impartial assessment, I don't see how this really could go forward without additional information.

Moderator: Thank you very much Richard. I'd next like to introduce to you Dr. Peter Carter. He's a founding past director of the Canadian Association of Physicians for the Environment. He has presented to the Standing Committees of Environment Canada, Health Canada and the Department of International Trade for CAPE re sustainable development and children's environmental health. He's a family physician for forest industry communities, he has spent ten years in Port Alberni, ten years in Prince George, a year in Tahsis, a year in Nanaimo. He is the past director of the Nechako Environmental Coalition. He has submitted on the federal provincial legislation for regulation of pulp mill effluent, re dioxins and furans in the late 1980's and on. He has sat on the Prince George Forest District Long Range Management Plan. He's a past director of the Georgia Strait Alliance, he's appeared on the Discovery Channel re toxins in the home. And he's live and in person, and he's going to give a presentation.

Dr. Peter Carter: Am I on? Good evening everybody. First of all, I guess I must say I'm not an expert in air pollution and incinerators and mills and stuff like that, except in-so-far I seem to have spent most of my life living in communities relying on them. I also want to reiterate that it's great to see so many people out, and I agree that there's probably a message there, I'm usually on the other side of the table with environment groups. I'm more used to sitting out there and asking a panel of experts from a proponent or a mill as many important health questions as I think I can ask, so this is a little bit of a different way around, I must say. There's bad news and good news in the matter of air pollution. Firstly the bad news is that we have decade by decade vastly underestimated the importance of air pollution. We always seem to be catching up and finding something new and some other surprise. And there are a couple of surprises that may be very relevant to this proposal that have just come up in the past few years. Everybody's familiar with the dioxin and furan story. Ten years ago it was estimated that a hundred thousand Americans died of air pollution. With the new information that I'm going to just cover very briefly, that's probably double, Okay so, although in the communities that I've lived in, in Port Alberni for instance, I was there when a ground breaking study was done by some post-graduate students working under Dr. David Bates, which started a very big thing on the particulates, which you'll be hearing all about. That resulted in tremendous improvement in the health and environmental polluting in Port Alberni. Also I can remember moving to Prince George and the air was just terrible, I mean it was awful. And yet due to some new studies and interest and cooperation between environment

groups and community groups and the mills, vast improvements. But still we find we're lagging behind, even with those great improvements. That's the most important thing I want to stress. The bad news is that one of the big problems is still soot, which I will try and tell you something about. Soot goes back to hundreds of years, and I'm from Northern England, and I was a boy when the big Clean Air Act legislation came in in England and we were used to all our buildings in the north being black and even the downs and the grasses being black. Some of you may be familiar with those. And huge transformation again, due to legislation. This is a very interesting proposition because the good news is that if we can reduce the dioxin and furan emissions again from the mills, that's a very very worth while and important thing to do. In actual fact, there's an agreement with the mills that they will reduce their emissions by 2006 I think. This proposal which has within it, an opportunity to reduce dioxin emission, dioxin and furan emissions, it is very important. I've got to put a real big question on the statement that "We're going to reduce some emissions." Okay, I really have to question that. And the statement that "there is a trade off." I don't like the sound of that at all. Okay. It's not appropriate with the present policy that we've been following for the past couple of decades, that's for sure, in which the managers, environment managers, health managers, look for opportunities to progressively and slowly, and this has been successful to a large degree, reduce the emissions of all pollutants. You just can't compare dioxin and furans and their effects with the effects of particulates and sulphur dioxide which was mentioned. In particular sulphur dioxide, we now know, a recent study was done two years ago, in which we find that for every increase in sulphur dioxide in an urban area we get an increase in deaths, and that's an increase in deaths separate from the increase we found with particulates. There's a lot of very important new information that has come out in the past few years. This opportunity for the mill and the community and the managers to look for what could really could be a great sustainable environment project, because yes, I think the economic benefits are very important, there's actually nothing wrong with a mill trying to be more efficient from the point of view of the economy and thereby making the economy of the local community more sustainable in my view. There's certainly nothing wrong with looking for opportunities for using new processes and new technology to reduce emissions because that's the name of the game, that's what people have been doing for quite a long time now, albeit rather slowly. The science is really important here and the science must be very current and it must be up to date, and the community must be involved with the science as well. Science can be explained to community, and community is intelligent and understands science quite readily as long as it's explained in the correct way. Now what we're looking at here, as I understand it, is an opportunity to degrade dioxins and furans previously going up in the air emissions 99.9999%, the figure that I've got is that a thousand degrees C and above, you certainly do take care of that. Eight hundred degrees C and above, is the figure that I've got, that takes care of volatile organic compounds. Because when we put these mixes into a mill and burn them at various temperatures, yes indeed, we have the potential, depending on what the temperature is for a vast array of toxic chemicals that can be produced, some of which, which we probably don't even know what there are. There are at least two hundred toxic chemicals released in our urban air on a routine basis, again we're still learning. In the proposal here, we're looking at very very few of them, which concerns me. We had a problem with our technology this evening, with the microphone. You know

what happens if the technology fails, that's very very important. This particular situation, where there's a potential to emit an increase in dioxin and furans, and to increase multiple volatile organic compounds and a whole multiple range of metals, this has got to be fail-safe. Okay because I'm not a technician, but it seems very clear to me that if the burn isn't reliable, that you can end up with a far worse situation than the one that quite rightly you're trying to achieve. So for the health of the community, that clearly can be critically important. And there's really good technology out there. One of the ways to go about communication between the community and the manager and the proponent mill is to take a look at what the best available technology is. What is the best available technology for pollution prevention, pollution control, and pollution monitoring here? And much as this is a major new project. It's a good opportunity to look at what the best available technology is, and in actual fact, one is always very surprised because it's really darn good. Okay, I promised to talk to you about soot, and this is a potential problem. This process that's being used in other places has involved an increase in the release of metals, one of them particularly zinc. The latest information on particulates is that the most important ones are very small ones, 2.5 microns, they're the ones that are mostly produced by combustion, by incineration. They're the ones that do most of the damage, this is very new information, only in the past couple years from the point of view of asthma and lung irritation and lung damage in children. But, and here's the big one, also a major direct as well as indirect cause of heart attacks and strokes. This is quite huge, conservative estimates of the physicians and medical experts to be looking into this is that in the U.S. there are probably at least sixty thousand cardiovascular major events, which usually means death, as a result of air pollution. There was a very large study and review that just was published this month, just came out this month, on cardiovascular mortality and morbidity with air pollution and it looks quite definitely that it's due to the very small particulates. The particulates are not all the same, they're very different, they could be just carbon, they could have sulphur dioxide on them which is an acid aerosol, they can have nitrogen on them as an acid radical. But a lot of them, in actual fact, are minute deposits of metals. Metals are not destroyed by incineration. They go somewhere, they'll be caught and they'll stay in the mill or they'll get out to some degree, but they got don't away, so metals absolutely have to get looked at because these things, when they're very fine particulates, these are deadly. Okay, particulates are damaging both short term and long term, Okay, they can be produced by a combustion process in which they're primary particulates, but they can also combine and produce themselves as secondary particulates after they've been produced and released by the process. So, my last word is there's a whole lot of very important science here, both from the point of view of the pollutants that you need to be looking at, and what their effects we now know are, coupled with the best available technology for control and monitoring and pollution prevention. And clearly on the proposal, which is very short, and maybe it's just meant as an introduction from the mill, that is not there.

Moderator: Thank you Dr. Carter. Finally in the panel, and then we're going to get to some interactive portion of the meeting. We have Bernard Bintner from the Ministry of Water, Land and Air Protection and he's an Environmental Protection Officer who is responsible for dealing with the mill. Bernard.

Bernard Bnitner: Good evening. I'm here to listen and learn what I can from you today. Alright. We have a team of people working within the Ministry in Nanaimo that looks at discharges to the environment and some of them are here tonight. We have Blake Medlar, Warren McCormic, and George Loops. These people have a lot of experience in ambient monitoring and pulp mills. So I've heard that there was only one person that dealt with the pulp mills, but we do have team, we work together. What we do under the Waste Management Act is accept applications for discharges to the environment. Now these applications are submitted to us. Along with those applications, technical assessments are submitted. We also hear comments from the public, which is provided by the Public Notification Regulation. There's a thirty day period, usually, in which comments are heard. What I do as a Waste Management Officer is look at all the technical arguments, look at all the public comments, analyze those. And for the protection of the environment and public health I will make recommendations to the Regional Waste Manager. The Regional Waste Manager will make a decision on the application and other applications like it and that would be reflected in the permit. It may be that it would be denied or it may be that it would be accepted with conditions, some of those conditions would limit certain aspects of such a, or any proposal. monitoring programs and reporting requirements would be part of that permit. Now as I said, I'm here to learn and to listen, I don't really have a lot to say other than that and I'll just turn it over to the moderator.

Moderator: Thanks Bernard. We're going to move now to the second portion of our meeting which I expect will be quite engaging. We have a microphone in the middle of the room, in the middle aisle and we're going to take questions from there, and again I'd just like to remind people that you either have a question or a comment you can direct the question to anyone or more of the panel. We're going to give them about two minutes to respond and if someone else from the panel feels that they have something to add to it we'll also try to limit that to about two minutes. The idea is we would like to hear from as many of you as we can and to try to keep things moving. So, if you have some long winded thing to say. Oh we have some preferred speakers, and I forgot all about that, some invited guests and thank you for reminding me Patti, we really have one person Adrienne Carr, so. Patti thank you very much, I missed protocol on that.

Adrienne Carr: Hi, thank you so much, is this mike on? No? Thank you very much and my congratulations to all of you for being here. You are what makes democracy work, every one of you. As I was coming in, just for the record my name is Adrienne Carr, I'm the leader of the Green Party of B.C. I live in the constituency of Powell River, Sunshine Coast. We have had a test on the pulp mill in Powel River about the burning of tires, regarding the burning of tire derived fuel, the tests have caused great concern in the community of Powell River. Probably one of the things that impacted me most in the last election, when I was running there, was hearing from people in my community who said, as people here have said, "you know, there are kids in one of our elementary schools who can't go out and play at recess and lunch, because the emissions cause them to have respiratory distress. Their eyes are teared, they choke, they cannot play outside."

Something is wrong in a society where that happens. When I was coming in tonight, I asked the people in the line-up behind me, "what is this issue about? how are people feeling about it?" And a fellow said, "well you know there's a concern of what this might do in terms of impact on jobs, jobs in our community," and the women beside him said, "well what about our kids, and what they're breathing?" The question I want to pose to all of you is why? why are we being forced to make a trade off between jobs and the environment? In the Green Party's mind, it is absolutely not necessary to make that trade off. We can have a healthy economy, we can have good jobs, we can have a healthy environment, we can have healthy children, healthy parents, healthy families. The point is, we have to attract investors who are not concerned about the lowest bottom line, making the most profit because regulation and taxes are the lowest, but companies that want to invest in places where they can brand themselves as ethical investors. So I need to ask the representative of NorskeCanada, would you be willing to keep your investment here in B.C. if the standards were as high as in Sweden, or the highest in the world so that people here, your employees and the people in this community can live to a standard of living where they are not fearful for their health or their future, and yes they have those jobs too. Would you be willing to invest in a place with those kinds of standards? And I have to ask another question, where is your MLA, is your MLA in this room? Your MLA needs to be in this room and listen to you because the job of a MLA is to do your service, your duty, to make sure your needs are being met and I have to ask is he and his government willing to change the standards so that we are attracting the very best companies into British Columbia and that the health of people are affected and has his government considered, given that the health budget is 40% of the budget in this province, almost ten billion dollars, where are the long term, the baseline, the long term, the continuous studies on the impact of emissions on the health of the people here. Thank you.

