

Mackenzie Valley Land and Water Board

Application for amendment to water license

N1L3-0053

Town of Hay River

August 30-31, 2004

Chairman (Steven Neilson): I'd like to start off this hearing with a prayer. Our translator, Ms. Sarah Gargon has agreed to lead us in that. So I'll just ask you to stand for a minute while we have a quick prayer.

As I said before, my name's Steven Neilson, I'm the interim chair of the Mackenzie Valley Land and Water Board. We are short a couple of members this morning as a result of a traffic mishap that caused them to miss their plane. The two members, Eric Menicoche from Fort Simpson and Ms. Violet Camsell-Blondin from Rae Edzo aren't here now and won't be participating in this hearing. Nonetheless the board has a quorum and so we are prepared to proceed. I have a few opening remarks and then we'll get into introductions and start with the presentation from the proponent/applicant.

The Mackenzie Valley Land and Water Board is established under part 4 of the Mackenzie Valley Resource Management Act. The board exercises authority over land use permitting and water licensing in the Mackenzie Valley under the MVRMA and the Northwest Territories Waters Act respectively. This panel, which is responsible for issuing water licenses and land use permits outside of the settled areas was established in accordance of Section 99 of the MVRMA and has been in operation since April 1st, 2000. The Mackenzie Valley Land and Water Board took over responsibility for land use permitting from DIAND and water licensing from the NWT Water Board at that time as required by the MVRMA.

Over the next 2 days the Mackenzie Valley Land and Water Board will conduct a hearing into an application made by the town of Hay River to amend their Type A water license numbered N1L3-0053. The proposed water license amendment application is intended to permit the operation of a hydrocarbon bio-treatment pad within the town's waste disposal facility. The current water license expires May 30th, 2010. The board notes that the history of this proceeding is a bit unusual. As you may all be aware the town of Hay River has already constructed the bio-treatment pad. It is the board's understanding that the town sought advice from regulatory officials prior to constructing the pad. We are also aware that there was some confusion about the application or applicability of the NWT Waters Act to this facility. Once these matters were brought to the attention of the town of Hay River, the necessary application for an amendment to the water license was filed without delay. The town of Hay River submitted the amendment application for water license N1L3-0053 on April 23rd, 2004. Reviewers were allowed until June 9th, 2004 to comment on the proposed amendment. Interventions from reviewers were due on August 16th, 2004 and the town of Hay River provided a response for these interventions on August 20th, 2004.

The purpose of this hearing is to discuss issues relevant to the proposed water license amendment such as the revised terms and conditions of the license. Although the bio-treatment pad has been constructed it may not be operated unless there's been an amendment to the town's water license. The construction of the facility in advance of the regulatory approval is an unfortunate result of the confusion about the scope of the water license. The parties to this proceeding should be advised that in these circumstances the regulatory risk is on the town of Hay River.

This hearing has been constituted under the NWT Waters Act and under Section 24 of the Mackenzie Valley Resource Management Act. I'd like to make note that these proceedings are being recorded and will be transcribed later therefore I ask that when you speak please precede your presentation with your full name and indicate who you represent. Also I ask that you please be mindful that we have an interpreter and that these proceedings are being translated so when you make your presentation please pace yourself and your comments accordingly so that the translator can keep up.

The order of proceedings will be as follows: The board will, first of all, hear from the proponent, the town of Hay River regarding their water license amendment applications. Once they've completed their presentation questions can be asked of the town by other parties to the hearing in the following order: first, registered interveners; then any registered speakers in the general public; then board staff; consultants/counsel of the board; finally board members will have the last opportunity to speak and ask questions. When the questions of the applicant are completed we will proceed to presentation of the interveners who've been registered. There'll be an opportunity after each interveners presentation and the order for these questions will be as previously set out. Those members of the public who've registered here today will also be given an opportunity to address the board after all of the registered interveners have done so. This hearing will take place in a group of 3 sessions. The first being from roughly 1:45 p.m. today until 4:00 p.m. We'll then recess for 2 hours, reconvene at 6:00 p.m. and meet until 8:00 p.m. and then again tomorrow morning from 9:00 a.m. until we finish. This evening session from 6:00 p.m. to 8:00 p.m. will be open primarily for members from the public who are not able to attend during the day session. If there are no members of the public interested in speaking or if we finish early we will break and then reconvene in the morning. So, it may appear a bit disjointed but that will be to provide those members of the public with an opportunity to speak when they can't attend the hearings during the day.

The board wants the hearing to be as informal as possible, however, as a quasi judicial body we are bound by the rules of procedural fairness and as chair I'm responsible for the conduct of this hearing and I would ask that all comments and any requests be addressed through the chair. Once everyone has had the opportunity to speak the proponent will then have an opportunity to present its closing comments. Following that the hearing will come to a close.

I'd like to take a moment to introduce the members of our board and our staff. On my left, Jack Van Camp from Fort Smith, on my right, Joy Stewart from Hay River. At our staff table on my right we have at the far end, Adrian Paradis regulatory officer from the board. To his left, John Donihee, board counsel. To John's left, Peter Lennie-Misgeld, senior regulatory officer for the board and by the door, Wanda Anderson, manager of finance and admin for the board. As I said earlier we'll be breaking for supper between 4:00 p.m. and 6:00 p.m. and taking appropriate rest breaks during the day as needed. There's coffee and refreshments at the back of the room, at the side, so please help yourself. Before we proceed with the presentation by the town of Hay River I'd like to

ask the spokespersons for the registered interveners, as well as the proponent, to identify themselves for the record. First we'll start with the town of Hay River.

Ron Kruhlak: Thank you, Mr. Chairman. My name is Ron Kruhlak. I'm a lawyer acting for the town in this matter from the firm of McLennan Ross. Immediately next to me is Brad Chapman. Brad is project manager with Hasco Environmental and on my far right is Todd Pittman and Todd is director of Public Works for the town of Hay River.

Chairman: Thank you, Mr. Kruhlak. Registered interveners, is there a representative from the Katlodeeche First Nation? Please come forward to the microphone.

Rosaline Tambour: Hello. Rosaline Tambour, Katlodeeche First Nation. Doreen Tambour who's a councillor for the Katlodeeche First Nation. Kelly Pennycook Deh Cho First Nation, he's here on behalf of KFN. Elder Daniel Sonfrere and his assistant who is Elaine Salopree is here on behalf of Katlodeeche First Nation. And just to point out to you on your agenda you have you have Katlodeeche misspelled. It should have an "L" in there. K-A-T-L-O-D-E-E-C-H-E. Thank you.

Chairman: Thanks very much, Ms. Tambour. My apologies. I think we took that spelling from letterhead we received from the KFN. So we might have carried over a typo but our apologies for that. Do we have a representative from the GNWT RWED Department?

Harvey Gaukel: Harvey Gaukel with Environmental Protection Service, Department of Resources, Wildlife and Economic Development, Government of the Northwest Territories. My position is hazardous substance specialist.