[Unidentified speaker]: My question is to you Graham, I'm just wondering, the emissions that are going on in Norway, currently, why can we not match that here in Crofton? The answer's pretty simple, I mean that's in their homeland their home state. I'm just wondering why can not at least meet that here?

Graham Kissack: I can't talk specifically to the regulatory standards in Norway as they relate to air emissions. What I can talk to, for instance, I know that the European Union in 2001 passed new legislation, for instance, the best achievable technology standards for fine particulate in EEU is between twenty and thirty milligrams per cubic meter. This boiler currently today operates at about fifty milligrams, that's five O, per cubic meter. So it's above that best available technology standard. This boiler, however is much better than many of the other boilers on the coast and certainly if we compare the particulate emissions from this boiler with the other boilers that are running these alternative fuels, would certainly be comparable.

Moderator: Just before you go on, there's two points. I don't know if somebody else wants to respond on the panel to that, and then after that Delores I'll give you your opportunity.

Michael Ableman: Two things. With all of the sophisticated computer technology that's running this like a jet liner and the fact that the boiler is running at that optimum temperature, why is it that at three-thirty this morning I had to get up out of bed to close our windows on Saltspring Island? Who else, did anybody else experience that this morning? This has been happening, we keep a log. This happens now each and every week, okay. And I don't understand the relationship between the high technology and the sophisticated burns, and the fact that we're dealing with a situation where we don't want to send our two year old outside on those days.

Moderator: Just before you have any questions, Delores had asked me if she could just make one point that she'd like to based on the presentation.

Delores: Yes, this in reference to the Dioxin Committee that Graham talked about, the fact that I was on that committee. I just want to make it really clear because my reputation is just about all I have, that that committee said alternative fuels could be tested but not used if there were any net increases in other air pollutants or emissions. We did not agree to put down the dioxin and put up the particulate or whatever. Just for my own honour.

Moderator: Thanks. One other point, and I neglected to do this with the first speaker, I'm sorry, but we'd really appreciate it if you would just state your name and where you're from, just before you make your comments. Thanks.

Daila Flong: My name is Daila Flong, I'm from Duncan. And I want to point out, I guess, unseen side affect of your test if you go ahead with it. You'd be inviting the commandos to get even with for doing something they don't like. Now, of course if you do something like dumping some kind of toxin into the water supply Cowichan River ... Duncan, into the Crofton and the mills water supply, if they were to do it in some sort of sub-lethal level, you'd have to deal with the consequences of it, and of course the victims would only be statistics not real people, the ... you know. No name, no rights, no recourse. In order to get those people to not do this because they feel they're acting in the public interest, have a referendum and let the people of the Cowichan Valley how much they approve of the plant and there will be no need to involve any kind of government agency or anything else, if the people approve go for it. Thank you.

Moderator: Please.

Jackie Bate: My name is Jackie Bate, I live in Chemainus. I have a question that is probably directed to both the mills and the government. There has been a lot said tonight in regard to particulars. I would like to know where I or any other number of this audience could pick up a reference list, preferably a peer reviewed journals of the analysis and studies that has been referred to in generalities this evening. Such a list should include data, including the range of the mean, the period done, and what kind of deviation statistics were done in correlation with arriving at the mean. I would also like to know if we have a botanist involved. We have certainly many many concerns regarding our species, but I am wondering about such things as the canopy lichens which happen to be very prevalent outside of Port Alberni, and are a vital part of a well-air system as well as the nutrient growth of the soil. I would like to see the studies in some sort of a form, that provides the data before I made up mind that burning additional materials was in fact a sound idea. Thank you.

Moderator: Thank you. I think you were looking for response either from Graham and/or Bernard. Bernard.

Bernard: We can supply you with some studies in that regard.

Jackie Bates; So I can phone you in Nanaimo, and get the actually data studies that were done including which programs were used.

Bernard: I think we can work together to define exactly what you'd want, and I'll see what I can get for you.

Jackie Bates: Well I want a field study, like most, I'm sorry, I'm a physical anthropologist and you do not do field studies that are not peer reviewed and peer reported. I would like to see you put some of the field studies that impact lichens.

Moderator: So, Graham, I don't know if you have anything to add to that.

Jackie Bates: I would be more than willing. I will phone you tomorrow at your office and see if we can arrange to see what you have. Thank you. And what about the pulp mill, do you have have ... report available that I could phone you and arrange to pick them up?

Graham Kissack: I mean the only reports that we can provide you with are the reports that we've provided the public thus far that have the detailed data from the emissions testing.

Jackie Bates: Like PowerPoint presentations?

Graham Kissack: Well actually, they're white pieces of paper that we can give you.

Jackie Bates: And is the data actually available on them, including the statistical programs that you use, cause undoubtedly you've plugged this into one of twenty or thirty different programs.

Graham Kissack: I think all of the data supplied as well as the averages. I can't recall off the top of my head.

Jackie Bates: Okay I will call you tomorrow and see if I can arrange to pick that up, thank you very much.

Michael Ableman: I'll just add that there is no environmental impact report that we know of, nor is there a baseline study. We've tried to get it, so I hope if you do get it, will you ...

Jackie Bates: I will be the first to give it to you, thank you.

Moderator: Thank you, now you can sit down, we'll just ...

Graham Kissack: I don't know Peter Sagert wants to help answer that question in terms of no environmental impact study being done, because that may be somewhat misleading. I don't know if want to come up here Peter and try and answer that, of go to the mike.

Jackie Bates: While we're at it, the other thing he was going to answer was, do we have a botanist involved in any of this?

Moderator: I don't see anybody looking up, they're all looking down at their papers, so...Peter do you want to answer that? Come up to this microphone up here, I think it'll stretch across the table.

Peter Sagert: Okay Actually what I heard was several questions. First of all was where can we find information about statistics and so forth. The first place to go is the U.S.

Environmental Protection web site, www.epa.com, and it will give you the criteria with respect to how emissions are evaluated.

Jackie Bates: Thank you. ... this evening, I was looking for ...

Moderator: You have to go to the mike, nobody can hear.

Jackie Bates: Sorry, some people came to Crofton, my throat, my voice is gone. I looked at that this evening, I'm well aware of those kinds of sites, but what I'm looking for, is what is normally done science which is a comparative thing, so for example could we compare that, to see the material, for example, for Port Alberni or Campbell River, or even Crofton so we could do a cross comparison and they would have to contain the data and how the studies were done so we're not comparing apples and oranges, we're comparing apples and apples.

Peter Sagert: The information for that is in one of the documents that Norske has already published with respect to the studies that have been done at the various mills. In addition you also expressed a concern about the biological effects.

Jackie Bates: Yes I did.

Peter Sagert: And again, you can find the information that would help you in two areas, the first area is again that same web site. Look up the criteria documents for each air contaminant you're concerned about. The second part is that there are Environment Canada reports that go through the Canadian version, if you want to call it, for the same information, and those would be readily available.

Jackie Bates: Yes, I'm familiar with some of those, I'm looking about the lichens in Port Alberni.

Peter Sagert: I don't specifically recall a lichen [TAPE CHANGE] ... There's extensive information on a list like that to answer your question.

Jackie Bates: I'm concerned about the generalities of the studies.

Moderator: So, Jackie, I think your getting into bantering a little bit. You are going to get what ever studies you can get and they may not be enough for you. Just before we go to

the next speaker , Patti has announced that people are looking puzzled about a box with some money here.

Patti Bauer: hello my name is Patti Bauer and I'm working with the Crofton Airshed citizens group and there seems to be lots of puzzlement over a bucket that's been passed around and I would just like to say that the bucket is for the Crofton Airshed citizens group. We as a group have paid for publications in the newspaper, fifteen flyers, other issues that I am not able to say at the moment. But that bucket is actually to reimburse the personal pocket money that has been spent to put this program together this evening and if there is any future needs for it.

Moderator: There's a couple more buckets that are going to appear, and they might come back to you. Please...

Dietrich Luth: Yes, I'm Dietrich Luth, I'm from Salt Spring Island. Funny how things come around and go around and what the public perception of these things is, I mean twenty years ago there was a clarification issue and a mill, by the way, which I worked at about forty years ago, five years after it was built, in the summers, actually enabled me to go to university, so I'm always thankful for that. The clarification issue was solved at the time and now it's a combustion issue. I haven't heard anybody here, among our sages at the front talk about magneto-hydro dynamics which is a judicious application of flotation equipment and electricity to the combustion process. Now granted, at the time magneto-hydro dynamics was starting, computerization wasn't as advanced as it is now, industrial process has. I'm not saying that this is behind MHD for short but I think the people in Campbell River. They're doing a coal process. You're probably familiar with MHD technology because it's used and Mr. Stedman would probably know about it as well because it was pioneered as far back as 1975 at Montana College of Mineral Science and Technologies, and the Dean there was actually a guy I worked under at another college. So it's unfortunate, let's face it, the knowledge isn't out there but industry is adapting and it's entitled to have a fair chance to deal with the issues. Combustion issue is a major challenge, and for people to get highly upset over the burning of coal when there are so many different types of coal all the way from anthracite to lignite which burn differently, they all lump it into one thing, I mean that's just adding confusion. You can burn anthracite pretty clearly using magneto-hydro dynamics and pilot plants. The States do it, maybe Mr. Stedman has some comments on that. The long and the short of all this is, I hate to see emotion getting involved in all this, it's unfair, I mean let's face it, if all our plants shut down we'll be taken over by our dear friends from the south because we'll all be bankrupt and starving to death. Anyone want that? I don't think so. I mean be fair to your employer and let him work out the bugs and get it happening and I wouldn't fail anybody for experimentation because this isn't a religious cult that mustn't vary. It's actually an ongoing experiment, all of life is. Thank you.

Sue Hiscocks: I'm Sue Hiscocks, I was involved with the concerned citizens of Crofton in 1988 when we first protested over here and I'm pleased to see that the blue herons have recovered, however there are other things that seemingly haven't recovered. One is the shell fishing, there has been more aberrations in fish, and the incidences of prostate cancer have shot up in the area. I'm not sure you can technically scientifically correlate all these things over a time period but they are all major concerns. My main focus is to just ask Delores if there is some way to speed up the alternative energy sources in these pulp mill's operations because right now humans are pumping six million tons of carbon dioxide into the atmosphere every second. The carbon dioxide traps the sun's heat like a green house and causes the earth to warm up and I've spoken to someone who's from here and he says the incidence of drought has increased in this area, we know it's increasing all over. Have you any comment on this Delores?

Delores Broten: The only way we are going to get technical change, technological change or social change is by working for it, and that means exercising our democratic rights. I do believe that the Green Party policy would help move us in that direction but we could also urge all the other political parties to start doing some economic and technological development. You could start, also, by making the pulp mill, doing away with that industrial price of hydro, so that all industry has to pay the same prices as you and me for electricity and they don't let them burn coal. Then they would be forced to become efficient just like pure economics.

Susan Hiscocks: And I suppose if the politicians don't want to represent us in these areas, we could always withhold our taxes.

Moderator: That's a whole other meeting. Please...