Chairman: Thank you, Mr. Gaukel. Those are the only 2 registered interveners we have. If there are other members of the public who would like to speak I'll ask you to please register yourselves with Wanda Anderson at the door so that we can get your name on record and what party or interest group you're representing.

In closing, the board has had no notice of any preliminary issues as required under our Rules of Procedure so we are prepared to proceed with the town of Hay River. Mr. Kruhlak, when you're ready.

Ron Kruhlak: Yes, Mr. Chairman, I can make a few opening remarks. I guess I'd like to introduce this project as being one of good environmental stewardship. The town recognises there is a current need for an appropriate treatment pad or land farming pad. They have a current situation that they face where there are contaminated sites which are not currently being remediated within the town boundaries as well as land farming or treatment pads actually operating in the town to which would not be, I guess, the same degree of diligence may be applied as this proposed pad operation. The town has passed a by-law prohibiting further new landfill, or, sorry, treatment pads to operate but in doing so recognised they had to have a place to otherwise have contaminated soils treated. You'll hear from Mr. Pittman, the director of Public Works about how the town

dealt with that situation and the degree of search they did in finding a suitable company to assist them and provide the knowledge and experience to have a pad constructed and operated. And the company they selected was Hasco Environmental Services Ltd. And Brad Chapman, you'll hear from as project manager, will talk about how a pad like this that needs to be constructed and operated in order to properly and safely treat soil. And I'd just add that the reason that this pad is where it is, is because it's sensible that after soil is treated and meets the requirements it can then be used as cover immediately next to the landfill. So you have an already disturbed area selected, you have a proper source of material that needs to be dealt with and you have the end result of the material once it achieves its level of remediation to be placed as cover on the landfill cell which requires cover material for its ongoing operation as well as for its eventual closing.

So those would be the 2 gentlemen speaking to the matters here and in that order. And I trust we'll have opening statements from other parties before we start with their evidence, is that fair, Mr. Chairman?

Chairman: Thank you, Mr. Kruhlak. We'll start with opening statements from the town of Hay River. Opening statements from other registered interveners will come following questions based on the town's presentation.

Ron Kruhlak: Okay, then I'll turn it over to Mr. Pittman, my far right here.

Todd Pittman: Again, Mr. Chairman, my name is Todd Pittman. I'm the director of Public Works for the town of Hay River. The focus of my presentation will be to give background as to why the Council of the town of Hay River decided to proceed with the development of this project. And prior to getting into the particulars of the treatment pad I'd like to pass on some relevant statistics to everyone here. NTCL moves 90 million litres of fuel through this town each year. Rail America will move approximately 410 million litres of petroleum products in the Hay River this year. The Esso Bulk facility moves 300 million litres of fuel through their facility each year. The Petro-Canada bulk plant moves 70 million litres of fuel through their facility each year. Bassett Petroleum moves 45 million and approximately 20 million litres are trucked into the NWT to points in the South Slave and Yellowknife each year. In simpler terms this means 3,675 train carloads of fuel, 6,400 B train truck loads of fuel and approximately 60 barge loads of fuel. Hay River supplies fuel to the north and with increased development these numbers will continue to increase. An unfortunate result of these activities is petroleum spills and a result in contamination of soil and water. I would like to again pass on some relevant statistics. These numbers are passed on to me by the GNWT RWED spill line. In 2001 there were 385 reported spills in the NWT. In 2002 that increased to 611. In 2003 that increased to 779. To date in 2004 we have 562 and maintaining that rate will be more than 800 spills reported this year.

The numbers outline the increase in spills we are seeing through increase in economic activity. An activity which shows no signs of slowing down. To date there has been basically 3 options for the treatment of contaminated soil and these are as follows: land

farm the soil where space permits and at present we have approximately 3 sites in town from what I understand. Transport the soil to treatment facilities in the south and the third option is to do nothing. The most popular method of treatment in the Hay River has been to land farm contaminated soil. There are at present, and I'd like to change this 2 to 3, another one came to my attention today, land farming operations in Hay River. And although all indications are that these facilities are operating successfully they appear to lack the environmental controls incorporated into those facility proposed under this amendment. Specifically in terms of maundering runoff collection and treatment and the level of supervision these sites receive. With discussions of more of these facilities being established in Hay River the Council of the town of Hay River decided that the present situation in terms of treatment of contaminated soil was unacceptable. And Council took steps through by-law amendments to end the practice of land farming within the town of Hay River. Although, before this could be done the town had to present a suitable option. And without another alternative it was felt that there would be a tendency not to properly address the issue of contaminated soil and clean up.

The town made investigations as to how other municipalities were dealing with this type of problem. The town learned that properly constructed and managed treatment pads would be an effective solution and provide needed cover material for the landfill. The town learned that Hasco Environmental Services Ltd. was actively involved in the construction and operation of such facilities in partnerships with municipalities. This is when the town of Hay River entered into negotiations with Hasco to provide bio-treatment services for petroleum contaminated soil. The goal of this facility would be twofold: promote the timely clean up of contamination resulting from spills by providing an economic and environmentally sound treatment option and to utilize the treated material to improve the operation of the existing landfill and begin close out of the existing site. Hasco presented a facility that met these criteria. The technical aspects of the construction of the pad and operation will be addressed by Mr. Chapman in his presentation.

It should be noted that prior to entering into any arrangement with Hasco, a thorough investigation was conducted. All the municipalities with which Hasco has developed facilities were interviewed as well as the Departments of Environment of Alberta and British Columbia. All indications were that these facilities were well managed and had not received any regulatory action in terms of contravention of any environmental legislation. The primary concerns outlined during this amendment process have been focussed on the proximity to the Hay River and whether this is the most appropriate site. I would assert that proximity is only an issue if proper management and environmental controls are not in place. This facility has been engineered to the highest standards and will be managed to the highest standards as dictated by regulatory agencies. The present site as dictated by our present water license has among the strictest surveillance requirements of any landfill in the north. We will, as part of our annual report, provide a complete summary of this operation including copies of all analytical data. And it is my understanding that this information is open to the public.

As can be seen from the material on the application file, the issue of this treatment pad has been well publicised in local newspapers and publicly reviewed at Council meetings. We have received overwhelming support from many people and both the territorial and federal governments acknowledge this is a good environmental project. We have closely studied the comments of the Katlodeeche First Nations and are pleased they have viewed this facility as environmentally safe freestanding site provided proper management is in place. We believe we have found the right partner to ensure this site is properly managed and we will be reviewing all aspects of its operation to ensure this.

Finally, the town of Hay River did not enter into this lightly. We recognised the value of the integrity of our environment, in particular, Hay River. Many aspect of our lives, the quality of our drinking water, the fish we serve our families and the beach that our children play on depend on this river's water being safe and clean.

Thank you very much.

Ron Kruhlak: Thank you, Mr. Pittman. Next would be Mr. Chapman and he has a PowerPoint presentation to assist in his presentation. I'd ask that prior to commencing his presentation he give a bit of a description as to his responsibilities on this project as well as some of his past experience.

Brad Chapman: Good afternoon, Mr. Chairman, fellow board members and guests. My name is Brad Chapman, I'm with the company called Hasco Environmental Services. Hasco Environmental Services owns Waste Works Incorporated. And Waste Works Incorporated is our facility company so when you hear or see Waste Works it's a company that's owned by Hasco and pretty much all of our, all of my presentation will have Hasco on it but Waste Works is the entity that is in legal partnership with the town of Hay River for this facility.

My background in environmental remediation dates back for 10 years and I work at Hasco Environmental Services as a project manager in charge of all our mediation projects in Alberta at our facilities and in northern British Columbia and as well at the Hay River treatment facility. As my duties as project manager I'm responsible for all aspects of the operation of the facility, all technical components to do with remediation of the soils and I'm the main liaison with the town of Hay River in terms of what we do to close off a particular project after we've treated soils to the existing government criteria. At this point, or at that point when we've treated soils to the CCME criteria for industrial standards it is then to be released to the town of Hay River and then the town of Hay River uses it to cover garbage at their existing landfill location. As it was pointed out earlier this is a great synergy between private and public entities because there is definitely a need, as Mr. Pittman pointed out, to deal with contaminated soils in the Hay River area. As well, there's a definite need to cover garbage at existing municipal solid waste facility in a timely fashion to prevent any sort of nuisance vectors from getting into the garbage.

At this point I'm going to proceed with my presentation. Hasco Environmental Services and our wholly owned subsidiary Waste Works Incorporated are involved in either partnerships with municipalities or stand alone operations of our own or facilities that we manage for oil and gas firms. And presently we have industrial waste management facilities at the following locations: Peace River, Alberta, Spirit River, Alberta, Brookes, Alberta, Medicine Hat, Alberta, Pincher Creek, Alberta, at the Shell Waterton Gas Plant near Pincher Creek, Alberta, at the Shell Midale Facility in Midale, Saskatchewan and in Verdon, Manitoba. We also have industrial waste management facilities at Richmond British Columbia, Courtney, British Columbia, Port McNeil, British Columbia, Colona British Columbia, 100 Mile House, British Columbia and 5 other locations in western Canada. The reason I didn't mention the other locations is I wanted to keep my presentation fairly brief but I think everyone can see that Hasco Environmental Services has been in this business for some time and we do manage numerous facilities throughout our western Canada market place.

At the Hay River treatment facility we'll be using some standard technology to deal with hydrocarbon contaminated soils. Bioremediation is a natural process where indigenous micro organisms found in the soil degrade hydrocarbon in hydrocarbon contaminated soils. It is a well documented technology that's been used for the last 25 years in western Canada and it involves using different types of equipment to achieve these treatment objectives. And what you see on this particular slide is an excavator turning soil at our Richmond bioremediation facility in the lower mainland of British Columbia. And, essentially, what is going on here is that excavator operator has parked his machine on top of a contaminated soil windrow or bio-pile and is picking up the soil and lifting it up and allowing to drop down to form a new windrow. And what happens during this process is some of the light ends in the hydrocarbon contamination will flash off and the rest of the material would be treated through the micro organisms. This is a standard treatment methodology.

Another type of technology we use at our facilities, specifically at land farms where contaminate soil is put down in thin lifts on a treatment pad, so we use a self powered rota tiller, and in this case it's a 300 hp self powered rota tiller being pulled by a 4 wheel drive tractor, and that machine works the soil, again, aerating the soil and mixing it up and allowing the microbes to get more air to continue with the degradation of hydrocarbon contamination.

At some of our locations we use this very specific piece of equipment called a scarab windrow turner and this machine is used for treating very large volumes of contaminated soil. It has a 460 hp diesel engine mounted behind the cab and that power plant runs a hydraulic system which powers a 18 foot wide drum with 72 teeth on it which turns at 600 rpm. This machine will straddle a windrow or bio-pile of contaminated soil and travel through it at approximately 500 tonnes an hour. And as it's travelling through it it aerates the soil adding more oxygen to the soil to aid in the bioremediation. And plus it mixes everything up, all those clumps of dirt you see there turn into fine soil after the machine's passed through it.

And this is another one of the technologies that Hasco employs for doing remedial work. One of the lines of work that Hasco does is cleaning up landfills at various industrial facilities throughout western Canada. Specifically we go into a lot of oil and gas plants where they, in the past, just buried industrial waste behind the plant. They haven't been putting, traditionally these waste pits haven't been lined. In this day and age a lot of companies now want to make sure that their waste is well managed so we, quite often, will go in with this type of equipment and clean up the old landfills and then put all of the waste from the old landfills into a new state of the art lined facility that the oil company would have us manage for them.

This slide is somewhat difficult to read. Specifically the page there that says Waste Works on top. I'm going to talk about our waste approval process though we call this our waste approval application or a WAA for short and a WAA accompanies every project that goes into one of our facilities. And each WAA is numbered so it has a unique identification. Section 1 deals with the information about the generator or the waste. Section 2 deals with special handling required for the waste. Section 3 itemizes the physical and chemical properties of the waste. And in section 3 we would determine whether or not this material is suitable for treatment or suitable for other disposal means.

Page 2 of the WAA document has section 4 and in section 4 we identify the waste by its provincial or federal classification. Section 5 lists all the analytical reports or the material safety data sheets and generator letters associated with that waste. Section 6 is the generator ascertainment that the sample that they've submitted for analytical classification is, in fact, representative of the waste being offered for disposal. And I should just point out that in section 6 the waste generator signs off saying that the waste they're sending to our facility is, in fact, the waste that we're receiving. Section 7 is the generator certification that everything in the WAA is true and accurate. And then finally, section 8 is Waste Works' approval. So we have a very detailed administrative process that we do in our office when a generator wants to send waste to one of our facilities and this is the practise that we are following at the Hay River Treatment Facility as well. So prior to any waste coming into a Hasco or Waste Works facility the waste generator must create or give us all of the information required on this WAA and they must sign off to certify that is, in fact, accurate and that is the waste that they're sending to us. We then have specialists in our Calgary office who review the WAA information and all supporting analytical and before we put an approval signature in section 8 on any WAA it has to meet the inspection of our waste specialists.

This is a bit of flowchart just showing how the waste acceptance and approval procedure works. Again, it has to do with all the sections from our waste approval application or WAA. And then after the WAA is filled out it goes to the Waste Works approvals group. If all of the information in it is correct and accurate a waste decision is made whether or not we will take the waste and when we make the decision that we feel we can take the waste, in the case of the Hay River bio-treatment pad, we then talk to the town of Hay River, we let them know what the material is and then the town of Hay River has the final say as to whether or not this waste will come into the facility.

Once the application is approved then we generate waste manifests or dockets which every truck or every vehicle that brings waste into one of our facilities is accompanied by a manifest. If our partner, the town of Hay River, chooses not to take this waste then we advise the customer that the waste is not suitable for disposal or treatment at the Hay River Facility.