Patti Gardens: Good evening everyone, my name is Patti Gardens and I come here from Powell River. I would like to thank the organizers for inviting me and the First Nations for welcoming me. Many of the teams that are here tonight are familiar faces in Powell River. Two minutes would not let me address the half truths and the twists that are being dumped on you people here tonight, so I'm going to stick with one comment. The Ministry of Water, Land and Air Protection, how dare you come here tonight without baseline understanding of what these people are currently breathing, telling them that adding more to this antiquated system with a new muffler on it is going to improve their situation. Thank you, I want you to know that in Powell River we have, according to an ex-manager there, one of the largest waste incinerators on the planet. It's exceeding its permit on a regular basis because they don't want to run it properly and as someone pointed out with the technology, all systems go up and down. What they're going to tell you is they've got a nifty system to average this. Today they'll give you a lot, tomorrow they won't give you as much, to even it out you're all going to die. Keep the fight up.

Moderator: Please

Bob Stuart: Hi, I'm Bob Stuart from Salt Spring Island. I'd like to thank everyone for the presentations. Hearing earlier that there is a new squeezer to take the water out of the bark, but there's nothing to be done about the salt and the salt is one of the precursors to the dioxins. Now it occurs to me that it might be possible to use a fresh water rinse a couple times and run the park through the squeezer and get quite a bit of the salt out. That may or may not be possible. There's also a type, potentially reassuring about the independence of the people monitoring the air quality. We heard that it was likely that an independent agency could be found who was to the satisfaction of the company and to the province and perhaps to the citizens. I think the credibility of the province is going into negative numbers and I think the only disinterested party here potentially would be the citizens, so I think it should be the citizens first off who decide on the independence of the studies. The other thing that initially made me very skeptical about this test, we've heard tonight that it takes about two weeks to change over from one fuel to another, but there's six months available to do the testing in and only one test in that whole time, so it's seeming to be a lot more like a permit for new fuel for two and a half years than a real test. Thank you.

Moderator: Please

Justine Miles: Hi, I'm Justine Miles from Duncan. I have a lot of questions, but I think one of the main questions would be if Norske has a permit for the ash disposal of this basically heavy metal hazardous waste that is going to be coming out of the pipes. Have they applied for a permit? That's to Graham.

Graham Kissack: I think that's part and parcel with the application for the trial is the recognition and the contemplation that the solid waste quality coming out of the boiler may potentially change in terms of constituents from the tires and coal and rail ties and also the volumes may change. I don't know if Bernard wants to answer that.

Justine Miles: Where is it going to be stock piled?

Bernard Bintner: NorskeCanada has a new landfill. There's some state of the art controls on that landfill, however before we can approve the discharge of the to the landfill we have to take a look at that.

Justine Miles: So at this time you have no place for the ash?

Michael Ableman: We just visited, Graham was kind enough to give us a tour of the mill a couple weeks ago and at least what I saw was essentially an open shed with a big pile of ash. I don't know if it's true, but I've heard, and this is anecdotal so maybe Graham you can answer this, that that material is currently transferred in a current truck, is that true or not? People are shaking their heads yes, if you can tell us.

Graham Kissack: Well I think your original question was "will we have somewhere to put the ash?" I think the answer is, if the trial is approved I think the approval process will include approval to dispose of the ash in our solid waste facilities that's permitted by the province also.

Justine Miles: Is it currently zoned for hazardous waste?

Graham Kissack: No it's not zoned for hazardous waste, because the waste would generate as a consequence of the trial wouldn't be hazardous waste. I don't know if one of the folks from Campbell River, Powell River, or Port Alberni want to talk about the changes in ash qualities as consequence to the alternate fuels trial? Do you want to talk about that? Larry can you add anything to that?

Justine Miles: So had it really been...

Graham Kissack:Kissack There's been a lot of characterization.

Larry Cross: Larry Cross from Port Alberni mill. When we get our tire derived fuel trials, we characterized the ash and compared it against the Special Waste Regulations which is what hazardous waste in B.C. is called special waste, and that determined that it was not in fact special waste. It was an increase in the amount of zinc in the ash, but well below the levels that would make it hazardous in such a waste, so our ash continues to go to our landfill which is permitted for ash.

Justine Miles: Thanks, I just think that my question draws attention to the issues that are currently going on at NorskeCanada, so although the ash currently doesn't have any heavy metals, supposedly there's no rubber tires. There is a need for anyone who's around this ash disposal area, to maybe be sinking some shallow wells and finding out just what is going into our ground water. So my point is just that we need to be very concerned with the ash disposal and it basically is not finished when it goes over the air of the valley, and just in closing, I don't think that there should be any trial runs taking place over the heads and homes of an unsuspecting public. You're basically using this valley as a gigantic guinea pig.

Moderator: Delores

Delores Broten: Yeah I just wanted to add from the point of view of the issue of dioxin that on this dioxin multi-stakeholder or whatever it was committee, that I sit on for the federal government, one of the issues that came up was hauling ash in open trucks. I believe that was at Alberni, Ted Anderson, I think, raised it. Ted was a worker who was on the committee, and Alberni corrected that problem by wetting down the ash and/or tarping it. At least I remember you saying you were doing that. So I'm totally astonished if Crofton is doing the same thing in open trucks.

Graham Kissack: Well I guess the answer is, yes we're doing it in open trucks but it's wetted down. The fact is that a large spray within the bunker before it's hauled out.

Moderator: Please

Marilyn Marshall: I'm with the Crofton Airshed group from Salt Spring Island and I know you've all heard of baseline study and environmental impact statement that doesn't exist. I really believe firmly in the axiom that knowledge is power and I'd like to tell you what these things are. These are very specific studies for which specific information is there to state specific things. Base line study is a study or series of studies designed to assess the natural ecological make up and functioning of an eco-system. Baseline studies involve the detailed analysis of the area such as species, genetic or habitat diversity, population levels, health of indicator species based on levels of natural chemicals or human derived chemicals, levels of oxygen or other dissolved nutrients and so forth. The goal of baseline study is to provide a catalogue of data on a natural, healthy eco-system that will allow us to monitor changes in an eco-system in relation to human activities. An environmental impact statement, is also a study, should do a number of things, it should provide one a summary of the state of scientific knowledge about a habitat, eco-system, or community. A risk analysis developed in the light of the best scientific knowledge available concerning the impacts of the proposed or existing development or action, and analysis of the gaps in scientific knowledge and their indications for making decisions that believe to minimum negative impacts, and analysis of the sustainability of the proposed action of development with an emphasis on the long term health on eco-systems and it's ability to support us.

Moderator: Do you have quite a bit to read there?

Marilyn Marshall: No, I'm almost done. Environmental impact statements should address the precautionary principal embraced by most countries at the Earth's Summit, the United

Nations Conference for Sustainable Development in Rio de Janeiro 1992. Paraphrasing, we should not use nature as an experimental guinea pig, if the results of doing something are not reasonably predictable in terms of maintaining ecological relationships in long term, sustainable ways, then we should not be doing that something at all. Mr. Birtner you know that 95% of the people in this room do not want you to give this permit to Norske and if each of represent a hundred other people, which is the way it's calculated, an awful lot of people don't want you to do that. I hope you are listening. Thank you.

Moderator: A gentlemen just brought in a pair of ladies glasses, I believe, they could be mens. But they we're found out on the sidewalk, so they're up here. we either have them claimed or they can be a door prize later. Let's put them up at the front. Please

Chris Dicks: Hi my name is Chris Dicks and I'm from Salt Spring Island, this sounds kind of neat. It's nice to see Michael Ablemen up there. A year ago Michael Ablemen told me a lot about the agriculture business and how we're using chemicals and pesticides and basically ruining the soil with technology for short term gain. What I'm seeing here in my heart is the very same thing happening in the paper industry, I'm seeing that we're using up the air and the water and everything so we can make paper profitably for a little while. What I'd like you to do, sir, is consider doubling the price of paper, maybe tripling the price of paper. First of all we'd use less of it, secondly we'd get what we were paying for. We would be paying the right price for paper, rather than an artificial price which can only be maintained at a great human cost. Thank you.

Moderator: Thanks

Patti Bauer: Good evening, I'm Patti Bauer and I live in the Crofton airshed and I'm also part of the Crofton Air Shed Citizens Group and I have a couple of questions and a couple of clarifications to make this evening. The first one is that the company in the public eye and in the press and also when presenting this particular proposal, touted the success of the trials in the other areas, Port Alberni, Powell River and Elk Falls. I would like to say that the technology that is available at Crofton is completely incomparable. I would like to ask Mr. Stedman if he could talk to us about the technology at Crofton, the dry electrostatic precipitator that is there, and its ability to capture the fine particulates, the PM 2.5 that are actually not even monitored for.

Mr. Stedman: First of all I too looked at some of the studies and specifically Powell River, and the boiler there has a fluidized bed which increases the combustion efficiency of whatever you're trying to burn, and in this case they were using a TDF and seemed to have great success there but then they went on to compare that that would also be expected using that fuel in the existing 1972-1978 era boiler, with, and I didn't know they had a relatively new electrostatic precipitator which is state of the art. Depending on the type of contaminant you're trying to reduce, a wet electrostatic precipitator can be more

efficient in reducing some of the particulates. There are other types of devices that can be used, but in the air quality management field, what we like to do before we create a pollutant is make sure it doesn't happen. That's your first and foremost way of reducing any impacts of pollutants, so you don't have to go out and find the expensive way, and finding a solution or control devices to fix your problem. So depending on the parameters you are using, there are a high number of variables with respect to combustion. You can have terrible efficiencies that generate a lot of particulates. Even with electrostatic precipitators, it might overload the system or what have you. So there are a lot of variables and the best idea is not to generate those types of particulates in the first place, PM 2.5 and below. So, I know that's sort of skirting a question a little bit, there are control devices but it's best to make sure your combustion is done properly so you don't generate those small particles.

Patti Bauer: So may I ask, the dry electrostatic precipitator available at Crofton Mill, as I understand and that you hear from speaking to other industrial experts, is not capable of capturing the most dangerous particulate, the 2.5 in its entirety. Is that true?

Mr. Stedman: That could be true, there's a lot of dynamics that come into play so, that is not the most efficient at that, depends on what's in the stream, but typically it's not the most efficient. There are different types of filters available as well, bag houses aren't usually a great thing to use, those are pleated filters, because they can catch on fire and then you have a worse problem. That is closest state of the art technology, it just depends on what's in the exhaust stream, I would say for there salt laden fuel, it's not an appropriate device because it has a tendency to clog and stick to the electrostatic plates.

Patti Bauer: Okay, this question I guess would be for Mr. Bintner then. Is the company required to monitor for the finer particulates, the ones that are most hazardous for our health, the PM 2.5's.

Mr. Bintner: We look at overall particulate, that includes PM 2.5 and you can analyze it to find out what that constituent is. We also support the new Canada Wide Standards for PM 2.5 in the ambient environment.

Patti Bauer: You support that but at the moment are they monitoring for that, because we have yet to ... that data, representing PM 2.5s.

Mr. Bicker: We're not monitoring specifically for that, no.

Patti Bauer: Okay. Thank you.

Richard Stedman: I would like to jump in and talk a little about my monitoring, one of the issues that I haven't seen a study done a year yet, is that you don't just put a monitor out you have to have a number of studies to determine where's the best place to situate a monitor and you could derive a lot of information from that monitor. So I have looked at monitoring results from the plant and to me they're inconclusive because I don't know how that monitoring system was set up. Certainly it's not in areas where you would see health impacts, so that's one thing to consider. So if you put a monitor really close to the source, you may miss something, but if you put it out in the community, the community may actually impact that monitoring site by burning wood products and so forth. So there's a lot that has to be done, it's not just simply putting out a monitor. However, as I said before, what can be done and sounds like what may have been done or will be done, is that air quality impact analysis using computer modeling using these emissions can be done and you actually get a quantitative number that specifies what the concentration would be at your home, at any particular point, the computer doesn't care. Then you can go in later with sampling and try to validate those results. So that's typically how it's employed, first you get the computer model, you look at the dispersion, you determine what the concentration of any particular pollutant you're looking at is, and then you can also see where the highest impacts are based on using weather information, meteorological data. This is really critical, one of the studies I have looked at, just had a year's worth of information and as you know we've had some pretty wacky winters and summers lately over the course of the last few years, and that's not a real representative sample, specially with El Nino and La Nina, so you have to get a comprehensive analysis when weather patterns and be able to say that the wind is blowing a particular direction for the majority of the year. So it's complicated but it's pretty routine and it's done all time.