This is a copy of the waste manifest or waste docket as we now call it. Every load of waste offered for disposal, and in this case treatment, is accompanied by one of these documents. Each document must be signed by the generator, the transporter and by the facility that receives it. In this case the Hay River Treatment Facility. An approval code is issued for each project. A waste description, generating location and generator must match the information on the waste approval application. So, we have personnel at our facilities that compare all the information from this waste manifest or waste docket with the waste approval application to ensure the waste coming into the facility is, in fact, the same waste that was approved. Copies of these documents are distributed to the generator, the transporter, we keep them on file and we send copies to the town.

All staff working at the Hay River Treatment Facility are trained in the Transportation of Dangerous Goods or commonly called TDG. And the Transportation of Dangerous Goods is training in how to recognise various types of contamination, figure out if material is suitable for receipt and treatment. They're also trained in Work Place Materials Hazard Information System or commonly called WHMIS. And that is a training program to educate workers as to how to interpret material data safety sheets and other documents associated with contamination. And our staff have basic First Aid.

In conclusion I'd like to point out to everyone that Hasco and Waste Works do not take this business lightly. Every project that we handle we scrutinize carefully. Every load that comes in has its own manifest or waste docket with it and at the end of every project we compare all the manifests and ensure that all the paper matches up so every project is deemed administratively complete at the end. So we're not taking waste that we don't know the chemical characteristics of. And once the waste is at the facility then we determine what sort of treatment operation or protocol will follow and then proceed with the treatment program.

Thank you very much.

Ron Kruhlak: Mr. Chapman, Mr. Chairman, I just have a couple more questions for Mr. Chapman to speak to. It's in response to, I think, one of the later letters we received from the registered intervener, the Katlodeeche First Nation had a concern expressed possible about odours in relation to this type of facility. Mr. Chapman, do you have any comment on what type of concern that would be for the operation of a treatment pad?

Brad Chapman: During the remediation of hydrocarbon contaminated soils there are very localised odour issues that would take place right on the treatment pad. It wouldn't

be much different than when you fuel up your vehicle at a gas station while you were operating the gas pump, filling up your tank you can smell a bit of petroleum product but that odour does not leave the site and the same as at the treatment facility. While the equipment is turning the soil there is some odour, but again, it doesn't leave the site.

Ron Kruhlak: It's Ron Kruhlak again, Mr. Chairman. And Mr. Chapman, I take it this being located next to an operating waste treatment site wouldn't be noticed or do you have an opinion on whether you'd notice it having regard to the operation of the existing site?

Chairman: Mr. Chapman, sorry to interrupt. I'll just remind you to please introduce yourself prior to speaking each time, thank you.

Brad Chapman: Brad Chapman with Hasco. Mr. Kruhlak, I have been at the facility and the odour from just the garbage management is clearly greater than the odour from any treatment operation at the treatment pad.

Ron Kruhlak: It's Ron Kruhlak once again for the town. You described the forms in detail, Mr. Chapman, I'm just wondering if you could just give us a very generalized description of this waste coming in. What would be wastes that would not be appropriate for land farming, what you might receive from a generator? If you could just elaborate on that slightly.

Brad Chapman: Brad Chapman. Well, we wouldn't take salt contaminated wastes from exploration and production activity from the oil and gas industry. Salt contaminated waste are not suitable for bioremediation treatment. Waste that are contaminated with heavy metals wouldn't be received. Presently bioremediation isn't suitable for heavy metal contamination. Any sort of biomedical waste would not be received for treatment and anything that would fall just outside of the parameters of a bioremediation treatment program wouldn't be received. So just going further into the type of soils that we would take, primarily, the type of soils would be petroleum, hydrocarbon contaminated soils from fuel spills or from underground tank cleanups and also perhaps, light crude contaminated soil from spills from local oil and gas exploration activity. Again, all suitable for bioremediation treatment.

Ron Kruhlak: And, Ron Kruhlak, I think one last time to ask Mr. Pittman who I forgot to have address just briefly some of his background which I thought would be of assistance to the board because, as Mr. Chapman indicated, the town also has the ultimate review as well once it meets or passes Hasco's people in analyzing the waste whether it's suitable, the town can also accept it or have it rejected. And, Mr. Pittman, since that lands on your lap, could you just briefly describe some of your background and experience to the board as we close up Hay River's evidence right now?

Todd Pittman: Todd Pittman, town of Hay River. As Mr. Chapman outlined, the town is responsible for the final sign off of any waste that would enter the bio-treatment

pad and that responsibility is mine. Prior to coming to work for the town of Hay River I worked for consulting firms and I spent 3 years in the US working for an environmental services firm. During my tenure in the US I dealt extensively with contaminated sites, primarily hydrocarbon contaminated sites and the aggregate total of contaminated soil was probably in the order of a quarter of a million tonnes moved under all these separate programs. The clients I dealt with were the US Coast Guard, Boston University, Bell Atlantic 9x, so, I do have extensive knowledge of treatment of hydrocarbon contaminated soil, disposal of hydrocarbon contaminated soil, diphase assessments. I don't know what I could add to that.

Ron Kruhlak: It's Ron Kruhlak. Mr. Chairman, I think that concludes the initial presentation for the town of Hay River.

Chairman: Thank you, Mr. Kruhlak. I'll now call for questions of the town based on the presentation. I'll start first with the registered interveners. Are there questions for the town from KFN?

Kelly Pennycook: Kelly Pennycook from the Katlodeeche First Nation. I was wondering about your runoff collection method, you guys listed 4 of them. Have you guys selected one and has there been any proven tested record on them?

Brad Chapman: Brad Chapman with Hasco. We only have one runoff collection system and that is the treatment pad is grated and all surface water drains into a lined pond. And right now we're using evaporation to deal with that water. And if we ever have a heavy rain event and we have to deal with more water we sample the water and test it for parameters suitable for pump off or for off site disposal. Was that your question, sir?

Kelly Pennycook: Yes. Also, you said that the Katlodeeche approved the freestanding project. It was my interpretation that was fairly, yeah section 2, they also listed a whole bunch of concerns. I believe that was more of a typo than anything.

Unknown Male: Sorry, Mr Pennycook, that's a question? Could you restate the question just for clarity sake?

Kelly Pennycook: I just wanted to let you know that the Katlodeeche did not approve the facility like you said in your opening statement.

Chairman: Thank you, Mr. Pennycook. Mr.Kruhlak.

Ron Kruhlak: Yes, Mr. Chairman, Ron Kruhlak. I think what Mr. Pittman referred to is the Katlodeeche First Nation letter of August 3rd, 2004, its paragraph number 2 indicated, "The treatment facility appears to be environmentally safe as a freestanding site as long as it is properly managed on an ongoing basis, (except for its proximity to the river as noted below)". I think Mr. Pittman was referring to the fact that it appears

there's recognition for this type of facility subject to management practices and its operation.