Moderator: Graham wants to just add something, so just hold on a minute.

Graham Kissack: Yeah ,I think I just need to add something to this notion of fine particulate emissions. Just to let people know that the mill actually has monitored fine particulate emissions in the community in Crofton, south of Crofton, Escarpment Way and in West Holm and I think about four years ago actually, that air station was moved based on dispersion modeling down to actually off Quamichan Lake in Duncan, off Maple Bay Road down there. And so with about ten years of monitoring data, looking at both PM 10 and as Patti calls it very toxic, PM 2.5, we see averages of about 11 micrograms per cubic meter. Current B.C. standard is 50 micrograms, and the, I'm not sure if Delores is going to tell us, the federal government is looking at putting in standard of, is it, 25 or 30 micrograms.

Delores Broten: 25, but with no increase in other areas.

Graham Kissack: Yeah, 25 micrograms per cubic meter, may potentially be a future standard, so when we look at those levels from the mill, they are very, very constant in terms of ambient air particulate and would be more than willing to share all ten years of data to Rich or other people who are interested in seeing them. In fact, it's interesting, when this mill was on strike, and some of you might remember, for ten months back in 1997/1998, when we look at all of this data, it's actually difficult to see when this mill has been operating when it isn't. What we do see typically are fine particulate spikes in April and it took us a few years to realize that that's actually the pollination of the trees that's causing that fine particulate, so we're relatively comfortable with the level of fine particulate in the province, and I think Rich would probably agree, 11 micrograms per cubic meter is pretty fine quality air.

Patti Bauer: So that was averages or ...

Graham Kissack: Yeah, that's the average off the top of my head. I think over the last three year period, I think there was one day where we measured above the 50 micrograms level, but again we'd be more than willing to share with you that information. It's very, very consistent in terms of being between typically about 9 and perhaps 13.

Moderator: Now, your the one who said the two minute time limit. So just before you do, there's two announcements.

[Speaker not identified] There is a letter at the front table, which you can sign, requesting a baseline study and an environmental impact statement, so please take the time to go over there, it's about fifteen seconds of your time. We'll collect those. Thank you.

Moderator: That's the group that's put on this meeting?

Michael Ableman: No that's a separate letter.

Moderator: Oh, that's a separate letter, Okay thanks. The other announcement is, the good news is the B.C. ferries are not on strike, the other is that the 10:05 is the last ferry is the Saltspring, so we'll make sure that we attend to that. Please ...

Sharon Andersen: Thank you, my name is Sharon Andersen, I'm a doctoraly prepared nurse educator and health researcher and my most important qualification today is that I live here. I'm here in two roles, I'm here first to speak for myself, and I'm here as a member of North Cowichan's Environmental Advisory Committee. In that capacity I'm here to listen. My concern for myself, is that as a person living here in the valley, which I

came to for fresh air, escaping from Vancouver. One of my concerns is that I've experienced severe headaches, burning throat, burning eyes, shortness of breath, sleep disruptions and I'm told that when I experience these things, the levels of whether it's particulate matter, effluent or whatever it is that's coming out, the pollution is at a very low level. So my concern is, what we were just speaking about, where is the placement of the monitor. I live up Escarpment Way, so I'm at the top of the hill and you don't smell anything until you get to the top. Now my guess is that what happens is several acres of trees were cut down and it's changed the flow of the air, so I'm wondering if that monitor could be re-evaluated and if we could evaluate where any monitors might go, in terms of looking at air pollution, because I don't think it's really what's actually happening. That's number one. The other is that I hear people advocating for objective research, and certainly that's very important, but qualitative research is equally important, and it's not to be put down, there's nothing wrong with it. When you come forward and say you have a headache because there's pollution in the air, that is much more important, that someone saying "Oh, it's only a 2.5 chance of this happening in a population of 100." That doesn't really matter, it matters to me that I can't breathe, and that I have a headache, and that I can't prepare my course lessons because my concentration is impaired by being brought up at three o'clock in the morning to run around and shut windows and stuff towels under doors so that the pollution doesn't come through. That's what concerns me, and hope that people will come forward with stories and that we can hear some, and I don't mean that in a light tale done fairytale, but with their examples to committee representatives, to the people speaking here, how is this impacting them. It certainly impacts me really badly, as a nurse, as a person who's comforted and held the hands of people who were dying with lung diseases, I would like to ask you to experience what some of this is like. For most of you that have never had a lung disease, take your two fingers and put them across your nares. When you go out tonight, try walking fast with those fingers up there so you can just get a crack of air, and when you feel that your heart is going to explode in your chest, and when you feel that your eyes are going to pop out of your head, welcome to what it will be like if our lungs are damaged, because that's what you are headed for. My closing comment is who will fix our lungs if we discover that the trial doesn't work. Thank you for listening.

Moderator: Thank you.

John: I'm John from Crofton. I love hearing ...

Moderator: Hang on for a second John, Delores wants to say something.

Delores Broten: In terms of the symptoms that your experiencing, I guess it was last winter Reach for Unbleached did a citizens monitoring air test here. We actually had to get a test canister from a research lab in Alberta, and send it back to Alberta because there was no laboratory in B.C. that either could or would analyze that air canister for us. And a couple of the important things that we found were that up to ten kilometers from the mill we found a total reduced sulphur concentration five times over the provincial

guide line which is five parts per billion. The human nose can smell this stuff in, I think, one part per billion. Five is the health guide line. We measured twenty-five and people at the Ministry in Nanaimo told us that their monitors would have measured it at between thirty and thirty-eight because their monitors were different then the ones we were using. Anyway, five times over minimum, that stuff can make you sick and if you go to the Reach for Unbleached web site, you will find a testimony that a doctor gave when the folks from Powell River appealed on total reduced sulphur. It's a serious problem and I think you'll find that testimony very interesting. The other things that we found were phenol present at a concentration 30% higher then California lists as a health risk for chronic exposure and a lot of other toxic chemicals at low levels. But the guy from Alberta, the analyst from Alberta, they work on pulp mills all the time in Alberta, they were astonished that we would find these chemicals which were pulp mill marker chemicals as far from the mill as we did, and he could only posit that it was because of the hills and the valleys and the coast has a whole different air dispersion model. I do think it's important that people know about these, even though it was only one test result done by amateurs, it's an indicator, and it's the only one we've got. You will find those results over there on that table with the Watershed Sentinel. The magazines are free tonight, take one home and read it.

Moderator: Thank you, if your going to say something that's really brief you have to do it from the microphone.

[Speaker not identified]: I'm the one who collected the samples, thank you for mentioning them.

Moderator: John ..

John: Correct me if I'm wrong. You have already been doing these studies or test burns in Powell River, Cambell River and Port Alberni?

Graham Kissack: That's right.

John: So why do you have to do it here?

Graham Kissack: For permanent use without trying it first?

John: We'll I didn't ..., a boiler is a boiler, I mean you heat the water up and it makes steam, right? simple, right? What's so different about those boiler's in those under three pulp mills than here, that makes this one so special that we got to do a test?

Graham Kissack: Well I guess it's, in a sense, sort of engaging a precautionary principal, that you will, that we want to make sure that there's no issues around it before we go ahead.

John: Yeah but you ...

Graham Kissack: Just bear with me, let me finish. This is the approach that we've taken at all of the facilities, it's the approach that was taken in Port Alberni, back in 1997 before they finally decided to apply and get approval to start using TDF on a current basis in 1999. It's the approach we took in Campbell river, about a year and a half ago, looking at coal, and starting a trial there. It's the approach that we took in March in Powell River, so this is completely consistent with the approach to fully understand the consequences of using the fuels before we go ahead and look to use them on a permanent basis. I think it's reasonable.

John: But you should already know what the consequences are of using that fuel, I mean it doesn't make sense. It's that boiler capable of handling whatever effluents come out of it. Will it deal with it? I mean you should know, you've been doing it in Port Alberni, you've been doing it in Campbell River and Powell River.

Graham Kissack: I think the answer is we've got a pretty good idea of what it's going to look like but we want to confirm before we do it on a permanent basis.

John: Yeah, Okay ...

Moderator: Richard wants to say something.

Richard Stedman: That's actually a really good question, I want to emphasize that in the States we call this a source compliance demonstration period, and that means that what they say they can do, they can prove that they can do. Often times you will find with a particular plant, it is site specific. I mean, there are parameters that cannot be controlled for, and the facility will have to do certain tweaks to meet the limits that have been established by a permit. They say they can do it. What this is typically doing is saying prove it. Now I think one of the issues, and this caught me off guard too, is the thirty month duration, that seems a little bit long, but it was explained that this was going to be a short burst of activity within the plant, and I can let Graham discuss that more, but I have not seen any information on how those tests were going to be set up. And you know that the burns that were going to be performed, there had to be more I think to qualify for an accurate assessment of what the results will be.

Moderator: Michael did you want to say something?

Michael Ableman: No

Moderator: Okay. Peter, down at the end please, can you pass the microphone down please.

Peter Carter: I tend to agree, that you've seen before with a proposal for a new process, I've seen predictions of a computerized model, and numbers, ... numbers certainly with a confidence limit around expectations. That's very useful because it can confirm that the engineers and the technicians really do know the process that they are doing in regards to health, is very important. One thing that nobody said would happen and I should ask in a sense is that you see, that I mentioned these temperatures for dioxin degradation of a 1000 C° and VOC degradation of 800 C°. Now in the proposal, this boiler has a grate temperature of 1100 C° and a top burns temperature of 850, Okay, so they're kind of close. Also in the proposal, it says that the mill will be permitted and will use, if it needs to, fuel oil and natural gas, so I think we need to know a lot more about that because we need to assess how accurate a test this is to predict how the mill is going to use, and the other thing I'm interested in is, what's the plan for the mill, what do they predict, based on the numbers and everything, what in actual fact they are going to be able to burn in the long term. There's nothing that indicates that at all.

Moderator: Yes

Susan Monaghan: My name is Susan Monaghan and I live on Saltspring Island. I would like to address a technical question to Doctor Carter, there is a group of persistent organic pollutants that are labeled estrogen imitators. Would you be able to comment on these as they're implicated in human health both in infants and in adults and whether the proposed fuel burning might change that situation.

Peter Carter: Endocrine disruptors are still, a very complicated health problem which is still in intensive research ... in the States. Dioxins and furans have endocrine disruptors, so they can effect the endocrine system, particularly the development in the fetus and new born and give rise to developmental problems thereby. Also the cadmium, one of the heavy metals that can be discharged in this process, is also an endocrine disrupter. So that makes the containment and prediction of where these metals are going to go and how they're going to go even more important. Just a point on the particulates, yeah, if you go to Environment Canada's web site and this a comment that is rather important because it's on the statement of standards and the statement that seems to say if they go up a little bit that they'll still be well within the regulatory guide lines. Well regulatory guide lines are only guidelines, and as such Environment Canada, on its web site, you will see that it says that they need to be revised because of changing information about health. They are currently doing that, but they are doing it really rather slowly, because this is a big country with lots of provinces as well as federal government. The PM 2.5 standard guideline that you've heard mentioned over 24 hours is 25 to 30 micrograms per cubic

millimeter. Now that's supposed to be over ten years. So again when the usual policy of management is when you have a big change, a new process, you want to maximize those opportunities. So you want to go with the best data for standards of health. There is by the way, no threshold for the health effects of particulates. By that we mean the lower you go the better it is for health, so you want to be looking at the opportunities to maximize the improvement of the emissions of all the pollutants, which means that you have to look for all of the pollutants and the state of the art technology means that you can monitor continuously and you can identify separate metals and you can identify separate VOCs on a continuous basis and you can monitor the temperature continuously. So this should be a good opportunity to maximize economic and health benefits.

Moderator: Thank you, please.

Jeanne-Marie Herman: My name's Jeanne-Marie Herman and I'm live on Saltspring and this is Benjamin Ableman. And my question is, this summer we smelled it continuously for a week and I had a headache for four days, night and day. What impact does that have on my child in the long run, if we're in compliance of all particulate matters and everything else, what's going on? I don't condone my air being a toxic waste collector or my body or my family or my farm, and I want answers why is this happening and I want it to change. Thank you.

Moderator: Please.

Jeanne-Marie Herman: What? No answers to that question?

Moderator: I think that was a rhetorical question.

Jennifer Burgess: Mine may be also, my name is Jennifer Burgess, I'm a proud land owner on Saltspring. However I have also lived in Prince George like Dr. Carter and I'm very familiar with projects like Kemano 2 that were nicely closed by public just as this large room full of people stating what their requirements were and what they thought about their environment. Also in Prince George we dealt with something very interesting called beehive burners. I believe there still are some beehive burners in this province, and the reason there still are some beehive burners in this province is that they are only closed out gradually and there are considerations between what is good for the company or what is good for the public and I think that's why everyone of you came up here today, and my question really is to the Ministry of Environment but the wrong level of ministry environment is sitting here today. What I want to ask, where is the Ministry of Environment, where is the Minister, where is the assistant to the Minister? Without someone at the political level, you must find someone who has the will to find the dollars to assist the people who are sitting here to do what your number one priority is on this

list, and your number one priority is a base line study, and I for one will not take on ministry officials who are probably very hampered in doing that kind of work with the kind of budget that they have today. So I think I'm going to offer a question for ministry officials, perhaps to take back to their political level, and the question would be, do we have dollars for a baseline study? Will it be capably dealt with? And if we don't have a base line study and we end up with companies and non-compliance, what are your feelings and policies towards dealing with companies that don't comply?

Moderator: Thank you, Bernard did you have any comments that you'd like to make?

Bernard Bintner: Well we do enforcement of the permit standards and other standards and regulations. We do get the system of progressive enforcement all the way up to court action, so I think we do have enforcement and we act in appropriate fashion. We also, as a colleague to Washington State, we do encourage pollution prevention and continuing improvement. It's a many faceted way of managing for your protection and for environmental protection.

Moderator: Please.

Morbus Hanson: My name is Morbus Hanson.

Moderator: Hang on, someone else wanted to respond, I didn't see that.

Michael Ableman: I just had a question for Bernard, and the other ministry officials present, could you present some examples of enforcement that have taken place with the? Also, with all due respect, I was told directly by the ministry that there is only one ministry official oversees four of the Vancouver Island mills, and apparently there was some confusion on that so we should clarify. But my most important question is, give us some examples of when enforcement has happened, if you could please?

Bernard Binter: Well I don't have many examples for you on that, but I can give you a report on that if you like.

[Unidentified speaker]: We want it now, we want to hear it.

Moderator: Well I think that he just responded that he doesn't have anything that he can give right now. Blake did you want to respond to that?

Blake Medlar: Regarding enforcement with the ministry, it's handled by our Conservation Officer Service, we have had legal enforcements on pulp mills and the ministry would be happy to provide a list of investigations and enforcement activities associated with those mills.

Moderator: Delores, don't look pleading at me. I'm not with the ministry.

Delores Broten: The ministry did used to publish a list of non-compliance with permits but I don't think they've done it since about a year and a half before the election.

Moderator: Richard did you want to add.

Richard Stedman: I just hear a lot talking about baseline study, and I don't want to rain on anybody's parade here, but you're not going to be able to do a baseline study pre what's currently here. That would take a lot of extrapolation. You might as well determine what the current impacts, with respect to the plants, impacts are on the environment and public health, but your not going to be able to go back in time and determine what it used to be like, so that has already come and gone.

Moderator: Thanks, please:

Mort Ranson: My name is Mort Ranson, I live on Saltspring, I've come here to learn like everybody else. What I've learned so far is that none of the experts on both sides of the issue or all sides of the issue know exactly what will happen and how it will effect out health. A previous speaker said everybody here and our children and grandchildren are all guinea pigs and I think that if you are going to ask permission, you should be asking permission from us because we're the ones who's health is affected. But I also think it's appropriate that you ask permission from our government, because our government is there to protect us and although I have a great deal of respect for the people at the table, who's salaries are paid by the mill, the one person to the table who's salaries are paid by us is the representative from the government, so I hate to put you more on the spot than you already are, but you said you were here to learn as well. I expected when I came here, to be hearing a lot of advice and information from you, because it disturbs me that one of the other things that I've learned is that the government of Washington has decided that this couldn't happen there because they are protecting their citizens and have decided that it's dangerous to their health. That the governments in all the countries on Europe will not allow this to happen there because they've decided that they must protect their citizens. So I'm concerned to know why our government doesn't feel that way. I wondered, because you're our only ally in the room, if you could tell us, if you could summarize what you know about this before you came, and what you've learned since

you've come here. So that we know what you're going to be saying to the government and encouraging them to do.

Bernard Bintner: I think that's a good question. I do agree, I'm gathering information from a lot of sources, including the people in this room. I don't want to pre-suppose the answer to whether this permit application is going to be approved or not, but we will look at it in all aspects, and we will do it for the protection of the environment and for public health. So whether or not this has been approved in other jurisdictions or not, this is only part of the equation. We need to look at all the science we haven't got, we're still waiting for technical assessment reports from the company. We're going to be getting those, I understand. We've got some now, but we're going to be getting more. There is some indications from this island and from other places where similar situation are occurring, that there could be some benefits but we'd have to wait and we want to see the results, before we make our mind up.

Moderator: Graham first, then it'll be Michael.

Graham Kissack: I'd just like to put a little clarification on the notion that everything's rosy in the Washington State. Longview Fiber, that operates in Washington State, actually has approval and actively burns coal in their power boiler along with hog fuel. So, see there's another mill, not too far down in the Georgia airshed, that's doing exactly what we're doing in Campbell River, and that we've approved to do here. The other thing I'd just like to let you know about is this notion of disposing of tires as a fuel. The U.S. EPA estimates that 64% of all scrap tires in the U.S. are burned as fuel. So this is happening everywhere, this isn't something new we're trying to do.

[Unidentified speaker]: All the more reason to stop it here.

Moderator: Just one thing, you said approved here, you mean that it's been proposed here.

Graham Kissack: That's right.

Michael Ableman: I'll pass on to Rich, just because it's happening everywhere doesn't necessarily make it the right thing to do. For the sake of transparency, this is not about putting people on the spot, but I think because it came from a government official, days after the open house that took place here that Norske sponsored a couple months ago, I was told, and I quote, that the ministry viewed these files as a positive thing and that they would likely issue the permit, unless some unusual or extreme sciences presented to them that it was counter to what they already had. I think that it's important that everyone

know that that was the position of the ministry two months ago and I'm glad that there's some wavering on that at this point.

Moderator: Richard

Richard Stedman: You can see that the international incident has been done, I don't want to misrepresent Washington State, I'm not here on behalf of Washington State. I have small jurisdiction, I'm not even here on behalf of them, I'm here as an air quality professional. Yes, it is possible that this type of design could be situated somewhere in Washington State without a doubt. But having said that, if there is a major change to a plant, we call this new source review, we would expect the plant to go through an exhaustive and extensive permit renewal, where we would totally look at the entire facility and emissions and then look at the best available control technology and also the best technology for firing this type of fuel. So what I said in my introductory remarks was that based on the information that I was provided, this would not fly, and it definitely wouldn't fly at a public hearing.

Moderator: Peter wants to add something.

Peter Carter: One toxin that I didn't mention was mercury. I was surprised to see the company's proposal where, unless I missed it in the coal section, there was no mention of mercury at all. Elemental mercury cannot be captured efficiently, it's a real problem, it's a global problem. It's one that's been addressed by all levels of government. There is some new technologies which are being investigated. But it remains a difficult and important problem, it is as most people know that it's a very dangerous toxin. It can be transferred from mother to child, neurological development problems, ... that sort of thing. So if we're talking coal we have to talk mercury.

Moderator: Please

Charlotte Barrow: Hello my name is Charlotte Barrow and I'm currently residing in the Crofton airshed. So thirty months for bringing in this equipment, which is two and a half years bringing in equipment for a two week or one week job. My question is what the cost is going to be to NorskeCanada in dollars and energy to remove the equipment if the procedure should prove detrimental, and whether you will be willing to pay that?

Moderator: Graham

Graham Kissack: Can you clarify the question?

Charlotte Barrow: Yeah, I'm wondering if you've done any research to discover what the exact cost in dollars and energy it's going to be to remove this equipment that's going to take two and a half years to bring in, if it should prove that this is going to be detrimental to the health of the environment?

Graham Kissack: Well the reason for the thirty month trial is it's not two weeks of testing. There's many two week segments of testing, and if you've read the trial plan, there's actual multiple trials with each fuel given different qualities of the wood that's being used, different operating rates of the boiler, different fossil fuels being used in the boiler. So, we're looking at all the combinations and permutations throughout this run period, so it isn't two weeks in thirty months, it's many two week trials spread over three different fuels. That's the reason for it. In terms of answering your question about the cost, we haven't looked specifically at the equipment yet, and part of the reason is it's because we're still seeking approval to do it. [TAPE CHANGE] So what we do as environmental managers of all of the facilities is rely on independent recognized experts to help us.

Charlotte Barrow: Thank you.

Moderator: Thanks, please.

Colin James: My name is Colin James, and I live here in West Holm which is just down the hill. I'm also part of an organization called POWER, which stands for protect our watershed and environmental rights. We've been supposedly working with NorskeCanada for several years now, but it's not really happened. I'm really amazed to hear the representative for the Ministry of Environment saying that NorskeCanada is currently building a state of the art waste disposal dump site. Let me tell everyone here a fact, that waste disposal site that's in construction now is going to be tandem, it's going to be Siamese twins with the old dump site. The old dump site has no liner in it, does not even have a clay berm, the berms are made of sand. You said Graham that there was a strike in 1997/1998, you made a statement in 1997 saying that the current waste site had a sixteen month capacity. Well my math says that in 1997 to 1998, and were here now in 2004, but we're well beyond sixteen months. That mountain of fly ash sitting there is way way above the berm. Your going to put a new dump site in tandem with it, it'll be a Siamese twin joined with it, and you may put a state of the art liner in that new dump, but you will put in nothing in the old one. And if there's anyone here who's had children, would one of them, just one parent here tell me that they would ever put a diaper on only one leg of their child. Any leachate, any crap out of that dump site is going to flow into the old waste site and is going to leach out into out watershed. The other thing is, that you said that the waste from these experimental burns would be carried in trucks and is currently watered down. That's true, it is watered down, the trucks drive through the

sludge on their way to the disposal site and they're also regular gravel trucks. They have a regular gate on the back, and you will see that wet fly ash or leachate dripping out the back of that truck on it's way to the ... site, one of the things we've asked you, begged you to do, was to change that way of delivery of your waste to the site, we've heard nothing on that from you in over two years. Why should we trust you now?