Kelly Pennycook: That's correct, they're just worried about the management practise, actually.

Chairman: Mr. Pennycook, sorry to interrupt. I'd just ask you to please state your name prior to each question. Thank you.

Rosaline Tambour: Rosaline Tambour, Katlodeeche First Nation. We do actually have quite a few questions we do want to ask you. The first one is that we would like to know what is the town of Hay River's definition of a working relationship with the Katlodeeche First Nation, specifically in terms of consultation with our community?

Chairman: Thank you, Ms. Tambour. Mr. Kruhlak.

Ron Kruhlak: Are you referring to something specifically, it's Ron Kruhlak, to refer us to?

Rosaline Tambour: Well, in reference to questions that are in the application we notice that it does not state only the closest property would be affected. Aside from the Government of the Northwest Territories we were wondering who else did you confer with from surrounding properties and specifically, why did the town of Hay River feel that Katlodeeche would not be affected by this undertaking?

Chairman: Mr. Kruhlak.

Todd Pittman: Todd Pittman, town of Hay River. In our application we chose to poll property owners directly abutting the landfill property. There was one property identified directly abutting that parcel identified. That was a GNWT site.

Chairman: Thank you, Mr. Pittman. Ms. Tambour, Mr. Pennycook, follow questions?

Rosaline Tambour: With respect to the letter that was issued to you on August 3rd, going down to the closing paragraph with that given these concerns that the KFN is hereby requesting a public hearing to be held on the Hay River Dene Reserve they do note, or we do note that we are an independent and distinct community and are not an extension of the town of Hay River. We must also note that the proposed facility is on our traditional lands and immediately up river from our community. So once again the question is, you know, we're wondering why KFN was not included in the application when there was just reference just to the GNWT?

Chairman: Thank you, Ms. Tambour. Mr. Kruhlak.

Ron Kruhlak: Thank you, Mr. Chairman. It's Ron Kruhlak. I would simply indicate that I'm aware from the application record that the town of Hay River did indicate or write a letter directly to the chief of the Katlodeeche First Nation on April 16th, 2004 to describe the project and invite any questions. And it would be my further understanding that there were meetings between the author of that letter being the Mayor of Hay River and the Chief and I'm not aware of any issues, at least that have been brought to our attention, have been raised prior to these most recent letters from the KFN.

Chairman: Thank you, Mr. Kruhlak. Ms. Tambour.

Rosaline Tambour: Just in response to that I believe the deadline for submissions was in August, was it not? What was the deadline for that?

Ron Kruhlak: I think it was August 16th. I'll just confirm that. Yeah, the interventions from reviewers were due on the 16th of August. The town had until the 20th of August to respond.

Rosaline Tambour: Okay, so, from KFN's perspective we were able to submit our letter on August 3rd. It may have been a timely matter on our end but we feel that we have submitted a proper inquiry in a timely fashion within the deadline.

Chairman: Mr. Pittman, do you have a response?

Todd Pittman: I don't know if there was a misunderstanding of dates but you had asked why the Katlodeeche First Nation wasn't consulted and I think Mr. Kruhlak just referenced a letter dating back to April before this process that the Katlodeeche First Nation was asked to give comments.

Rosaline Tambour: Okay, fair enough. Rosaline Tambour. Just referring back to that letter dated August 3rd we did request a public hearing with our community. Thank you.

Chairman: Thank you, Ms. Tambour. Any further questions? Mr. Pennycook.

Kelly Pennycook: Kelly Pennycook, Katlodeeche First Nation. Were you aware that the GNWT complex was on the Katlodeeche First Nation Reservation lands?

Chairman: Mr. Pittman.

Todd Pittman: Are you referring to the salt shed on the...

Kelly Pennycook: No, I'm...

Todd Pittman: ...west side of the river?

Kelly Pennycook: I was referring to forest development.

Todd Pittman: Todd Pittman, town of Hay River. The GNWT facility referred to is the facility owned by the Department of Transportation. It's on the west bank of the Hay River adjacent to the bridge.

Kelly Pennycook: Okay, so you're not talking about the complex on the east side then?

Todd Pittman: Todd Pittman. No, sir, I'm not.

Kelly Pennycook: Kelly Pennycook, Katlodeeche First Nation. Was there any cumulative effects for this pad at the existing dump taken into consideration for the area?

Chairman: Mr. Chapman.

Brad Chapman: Brad Chapman with Hasco. Yeah, we did take in the cumulative effects of the pad and we have, in our entire project, planned on the decommissioning of the pad at some point. And at this point we're looking at a 10 year life of this treatment pad. And our decommissioning program is outlined in our operations plan and after we've treated the soils down to CCME criteria for industrial soil it would be used to cover municipal solid waste or garbage at the landfill. And after the pad is decommissioned and no waste would be brought to it anymore the clay from the pad would be tested and if there is contamination not suitable for treatment on the pad it would be trucked to a facility south in Alberta. And then the rest of the clay used for the pad would be used to cap municipal solid waste cells within the garbage facility.

Chairman: Thank you, Mr. Chapman. Mr. Pennycook.

Kelly Pennycook: Kelly Pennycook, Katlodeeche First Nation. The landfill site has been established for 30-some years now and many animals and birds have grown accustomed to the site and there's no fence or any partition keeping them out of there. Has there been any measures taken or safety precautions exist for such animals such as the bears and ravens?

Brad Chapman: Brad Chapman, Hasco. We have put up a perimeter fence around our treatment pad retention pond which would be the only part of the facility that would cause trouble to bears or ungulates or any other wildlife. So, the pond which manages all of the fluid runoff from snow melt or rainfall is completely fenced and signed.

Chairman: Thank you, Mr. Chapman. Mr. Pennycook.

Kelly Pennycook: That's it for me.

Chairman: Ms. Tambour. Thanks very much. The next registered intervener is GNWT RWED, do you have any questions for the town? Mr. Gaukel, thank you. No questions from GNWT. Are there any questions from, we have no registered speakers. Are there any questions from members of the public? Please come forward, sir, to the microphone. Again, I'd just ask you to state your name prior to speaking. I'm afraid you have to hold down the button on the microphone while you speak.

Frederick Beaulieu: Sorry, Frederick Beaulieu from the Métis Nation. I was wondering how come that we haven't heard anything about this and we weren't notified that this is being held? Only through the public. I was wondering why the Métis Nation's office wasn't informed?

Chairman: Thank you, Mr. Beaulieu. Just for clarification, are you referring to this hearing or the construction of the treatment pad?

Frederick Beaulieu: The hearing. Or both of them.

Chairman: Okay, well, I'll speak to the hearing and I'll as the town of Hay River to speak to the construction of the treatment pad. Our legislation requires us to advertise the hearing within a specified period prior to conducting the hearing and we did that in the local and territorial paper. That is the standard form that we use or format that we use to notify the public of any hearing that our board conducts. And so I guess our expectation would be that would be the form of notification the we would provide for the hearing. Beyond that I'm not sure what I can offer you. I'll ask the town to speak about the construction of the bio-treatment pad if you're looking for information regarding the communication of it's construction. Mr. Kruhlak or Mr. Pittman.