[Unidentified speaker]: Answer, yeah, why should we trust you now?

Graham Kissack: Well I guess the first premise there is I guess were believing everything Colin is telling us. The legitimate answer is that the landfill we've currently improved, basically the construction of the new site is underway. The use of the old site will be suspended for the next decade while it's monitored and assessed by the province. And if you read the permit closely you'll note that the regional manager has to provide approval that we can continue to use the old site. So the landfill site that we will be using is a fully engineered site with a geotextile membrane liner with leachate collection systems, with ground water monitoring systems in place, and it is state of the art. I think Bernard, I don't know if you want to talk to that.

Moderator: Just hang on for a second, I don't think Bernard got anything on that right now, he's shaking his head, so I just wanted to, I see that most of you that live in Saltspring Island have got really good clock management, and it's a few minutes to the ten-to that we had said we were going to try to finish this meeting or something close to that, but let's hear from the people that are standing here.

Ingrid Vopel: It's Ingrid Vogel. I live in the airshed. I just want the public to know I took the black binder home, the binder that Norske was trying to explain to us, the burning trial. I took it to an air expert, Dr. Dominique Cray from McCray associates in Victoria who are air and environmental consultants and they said, they totally checked out the binder, and they said that all the test results from all the minerals, Norske did not show the methodology of how they arrived at these results. You could not possibly do a valuable, correct evaluation given this data, when we don't know how it was arrived at and it was not transparent.

Moderator: Are you done? Graham, did you want to say something?

Graham Kissack: I think we can try and talk to that, Al did you want to? Alan Franco operates his own independent testing company. He's got about a hundred clients. He's the fellow who's employee's test the stacks and report the numbers.

Alan Franco: Thanks Graham. I think the reference to the document in question only had a synopsis or a summary of the data and much of the detail of the methodology that we used was referenced in the documents, so you had to dig a little deeper than what was just in that particular document. The reports that we present are quite voluminous in terms of detail methodology, the methods are mandated by EPA or Environment Canada in some cases, so the fact that all the details aren't in that report isn't surprising, they're somewhere else, you just have to dig a little deeper.

Moderator: Thanks Al, please.

Jill Thompson: My name is Jill Thompson, I'm with the Sierra Club of Canada, B.C. chapter, and I'm also a resident of this area. First of all, as a resident I would just like to say that I completely back up Michael Ablemen's list of demands that he gave at the beginning of the evening, and I'm fully behind you on that. Secondly I'd like to say that I'm also very disappointed that our MLA is not here today. In my role for the Sierra Club of Canada I'm just bringing a statement from our Quadra Island local, which worked very hard to try and stop the coal burning at the Campbell River at Elk Falls plants, and so they just asked me read this out to you. The Quadra Island Sierra Club felt that their conclusions in the coal studies at Elk Falls were not scientifically justified due to the extremely small number of data point or number of tests. The so-called three month test resulted in just two runs for each type of fuel, so for example, the test that the company did on burning gas in salty wet hog fuel resulted in one really high result and one low. From volatile organic compounds, one result was .05 milligrams per SM3. Delores help? SM3, what's that?

Delores Broten: It's a volume, a standard cubic meter.

Jill Thompson: Standard cubic meter. Thank you. And one at 1.34 milligrams per standard cubic meter. They then just averaged the results at 0.7. This same averaging was also done with other pollutants. After almost a year of running a recent study shows the sulphur dioxide emissions are testing 60% higher than their initial study. So thank you very much to everyone who is here. I just really want to say that with the cuts that happened to our provincial government and our Ministry of Water, Land and Air Protection, regardless of the best intentions of this gentleman at the table, we really need to stand up for our own environment these days. So, it's great that we're all here.

Moderator: Thank you.

John Davies: My name is John Davies, I live on Saltspring Island with two children and I happen to be a lawyer. Science is wonderful, it cuts both ways, sum it up with Murphy's law the possibility of human error enters into every system, with disastrous consequences

to our environment over the history of industrialization including here at Crofton. I don't have a lot of trust in applied science and its ability to manage that critical function without dealing with psychology, alcoholism, human failures of all kinds. I'm not putting my children's lives in those hands willingly. That said, we're left with the political, legal process which is practically non-existent. Other places, other times may be here before pollution control or waste management panel, formally appointed by the government with a full and open hearing, where all evidence would be heard. It might take a week or two, but we'd all know what was going on. That's gone, for that I say, Mr. Campbell, Mr. Graham, and Mr. Cole shame on you. Now, were dealing with the company, and to thank you Mr. Manners for making the conversation polite and Mr. PowerPoint here, excellent public relations man, a worthy adversary. I've listened to your answers, from my professional and personal point of view and quite frankly I find it hard to believe very much of what you say. The critical question in the area of globalization right now is the question posed by Ms. Carr at the beginning, what are the standards in the jurisdictions of excellence in this world, not the lowest common denominators, and we live in an arena where industrial firms can play off communities around the world against each other. We're already seeing it here, well there doing it in Elk Falls, there doing it here, there doing it there. That is a degradation of standards and a degradation of our environment and our health. You were called upon to answer a direct question, what are the standards in Norway and Sweden? You avoided that question, and that is the I'm know I'm being pointed it's my style, I'm sorry it's my training, but none of your other experts answered that question. I'd like to know what are those standards, they're said to be excellent, if you simply said you were going to follow them, we could all go home and we wouldn't all have to become amateur scientists, trying to compete with your experts. I do thank all the people here for coming, taking time away from their television sets. I was sitting in my air conditioned office in Duncan in 1995, choking on your effluent from this mill, you might have been new owners at that time. I phoned the mill, a very nice man answered the phone and he said "well thank you for calling, we have so many emission points here, we depend on the public to tell us what's going on." Well I think you've opened a can of worms and I hope the people here help the people who organized this meeting, I know how much time it takes away from families and friends too these things. So, everybody here, if you want this to change, it's up to you. Unfortunately in this province the law only comes in at certain points in time when a company goes against the will of the citizens to the point where citizens sit down in front of trucks, then the police are called, you go to ... contempt of court, you go to jail. This community, this company don't want to end up in this situation, that's why everybody is here tonight. I urge the people in the company to bring to their best to be sincere, honest and open because all we have is each other because government has left the playing field at this point. Thank you.

Moderator: Graham, did you have anything.

Graham Kissack: I guess I would just answer the question that we're not in Norway, we're in British Columbia so I'm not familiar with Norwegian standards. All I can talk to

is the British Columbian and Canadian standards that we have to work around. I just happen to know the EU best available technology figure, that's why I provided it.

Moderator: Please.

[Crofton resident]: Hi I'm just a resident from Crofton, B.C., no specialist, but I just wanted to get my point of view as a resident here for the last five or six years. I'm recently married and a perspective mother, having very big doubts about raising my family here. Just a few incidences that have happened since I've been here. About a year ago there was a large dump of an oily fallout that probably a lot of people from Crofton remember. The mill was very good, in that they came around or contacted them I guess, with people to spray the stuff off our houses and our decks etcetera, cars. I have noticed that lately, I guess over the last year or two, that it's been happening more frequently, it's not that sooty, I think that one seemed to get people more agitated because it was very oily and sticking on everything. But I still see, by the way car maybe that's why I noticed it a lot more often, coming out to my car in the morning and seeing ash on my car. Not like enough to see from far away but up to the point where when I put my wipers on when the rain comes. Now the other thing is, in the summer, I like to open the windows to let the cool air in, cool fresh air in, and this summer frequently, I think I'm thinking about it a little more now since the ash that happened before that, that the air that comes in some nights smells like exhaust, smells like there's a car running outside my window. I have shut the door and the window and there are no cars that late on the road. So I guess my question would be what is it that I'm breathing in then, and I imagine that the ash is coming from inefficient burn into whatever low key term, whatever the problem is, what is that that I'm breathing in then? Also what will happen during the ... burn of the TDF and other alternative fuels? What will be on our house? Like, I tried to find out what it was because, I don't have any children but I have dogs, and I think about people who have kids who run around in the yard, you are not going to go and spray all the yards and get all the ashes off the ground, the kids are going to get it on their hands and their mouths. I mean I was worried about my animals, but there's people with a lot bigger worries than that, and it's really, I sit here and listen to people talking about hormone imitators and endocrine disrupters that can effect embryos and developing children and asthma and all the rest of it. It really makes me worry about even being pregnant here, not just raising children. So I guess what my question was is where could I find out what it is the ash then, I tried to find out but no one really had the answers and the mill had a line for people to phone but it was always busy. Where can I find out what that is? And what it's lung and short term health effects of it? And also it's going to be coming up again you would thing, just a prediction, that's it.

Moderator: Thank you. Ministry? Graham?

Graham Kissack: Let me try and answer the single question that there's been a problem with the boiler since I guess probably 2000 that results in the small spots of ash. Basically, what it is wood ash which is passing by the precipitator being discharged out the stack and then it deposits on the town, and that's what's on your car. This notion that's it's oily and sticky is, what it actually is, it's the sodium chloride, which has that sticky feel to it. And I answer your question before Delores does, yes it has trace levels of dioxin in the ash. In terms of odor that goes with it, there won't be any odor that goes with it. If you're smelling things you're probably smelling something that is completely unrelated to the operation of the power boiler. You're probably smelling the sulphur gases that come from the craft process and from the recovery boilers.

[Crofton resident]: It's not really smell, it more of a ...

Graham Kissack: Yeah, you sense it but you don't smell it. That's right and different people respond at different levels. Delores mentioned one part per billion, it may actually be lower than that that people will respond and other people don't even notice at five parts per billion. So, that's what you're smelling, part of the notion of this trial is to improve the stability of the boiler, to improve the temperature of the combustion and avoid these episodes that continue to dog us.

[Crofton resident]: What's happening with the wood now? What will happen? What happens with the new testing?

Graham Kissack: But I think this is what you have to understand, you've got a continuous feed of wet bark that is being fed to the bottom of the boiler, and to try and keep that flame in there we're adding fossil fuel, but we don't add it where the wood is, it's actually added about ten or fifteen feet above. So the fossil fuel that's being added and burned on top isn't actually helping the wood to burn any better. What you need to do is to get fossil fuel mixed in directly with that wood supply. That's why it's being done in so many other places that we've talked about, all these other facilities, is they're putting this solid alternative fuel in with the wood supply and it increases the temperature of the combustion and stabilizes the boiler which reduces the particulate loading on the precipitator and reduces the fine particulate emissions and it also, with a better combustion, reduces the dioxin and furan emissions.

[Crofton resident]: So ash is pretty much harmless you say then. And then you don't predict any fallout to happen with the new ... You say now it's just wood ash, but what about tire or creosote or coal?

Graham Kissack: Well of course, a number of people have already talked this evening, that there's sort of this magic 900-1000 Celsius temperature that 99.9% of creosote and

wood preservative compounds are destroyed. And of course we haven't been burning that in the boiler. So in terms of what you've seen thus far, it's essentially ash from the boiler with sodium chloride and some background levels of dioxin and furan. I don't know if Ross wants to talk on the, there's a study that was undertaken in 1994 by Environment Canada, that actually looked at the health risk of dioxin from coastal power boilers and I don't know ...

[Unidentified speaker]: Excuse me, I don't know if I can stand very much more of this, I'd like to have my turn, it's getting late. And I'm sick and tired of hearing this language.

Moderator: We've had respect all evening, excuse me just a minute, we have, and everybody's had their turn, and he wasn't quite finished, and when he is, whoever's the next microphone will have their turn, so would you just hold on just a minute.

[Unidentified speaker]: I don't whether I can.

Moderator: I think that he's pretty closed to finished.

Graham Kissack: I think it's an important question and I think it's one that there's information that's available.

[Unidentified speaker]: I don't want any more information, I'm sorry.

Moderator: Excuse me , just let him finished.

[Unidentified speaker]: No, I haven't heard a lot of stories I was expecting to hear cause we've bogged down with all this scientific and technology thing, when our lives are at stake. I'm very respectful of the lives of the people who live around here, I live around here. I'm very respectful of the time we put in to try and come here, there's not one person representing our health up front. I am sick and tired of hearing these measurements, this idolatry of science that goes on and professionalism when there are people here I've had phoning me today and this last week where they're worried about the asthma in the children and our lives are much more important then any big powerful factory. I do want to welcome North Cowichan Council, the members who are here, I know they have been stuck with having to play off money and power against our lives as well. I just feel I'm very grateful for this tremendous turnout there's been, the response from the media, but I feel as though this is a dead end and that is the monster there in our lives. The jungles of Indonesia are being pillaged so that we can have all these tires, so

that we can burn them, so that we can have more power and use more paper, that just seems slightly crazy to me. Okay. Thank you.

Moderator: I've been asked that we try to finish this meeting as soon as possible because the janitor needs to come in and we're keeping that person.

Michael Abelman: Is that what part of it that we have to stop, Carol do you know.

Carol: Yes, the janitor, when I picked her up to open up tonight told me that there is going to be a function in here and they have to come in and wax the floors and she ...

Michael Abelman: That wasn't part of it.

Carol: I know, I know.

Moderator: So let's not waste any time on this, let's give these people an opportunity. I just ask if you can be brief and if you have any responses, you know that we don't go back over ground that we've heard before in the responses. Please.

[Unidentified speaker]: All I have to say is corporations world wide, my point is it is 47% of all the stocks and all the stock markets around the world are held by less than 1% of the population. In the last year due to, well over the last few years, due to WTO, I mean NAFTA, the corporations received profits 2.4 times the same period that was studied previous to NAFTA gaining more power in the amount of money and there using it against us. Our governments for example, using the same analogy, our money, what do we get? Fish farms, the gas additive, corporations have a right to profit. So corporations have gained more power through our governments to use against us then flesh and blood has, it's absolutely despicable. So relying on your government to fix this problem is just wrong, it's not going to happen. We've seen it, I mean I watched our own MLA on TV on the local channel here, announce that our economy here was really good. Now I'm not even going to mention the tree ... license but, and it's relation to the increase in the salt because we're hauling the wood out of the saltchuck rather than trucking it in from the interior of the island. That would be a problem wouldn't it? That's why we've seen it increasing the salt in your effluent?

Graham Kissack: I can't talk specifically on ... where it's coming.

[Unidentified speaker]: Of course you can't

Graham Kissack: If you would let me answer. But the reality is that the solid wood companies for whatever reason are bringing their wood and continue to bring their wood in log booms. NorskeCanada doesn't operate any saw mills or solid wood, we just buy our wood from Doman's and people like that.

[Unidentified speaker]: My point here is that the problem is much larger, absolutely it's much larger than the pulp mill. And trying to patch this problem with burning tires isn't the answer. The answer is to stop the bleeding that's going on here. For the lumber industry, we've got people here that are voluminally behind this process of burning tires simply because their paychecks depend upon it. It's wrong and when we pay our government, our Premier tells us that we've got to raise the wages of the MLAs to attract the right kind of person to represent us. I suggest he's wrong, it seems the wrong kind of process going on here and we have to ask, is this democracy really working, and I don't think it is. More and more people have to stand up as individuals and take back, you can't keep feeding your rights to a higher form of government. Eventually we end up with totalitarianism, it's not working. We have to ask for it back.

Moderator: Thanks, I see more people have joined the line, I'm going to ask that you don't or were going to have a problem in terms of getting out here in time. Michael real brief, real brief please.

Michael Ableman: I'm assuming everyone here has put their name on the list. Elizabeth is that the case for the most part? If you don't have your name and contact information, the way that we transfer the overwhelming concerns that we've experienced here tonight into some form of actual action is to organize, and we need your information in order to go to the next stage. So please, if you have not put your name and contact information down give it to us so that we can move forward here. Thank you.

Moderator: It's being a little unfair because you're at the end of the evening but please just real brief.

Marion Klein: Good evening, my name is Marion Klein, I live south of Cowichan Bay. My first question is, could you tell me what the term TDF means, please?

Graham Kissack: Tire derived fuel.

Marion Klein: Tire derived fuel, thank you. I have three very brief comments and a couple of questions. I often read that the Cowichan Valley wants to shut down my wood

stove and I am privately resolved that I will give up the day that Crofton closes. As I said, enjoying the smell all the way to Cherry Point. However I think I would caution everyone here that Norske should really not be the target, the government should be. They have undermined the enforcement and the standards of the Ministry of Water, Land and Air Protection, they have undermined our hearing processes. This evening reminded me of my misguided participation in two public hearings, one for the GSX crossing, and one for the IGP plant. Now Norske will know as much or more than me about those issues and with that as the context, I would like to ask a couple of questions based on something that Delores mentioned. Before I ask those questions I want to put in two comments to take back to the powers that be at Norske because from those hearings I'm surprised to hear Norske suggesting that we should be relying on any statistics put forward by the proponent, as that is not a healthy experience with B.C. Hydro. And also drawing a similar parallel, I think that your misguided putting forward assurances based on an independent reviewer. I have read the letter from Norske to the Utilities Commission about B.C. Hydro's independent reviewer. On that note I want to ask, there's been several mentions about tonight and public hearings, to me tonight is an information meeting and not a public hearing and I'm not sure whether there is a further process that can be invoked so that all the people tonight can go through the kind of rig-a-ma-roll that I experienced. Don't expect satisfaction from the powers that be because David Anderson Minister of the Environment, doesn't care about air pollution. I wanted to ask if there's a further hearing process and I wanted to ask, if indeed as Delores implied, there is a link with Norske's involvement in the coal pre-tender bid because it occurred to me that if this were to be approved, then if they did go anywhere with the coal pre-tender's bid or any other involvement with supplying electricity on Vancouver Island, there may be an implied expansion in this use of TDF fuels and I think the public deserves to know that.

Moderator: So let's get the answer to your two questions and then give these other people a chance.

Marion Klein: Yes, I don't need them tonight, I'd like them on the public record, if it can't be tonight.

Graham Kissack: I can answer them right now. It wouldn't be a surprise to anybody that Norske did contest the IGP simply because when we initially looked at the project we thought that putting co-generation at the mills on the island provided an attractive alternative, and I think our record stands on that and the proposal we submitted stands. And we testified at the BCUC and actually I testified too, and basically the notion of our project was it was lower in terms of green house gas emissions and VIGP simply because a stand alone gas turbine combined cycle is relatively inefficient, there's a lot of heat going in to the air whereas we had heat recovery units on the end of those gas turbines and that waste heat would be rolled into the mills to create more steam and hot water and would allow us to shut down one of the fossil fuel boilers. That was the basis for

contesting VIGP, and ultimately the BCUC held that decision which is where we are today in terms of B.C. Hydro looking at other alternatives. NorskeCanada right now is looking at the options it has in terms of bidding on alternative energy projects. I haven't seen what they are because basically my role in the process will be to help the company look at the environmental picture of whichever proposal they decide to go with. So should they choose to file something, at that point in time, then we'll start to get a better understanding of it from an environmental perspective. But what I will answer on your question is that this alternative fuels trial has no link whatsoever to natural gas supply availability on Vancouver Island, what it's targeted at doing is reducing the fossil fuel costs in the boiler.

Moderator: Good, now if we have too much of this, we won't get through ...

Marion Klein: I know ..., I just would encourage you to make this process less of an exercise in futility than B.C. Hydro. Thank you for your time.

Moderator: Thanks, and I think there was one other question that you did ask, Bernard is there a public hearing process? Just a yes or a no would be great.

Bernard Bintner: Well as part of the permitting process, there's not normally a public hearing process, so you can ask for one, I'm not sure how that would work out.

Moderator: Thanks, please.

Lorna Foss: Lorna Foss from Duncan. There was somebody who had to leave from Campbell river and she asked me to ask a couple of questions first. She wanted the public provided with test results from all the mills and equipment that you've mentioned before, where would a person get that?

Graham Kissack: Well all of the test results are public record, they're filed with the ministry, depending on the mill. The Vancouver Island operations are filed in the Nanaimo ministry office, otherwise if it's the Powell River operation, it's the Surrey office in Vancouver.

Lorna Foss: She also mentioned that the railroad ties are sprayed annually with a plant retardant and she was wondering whether that would have any effect for the emissions.

Graham Kissack: I don't believe so, the characterization we've seen on the ties hasn't identified any product like that. It's the testing results we've seen and presented.

Lorna Foss: Okay. my question my self, do you know how many mills there are within a hundred kilometer radius of Crofton? And has anybody studied the accumulative effects of having all these mills on this island within a few number of miles of each other. That's probably to you.

Bernard Bintner: There is probably less then a dozen mills, I'd say within a hundred mile radius. But accumulative effects of all those mills, I can get you a report, if we have it on net. It's not my job to judge the accumulative effects.

Lorna Foss: Who's job is that?

Bernard Bintner: That would be some other individual within the Ministry of Environment ...

Lorna Foss: So if a person wrote the Ministry, someone could be able to give you that information.

Bernard Bintner: If you give me your address and your name I can look up such a person if they are available.

Lorna Foss: Okay. And I'm just amazed, actually when a proposal like this comes by that you don't do any research of your own, that you just accept the company's research and you just hope that somebody in the community has some other information for you.

Delores Broten: Let me answer that, they don't have the money to do any research of their own. We voted for a government that was going to cut taxes, when you cut taxes you cut your regulatory oversight, when you cut your government, your Ministry of Environment, they can't do anything except beg the mill for information. And that's where we've been at for a very long time. It's our fault as citizens that we don't demand that our tax money be spent well and appropriately instead of just demanding that we don't pay any, that's the problem. In terms of your issue about study, the only study I know of that's similar to what your talking about is one that was done for the Alpac mill in Northern Alberta, where they did a Northern River Basin study, they brought in all the First Nations, they combined traditional scientific knowledge, it was just the most amazing study, it had like three or four volumes and I think it's available on the Internet through Environment Canada. That's Northern Alberta.

Moderator: Thanks Delores, please.

Michael Ableman: Rich wanted to address that.

Richard Stedman: Just really quickly, on the railroad ties. There are a number of products that primarily you have to worry about within the tie itself and that's pentachlorethenol to preserve the wood, creosote products and arsenate or arsenical compounds that may be there and that's a retardant and a preservative as well. With respect to any kind of herbicide or anything applied, I'm not familiar with that. A lot of herbicides these days have that are selected towards the weeds, so I wouldn't think that's the major component you'd be worried about, the other chlorinated types of compounds and the arsenical compounds as well.

Moderator: Thanks Richard. Please.