Todd Pittman: Thank you, Mr. Chairman. Todd Pittman, town of Hay River. I think, Mr. Chairman, yourself you outlined that there was some misunderstandings with regard to jurisdiction and that's why this pad was constructed and this process wasn't initiated until after the fact. With Regard to the Métis Nation, I think the Métis Nation was given a copy of the amendment in the spring. I think there is a return correspondence from the Métis Nation...

Break in Recording

Todd Pittman: The distribution list of asking for intervention the Métis Nation was also included there.

Frederick Beaulieu: All the papers I was reading there was not once the Métis Nation was mentioned. That's the reason I brought it up, thank you.

Chairman: Thank you, Mr. Beaulieu. Are there any other questions from members of the public for the town of Hay River? No questions. I'll ask for opening statements then from registered interveners. We'll start first with the, oh, my apologies. Questions from

the staff and the board. Prior to that we'll ask the members of the staff and counsel if they have questions for the town of Hay River. Mr. Paradis.

Adrian Paradis: Adrian Paradis with the Land and Water Board. I just have a few questions for you. What I have is, I guess, a more very technical or more, I just want to know for the monitoring requirements, what is the general depth of the ground water and the general flow pattern on the site and which direction does it go?

Todd Pittman: Mr. Chairman, there is a ground water profile that was generated from previous investigations. Unfortunately I don't have it right here now but I can bring it back to the board.

Chairman: Thank you, Mr. Pittman. We'll note that as undertaking Number 1. Can you give us an idea when you could return to the board with that information, please, Mr. Pittman.

Todd Pittman: Mr. Chairman, once I get back to my office I should be able to pull that information out and probably have it tomorrow morning.

Chairman: Great, thank you. Any further questions from Mr. Paradis.

Adrian Paradis: You mentioned the cleanup criteria you're hoping to do is the CCME criteria for industrial projects. That is the F1 F4 fractions?

Brad Chapman: Brad Chapman with Hasco. Yes. You're correct, sir.

Adrian Paradis: So for that one, Adrian Paradis, Land and Water Board. When you're doing that it's going to be the combined criteria so F1 + F2 + F3 +F4 equals your final cleanup criteria?

Brad Chapman: Brad Chapman with Hasco. Yes, that's correct.

Adrian Paradis: Adrian Paradis, Land and Water Board, again. The waste doc that you're going to be creating for each round of contaminated material that comes in, contaminated soil, how long do you maintain that on file?

Brad Chapman: Brad Chapman with Hasco. We keep all those records for a minimum of 2 years on file. So we'll have records at the facility and plus at our office in Calgary and the town will have copies at their office in the town of Hay River.

Adrian Paradis: Adrian Paradis, Land and Water Board. Material that will be brought in will have to meet the definition of soil. Can you please explain that for those that might not have a technical background what that definition includes?

Brad Chapman: Brad Chapman with Hasco. The standard definition for receiving waste into a waste management facility that takes solids is the paint filter test. It's an

Environmental Protection Agency protocol and it's a basic test that determines whether or not a matrix will generate any liquid during a 5-minute test. And if the test is a pass then it's deemed to be a solid, in this case, soil.

Chairman: Sorry, I'm just going to intervene for a minute, Mr. Chapman, for the benefit of those of us who are perhaps a bit less technical could you boil that answer down a little further for us, please.

Brad Chapman: My apologies, Mr. Chairman. It's Brad Chapman with Hasco. I just need a minute to kind of put this together, if I may.

Chairman: Sure.

Brad Chapman: It's Brad Chapman again. I think I have the answer. Soil is a solid matrix. In other words, we're not taking liquid waste into the facility and the paint filter test that I referred to earlier is the standard test that is used if a material is considered to be a borderline we employ the paint filter test when we're taking in sludge type material to determine if it will pass the paint filter. If it does pass then it is suitable for receipt at the facility, if it fails then it's not suitable.

Adrian Paradis: Adrian Paradis, Land and Water Board. So I guess the quick answer would be that it does not look like mud with oil sitting there in it?

Brad Chapman: Brad Chapman here. Yes, that's correct.

Adrian Paradis: Adrian Paradis. I just have one more question for the board. For the bio-treatment pad you're going to be treating for light and crudes. Again, I'm looking for like another definition of what a light and crude would be for those non-technical.

Brad Chapman: Brad Chapman, Hasco. Well, it would be a light crude oil and a light crude oil would be a crude oil that exhibits chemical characteristics. That means that it is more like a fuel oil than a heavy crude. And what we do is look at the analytical accompanying the waste approval application and we request that the fractionated hydrocarbons or the F1 to F4 analysis be included and if the F4 component of the analytical is beyond what we deem to be a treatable limit we don't accept it.

Adrian Paradis: So that would rule out waxes, asphalts, things of that nature, the heavy dense material? It would be more on the gasoline, diesels, glycol sort of range?

Brad Chapman: Brad Chapman, Hasco. Yes, that's correct. Any asphaltines, waxy residues, that kind of material that exhibits a very high F4 fractions in the chemical analysis would not be suitable for treatment and not be received at the facility.

Adrian Paradis: Thank you. Adrian Paradis.

Chairman: Thank you, Mr. Paradis. Mr. Lennie-Misgeld.

Peter Lennie-Misgeld: Hi, Peter Lennie-Misgeld, board staff. I'm just, through your presentation before with your waste approvals kind of process there, I'm just curious to know before the waste is accepted into the facility, what is the method for sampling a soil and where is it analysed?

Brad Chapman: Brad Chapman, Hasco. The standard methodology for sampling soil is a composite sampling method where numerous grab samples are made throughout the waste area and then put into a container and then a single sample or numerous samples from that container would then go to an approved laboratory. And we only recognize analytical chemical analysis from CAEAL approved laboratories or Canadian Association of Environmental Analytic Laboratories.

Chairman: Thank you, Mr. Chapman. Mr. Lennie-Misgeld.

Peter Lennie-Misgeld: Peter Lennie-Misgeld again. I just want to clarify, so there is kind of a lag time, I suppose, between when, while that sampling is ongoing you get the results and then it goes into a facility, is that correct?

Brad Chapman: Brad Chapman with Hasco. Normally we don't receive waste from a project until the waste has been properly identified through a site investigation of some sort, either drilling cores from a subterranean contaminant or samples from an excavated project. And you're right, those samples would go to a CAEAL approved lab and there is a lag time although the lag time does vary depending on how urgent it is to clean up the project. Sometimes our customers will have an emergency rush done on the samples and pay a surcharge. And turn around time can be as quick as 48 hour.

Peter Lennie-Misgeld: Peter Lennie-Misgeld again. Yeah, we just wanted, the reason I'm asking the question is just to confirm that something doesn't slip through the crack so to speak that, you know, waste gets deposited in the facility prior to you getting those results back from the lab.