Dr. Stephen Faulkner: Hi, my name's Dr. Stephen Faulkner. So I've come out of my little doctor's office to say a few words. I got stimulated to write about three o'clock in the morning so this is a little jumbled and fairly emotional, but this is what was going on in my mind about three o'clock this morning. I realize that the mill employees many to people, and I'm not here to suggest closing it down, I'm here on behalf of my family and my patients so that they can breath clean air. If this were a clinical trial being proposed by a medical researcher it would have to go to a medical ethics committee. For example make twenty rats breath ambient Crofton air for one hour a day for thirty days. Another sample group would be twenty rats breathing ambient air plus emissions from the rubber tires one hour a day for thirty days. Another group would be twenty rats breathing ambient Crofton air plus the air from the railway tie burn, etcetera, etcetera. So this experiment would probably pass the medical ethics committee because rats are expendable. Now try asking twenty humans to enter the same trial, you would not get by the ethics committee. Now down to the ethics committee with this proposal, let's take eighty thousand people which I estimate is the population in the airshed that we're talking about that feeds the Cowichan District Hospital from Ladysmith to ... to the Gulf Islands. Expose them to the ambient air from Crofton for forty years. People begin complaining so lets add scrubbers to clean the air, which we've done for the last ten years of so. Now forty, fifty years later it's getting too expensive to burn using natural gas so let's add rubber tires, coal, railway ties for thirty days, three month, thirty month trial whatever, to reduce costs and perhaps actually make the air cleaner. It would take a very brave ethics committee to approve of this experiment. Hitler once said the bigger the lie the more the people will believe it. You wouldn't be allowed to ask twenty volunteers to breathe ambient Crofton air and rubber tire mix for one hour per day, but you get away with it on eighty thousand people instead. I've been a family physician in Duncan for twenty years. At medical school we learned about preventative medicine, stop the illness before it

starts, prevention is the best medicine, an ounce of prevention is worth a pound of medicine. I've seen thousands of patients over the last twenty years and I'm standing here this evening on behalf of them. I work five days a week seeing one patient at a time, many with illnesses related to and made worse by air pollution. It is very slow going and it is not preventative, it's too late. If I can help persuade NorskeCanada not to burn rubber tires, coal or railway ties in their boilers, I will be helping far more than the twenty-five people a day in my little office. Thank you.

Ingrid Vopel: My name is Ingrid Vopel, I live in the Crofton airshed. The Norske plant in Crofton loses about ten million every quarter, it is not very profitable so I don't understand why we all put as much at risk. The health risks are real, my daughter moved to Shawnigan Lake School and all girls had hormone imbalances, they were put on pills starting in Grade 8. You wonder why this is so epidemic. Talk about endocrine disrupters, talk about health effects. I don't understand why we keep Norske in business or why we don't improve their business so we can all help the air.

Moderator: Thank you, please.

Medi Nigeria: My name is Medi Nigeria, I'm from Victoria. I have a question first. I want to know how much money the company is going to save by burning tires and wood and rail ties every year.

Graham Kissack: We don't know precisely how much that is.

Medi Nigeria: Come on, you are endangering our lives here and you are doing this not for our well-being, you are doing this to save your international corporation some money, how much?

Graham Kissack: If I could finish, we're using approximately ten million dollars per year in fossil fuels at the mill. In Campbell River there is saving between two and three million dollars per year in fossil fuels. I don't know what we'll save in Crofton until a trial, if it were to be undertaken, was run. We don't know.

Medi Nigeria: So do you want to save two or three million dollars every year and endanger our lives. Two nights ago, when I prepared about this, I went to the internet, in one hour I got five papers from New York, from Florida, from Montana, and from other places, and all of them show the increase in toxic matter ... after burning tires. Do you think we are a bunch of imbeciles to save you some money and endanger our lives, our children's lives? How many children have to die because of leukemia for you guys to make a little bit more money? ... government allows you to do it. We are not going to

allow this government and companies to devastate our lives here, to contaminate our land to contaminate agriculture land, our animals, our children and our lives. We are not going to allow you. We are not begging you to listen ,we are telling you, you don't have any choice. We are the people and we have the right, this is our community and we're not going to allow you guys to come here and devastate us. Take this to your bosses and tell them. We are not going to allow you to do this. It is time is over for this type of bullshit ...

Kevin Page: My name is Kevin Page, I'm a resident of Crofton. My question is for B.C. Land and Water, as I phone them this morning my concerns of my six year old daughter with asthma, I was wondering what is going to be coming out of these stacks as they burn tires and creosote and coal. They couldn't give me an answer. So I asked them if these materials are recyclable. Yes they are recyclable but we can only recycle so much. So then I asked them, so are we using Crofton as a tire dump. No answer. I'm just questioning the knowledge that our Land, Air, Water people know of this. If they can't give me answers of questions that we ask or did they just learn today?

Moderator: Is that a question or a statement.

Kevin Page: It's a question, if they just learned it today or why they wouldn't give me an answer.

Moderator: Bernard

Bernard Bintner: I'm not sure what your asking.

Kevin Page: I'm asking, today I phoned and asked about the materials that would be coming out of the stacks at the Crofton Mill. I asked what the pollutants would be, they wouldn't give me an answer.

[Unidentified speaker]: They're already burning it.

Moderator: No, please, please, hang on, we're dealing with this.

Kevin Page: So I'm hearing things like mercury and everything else, and those are the answers I wanted to hear, which they would not give me. As a citizen, we consume this, there is three ways of consuming something, you can absorb it, you can breathe it or you

can digest it. So we are consuming this, are we not? This is like a food labeled product, do we not have the right to know what's coming out of there when we ask?

Moderator: So you have a question, I don't know if Bernard can answer that or not.

Bernard Bintner: Well we know what's coming out of the mill and we're setting standards and we expect the mill to meet those standards.

Kevin Page: Well if you guys knew why wouldn't you tell me, on the phone?

Bernard Bintner: you didn't phone me.

Kevin Page: Okay. well it was a Walter or a Warren that I spoke to there.

Bernard Bintner: Is Warren here and do you want to speak to that.

Warren: If that was your question we can get that information for you, I don't have it off the top of my head.

Kevin Page: Okay. but when I phoned you and asked you, you said "sorry we only recycle so many tires and we need the power". That was your answer to a question that I didn't even ask you on the phone.

Warren: Okay.

Kevin Page: So I just wanted to know your knowledge of this whole situation.

Warren: It's true that we can only recycle so many tires.

Moderator: Thanks, Delores, you know I'm trying my best to try and get this last person a chance to speak, so please.

Delores: I will be very brief. Yeah, one of the things that I am personally worried about this tire burning fad is that it's going to put the businesses that have been built up in the

last decade that build product from recycled tires, there going to have competition with the pulp mills for the tires, and you know I don't think the little guy are going to win.

Graham Kissack: To just answer the question about what comes out of the mill everyday, I can provide the answer, but I'm not sure I'm going to be credible, but there is a few other sources you can go. There's the National Pollution Release Inventory which is operated by the federal government of Canada, you can look there. They also have estimates of the criteria air contaminants that are leaving the site as well. You can get an independent snapshot of what's leaving our site from the federal government.

Moderator: And over to you.

Paul Gejorian: Paul Gejorian from Ladysmith, I can see the mill from my house. One quick question, what disappoints me about this proposal is that you said, Graham, that it's really just a trade off between one set of pollutants for another and I'm wondering, we want to get to less pollutants and it sounds like the hog fuel, the salt-laden hog fuel is one of the sources of this whole problem. Has NorskeCanada looked into alternatives to that, can you just say to Domans and say "We're not going to buy any" of the salt-laden hog fuel, and maybe that would force them to stop doing salt water sorts and get them on dry land with you know salt water sorts are terrible for the environment ... So it's a double problem that could be solved by just saying no.

Graham Kissack: I mean I agree with you, and this is a problem that's much bigger than NorskeCanada, this is a problem faced by all of the mills on the coast. Delores is very familiar with it. I'm not a forestry solid waste or solid wood person, but what we've been told by them on this committee, because we're both on it, is that the environmental effects of building logging roads and setting up dry land sorts in sensitive river estuarian areas has equal detrimental effects, so it's six of one, half dozen of the other, and I don't know. But to your point that it's a basic saw-off around pollutants, we're quite confident, and the results that we've seen else where are giving us comments to believe that our emissions of fine particulates the PM 10 and the PM 2.5 that have got all of these potential respiratory health concerns that the fine doctor talked about earlier tonight, we're quite confident we'll get those levels down with a more stable boiler. We've seen in Powell River, we've seen in Campbell River and Port Alberni, that the use of these fuels will bring down the levels of dioxin and furan. Are there some other compounds that might go up in concentration? Sulphur dioxide is a good example. Yes it might when you compare it as opposed to burning natural gas. But the level, for instance, of sulphur in the coal compared to our fuel oil is actually lower. So you have to look at everything on a case specific basis, and the answer is that it isn't cutting dry and that's really why you, once you feel comfortable, have to do the testing.

Moderator: Please Michael.

Michael Ableman: Are you done?

Paul Gejorian: I would just like to, NorskeCanada has a vested interest in finding an alternative to that, and are you making an effort to push that?

Graham Kissack: An alternative to what?

Paul Gejorian: To hog fuel.

Graham Kissack: Oh absolutely, I mean we push our suppliers left, right and center to get a dry land sort of hog fuel that hasn't been in the ocean water, unfortunately we're fighting a running tie, for instance the Yubo saw mill used to be a very very large supplier of salt free hog fuel to us. Well everybody that lives in the valley knows that Yubo is no more. So as a solid wood sector continues to fall on it's knees or sources of clean hog fuel are drying up, and that's the problem, and that's why facilities are looking to alternative sources that can help us.

Paul Gejorian: Would this eventually phase put, would you eventually phase out the hog fuel?

Graham Kissack: I don't think we've ever entertained that, I don't know if there's someone. Phil is that something you would want to try and answer?

Phil: I think just locally, within a province, at least on the coast ... areas, that the supply of hog fuel is diminishing over time. It's still the lowest cost fuel for our boilers to make energy for the mills, so as a supply goes down you have to either bring it from further away or you switch to some other fuel. Right now there's still enough to keep us going and I guess looking into the future we see that continuing, at least for the short term. It's always hard to tell with in the lumber markets, the way they are right now, how that will continue to play out.

Moderator: So let's finish up with letting Michael have a word.

Michael Ableman: Well first of all I want to thank all the panel especially from a personal level, Bernard and Graham, this is not about individuals, we have very strong feelings. It was clear that this community is really concerned, and I want to follow my thanks to both of you for the courage to come here and hear these concerns with a very

strong suggestion, and this that if, I would like you to go back to the Ministry, and those other Ministry officials who were here, and to the company, and express the concerns that are represented here tonight, and if we do not get, there will be no compromise in this from, at least from my position. If we do not get the results through the official channels then there are other channels and we will do whatever is necessary to protect the commons, the air and water, and to protect the health of our families, I think that is more important than anything. It's way more important to me than the health of the pocket books of the shareholders of this company. I want everyone first of all to acknowledge, especially, and Rich you traveled a long ways so I don't mean to diminish your involvement, but I want us on a personal level to acknowledge that these gentlemen have heard us. It was an emotional evening and I just want to say this has got to result in some action or we will take the next step, and we will not give up until this has been resolved. This is my position.

Moderator: You've been tremendously cooperative in terms of making sure that we had a level of respect, I really appreciate that. In keeping to your time, you pushed that one a little bit. But I have had a request that a couple, maybe we could get a dozen people or so, that would help put away the chairs, we need to move the tables, those things need to be moved out. So if you could please. Thanks.

[END OF MEETING]