Brad Chapman: Could you clarify that, please.

Peter Lennie-Misgeld: The reason why I asked the question was just we want, I'm just curious to know that a process is in place to prevent any waste from being, going into the landfill prior to you having the results back confirming what the waste is and that it's not some kind of waste that you don't accept for that facility.

Brad Chapman: Brad Chapman with Hasco. Yeah, we do have several safeguards in the operation to ensure that the waste coming to the facility is, in fact, the waste that's identified in the waste approval application. The primary measure to ensure that the waste, in fact, is what is stated on the WAA is the laboratory analysis. The second or secondary measure that we employ is our staff on the ground at the facility who are there when waste is unloaded. They physically inspect the waste and if the waste does not meet the characterization in the waste approval application then the project is

temporarily stopped until we get further clarification. And the tertiary system for catching non-approved waste is in our follow up sampling of the waste. What this means is after the waste comes in we sample it at the facility and send it off for further analysis to ensure that the waste does, in fact, meet the chemical characteristics from the approval analysis.

Peter Lennie-Misgeld: Peter Lennie-Misgeld, board staff. One final question, just curious to know in the event that a problem is encountered and you do have some waste that you don't accept, where would it go at that point?

Brad Chapman: Brad Chapman with Hasco. A very good question, Mr. Chair. When waste does come in that doesn't meet the characteristics on the waste approval application it then becomes the responsibility of the waste generator to deal with it. At that point Hasco usually looks after lining up the loading, the trucking and we find a suitable waste facility in another jurisdiction that can handle this waste and move it off location as soon as possible. And we also notify the regulatory agencies who've issued the permit to let them know what we're doing.

Chairman: Thank you, Mr. Chapman. Any questions from counsel? Questions from the board, Mr. Van Camp? No questions. Ms. Stewart? Joy Stewart.

Joy Stewart: Joy Stewart, board member. Mr. Chapman, I just want to confirm what I think I heard you say and that was that normally the test results are back on the product prior to it coming into a landfill. Normally was the word that caught me. Is it 100 percent tested, the results are in before the landfill accepts product or is it normally?

Brad Chapman: Brad Chapman with Hasco. Mr. Chairman, another good question and the reason I said normally is normal projects where the waste generator is doing a remediation of a site or a spill and there's no emergency involved we always look for the chemical analysis prior to receiving the waste. There is the odd occasion when there is a spill on a public roadway or near a river and if we're instructed by the regulatory agency in jurisdiction to clean this up immediately because there'll be an environmental disaster if it gets into a river, a water course, something along those nature, we will take it in under an emergency approval. But those are very rare and we only do it when we're instructed so by the regulatory agency in jurisdiction.

Joy Stewart: Thank you. Joy Stewart, board member. Mr. Pittman, can you please tell us how and when the town of Hay River consulted with the actual people of Hay River and of the surrounding area?

Todd Pittman: As part of my application there was a public notification list there. In that list I included each council meeting where it's advertised and televised in the town of Hay River where this issue was discussed. I also included each time that any material related to this project was publicized in the local newspaper. And I might add through all that, I think there was one phone call with questions regarding this facility.

Joy Stewart: Joy Stewart, board member. I guess, Mr. Pittman, I'm looking for, I've read the mention of the town Council meetings and of reports in various newspapers and what I take from what I see is that information on what was happening, like, where the project was at is there but I'm wondering if prior to the project being started or in the middle of it or where it was at, if there was meetings of the public so that the town could explain the project and have actual citizens of Hay River and the surrounding area have questions or concerns about it at that time? Thank you.

Todd Pittman: Todd Pittman, town of Hay River. There was no specific meetings organized although our Council meetings, as you're probably aware, are open meetings. Anyone with any concerns can apply to Council, appear before Council and bring up their concerns. Nobody applied and, like I said, this was well publicized throughout the community.

Chairman: Thank you, Mr. Pittman. That concludes the questions from the board and the board staff. I'd like to take a 10 minute break and we will come back after the break with opening statements from the registered interveners. Following that we can move into presentations from the registered interveners. Right before we break I'd just like to remind those present we do have food and refreshments at a table on the side and it doesn't look like anybody's touched them so feel free. So we'll come back in 10 minutes.

Break

Chairman: We're ready for your opening statement. Whenever you're ready please come forward to the table. I'd just like to remind interveners these are just opening statements now. We'll hear your presentation in a few minutes but the opening statements.

Doreen Tambour: On behalf of Chief and Council of the Hay River Katlodeeche First Nation, Doreen Tambour speaking. As Dene people we are keepers of the land and our traditional lands are something that we are obligated to protect. This includes everything that lives on the land and in the water such as animals, birds and fish. The Hay River is one of the biggest spawning rivers for whitefish and as Dene people it is all living things that we depend on. This is our traditional territory including the landfill site. We have a sincere interest in this development and any imposition this may have on our community and our environment. I'm just going to pass this on to Daniel to say a few words. Thank you.

Daniel Sonfrere:

(Translation begins) Thank you very much for this hearing. To ask us to come to this hearing. It's not only for me, it's for the young people. Our young generation how we work together and how we help each other within the Hay River. We're Katlodeeche how we live. How you going to work with us at the Band office. How we going to work. For me it's pretty hard for me sitting here. What other thing about they have to help

each other with it, across how I think about a lot of things, here I can do that. We'll try this.

There, way back then in our history how the Dene people and the white people, there never use to be this big a population among each other and now it's happening. There's education system. Way back then when I was a young person, when I was a young man, when I look at things I never see this population this big before. Now I don't see that no more. How we're going to do this, how we're going to prepare ourself with these young people. How will they live. How they're going to use it. How they're going to cherish it, value it. How it was born, how it's going to be reborn again. There's a lot of things around us that's really changing and we recognise that. As the earth turns everything's changing. Like the rabbit, the chickens. How we depend on these it's not the same. It's not strong like it use to be. It's not too many of them now. Only sometimes you see the trucks here and there. Way back then our elders, they use to talk to us how the animals and everything that lives on it, it's changing. It was changing, you will notice it. That's when the trees, all the plants on earth, they're not dead yet. Earth is alive. Everything on earth is alive. Everything how it roams, whatever it depends on it. If you see something that's dead that's when, like, everything around it. Because of this earth is alive, everything on it is alive. And everything that depend on it, they eat from the earth, how strong they are. Still a lot of strong people depend on the land. For me it sounds good. If our land is destroyed we can not defend ourselves. Everything will affect us. What's going to become of us. We have to help each other. That's the only way right now. There's a lot of things that's good. There's some stuff that's been planned. There's a lot of good veggies but for me I'm 86 years old, if I don't have my wild meat within 1 week I'll feel sick if I don't have my wild meat. I need something from my land like fish, wild meat, within 1 week I need to have that in my body otherwise I'll feel sick. Even meat, even a little piece of wild meat. Stuff that if a neighbour goes hunting, they kill something, they always share with the neighbours. This is how we feel good today. We need our wild meat, wild fish like that to survive. There is some young people that still live like, for us seniors today we don't feel the same as the young generation.

They, when there is an oil spill I have heard of, I hear it, about it. It's true. A long way back then, when there is a war, American are among us. That time I seen them it was pretty scary. Day or night they fight. I don't know what year it was. It was 19-something. Within Hay River there was 2 people, young men, they went Bear Lake, they sent them there with a lot of, a number of other people. In the fall time in October when it's going to be freezing, by boat barge, old village, that's where they launched the boat. Some people that were able to go. So it froze, the water froze. All the stuff that was on the barge. I saw a lot of stuff on the barge. The Bay manager put all those on the ground, all those stuff. Big bags like that. About this big, about 100 pounds. And that's how, it was on that barge how the Americans came among us. This was all the stuff for them. It was ever strong. It was something really powerful in that bag. They asked me, where you want this stuff to be put? Where can we put it on the earth for. I said thank you. If I was drunk or something I never would have remembered these things. I never was a very, I wasn't a heavy drinker. I still remember this. Where we

put those stuff was in the village, over here. Two hours, within the 2 hours they came back. They started told beside me, you're right. All those stuff that you put on the earth, it was really powerful. Just dangerous. Where you put those stuff down I said, it's still alive. It's not dead, it's still alive. When you talk about stuff like that it's pretty scary, when you talk about it's true how you work with it.

I've got a thing about the young generation. What they think about all these things. The young people, the animals, the water. It all depends on that land. You've got to speak the truth. When I was standing there they took my picture, I still have that picture hanging at my house. I'm still keeping it. I don't want to see it, it's up to you guys. It's something that was 40 years, it's still on, it never died, it's still alive. It's just what they showed me.

Although it doesn't looks too bad, it doesn't looks too bad but it could get bigger, it could do a lot of damage. I'm very thankful when you speak about stuff like that to, not to affect our environment. You try to work with stuff that won't affect us too much. Also, another thing, how you work among yourself I can not work like you guys. I work better at my Band office. Although it's not that big maybe one of you could meet with the Chief and the Council and the people that work with the Band. Maybe you could, we could arrange something to help one another before anything gets bigger or worse. We will tell you what we think on stuff. Today I have a lot of ages on me. I don't want to have, to feel something bad about people. I always want to look at people with respect and be happy. This is what I want in my life. We're on this side with you. Some of them are very careful watching things that are among us. Some people, something's watching us, over our lands.

The young people, we've got to help them. Help within the education system. We'll have to be very thankful to them. First time the treaty was took place when the treaty was established how the white and Dene people, how their, that's how they make peace among the Dene and the white people. For them to work together in the near future, our grandfathers, great-grandfathers, they have thought about this that's why they made this treaty. This is how they helped each other. So the treaty was made. And I'm very thankful that they did that because today it looks good. We're using it. We still have to think ahead and look in the near future for the young generation.

Yesterday across about 3 days we had celebration. They had all kinds of activities. There were people from Alberta. There was some kind of a competition that's ever a lot of fun. A lot of people had a great time. When they look way up above the sky they see 2 eagles flying above them. They're looking at the people, they're looking at us. Stuff like that gives a sign to the people. That's a good sign. We still love our land, we still depend on it and we still have to depend on our land. Our land is still good. There's a lot of new young people. Our kids, when you depend on the earth it's very important. We have to keep the land for the near future. We can, we don't do nothing about it maybe our earth won't last very long if we're not looking after it well. Everything that we work on we do it good. We work it good and protect it and look after it maybe our earth will last a bit longer. This is how our elders used to talk to us. How our elders use to

talk to us, you have to love yourself, you have to help yourself, you have to be careful if you want to live good. You have to, you will live a good life. If you take challenge you have challenge in life. Look after your land, respect it. This is how our elders use to talk to us. Today I still see it this way. We still have, it looks, it still looks good for us in the near future.

This is how, the only way it will get better is we help and help each other. There's some still that affects us. Sometimes some chemical goes in the water, it destroys our water, part of our land. Maybe we could share this with you tomorrow because we're meeting again tomorrow. The weather is coming closer, it's getting hard for us. We'll be talking about it. One elder talked to us. He said, this within Yellowknife region where the mining was, where they had the big exploration, you know, where they had that big accident. He said it's going to happen one more time. This elder said. How many bodies are going to be laying around. This is what's going to happen. He said, look out for that. And also he said, this way where all the old minings are, Alaska, Yukon, all these old minings, where the, where all the old mines are all open pits. You had to watch stuff like that. We, we have to watch for stuff like that. All these old mines, you have to look at it. You can't just leave everything and walk away. We did damage to the earth and the mine because of the old mine. You can't leave it. We have to watch it. That's what that elder said to me. That's why right now, yesterday, across where we had that celebration, Alberto Sumption bought some berries, I bought some good berries. Around here there's no berries. He's like, they're all dried up berries we have.

I still like to talk about a lot of issues but I love my children's children. It's not like long time ago. I'm not telling you like I know everything. It's just the young people from the across maybe I might offend somebody. I have to watch out for stuff like that. I don't want them to feel ashamed of me. If I said something that's not right maybe I might affect them or shame them, so, I don't really want to talk too long.

We still, there's still priests, doctors, there's still lots of these people who work among us people. We can't just throw everything on the table. Us Dene people, us too we have used our land for certain stuff like the animals, fish. Everything that comes from the earth we depend on it, we used it. Not only us have the power with, we're not in control of everything on earth. Within parks, there's a big land out there. When we work something we have to work on it really good. One thing I want to say is, the one who are, like, looking after fish, the fishers, they really work really well with the fish. How they do research. It's been a long time since I have been fishing. How the water is, how the fish is. All this is truth. It still looks the same. They work very well with their environment. You guys here too. Buffalo Park, within the people that work, there's 2 of them that ever work good. Some of them they're not as strong as these 2 people that are working. They want it to look good for the young generations.

Thank you. I want to continue talking but I don't. What we were concerned about I talk about. They probably see it's just tonight. Maybe in the near future we might meet like this again. Thank you. Thank you for making this meeting and I'm very thankful for you listening. Right now how we going to help each other, how can we don't make things,

things that look hard for us we should help each other maybe make it easy. This is, that's all I have to say. Maybe I need to make another presentation. That's all I have to say. Thank you for giving me that time. Thank you. **(Translation ends)**

Chairman: Thank you for that. I would just like to confirm with Katlodeeche, you have a presentation as well that you'd like to make? Okay. I'll ask for opening comments or statement from GNWT RWED. If you have something you'd like to say, introduce who you are at all. If not, oh, you do? Okay. Mr. Gaukel, please.

Harvey Gaukel: My name's Harvey Gaukel, I'm the hazardous substance specialist with the Environmental Protection Service, Department of Resources, Wildlife and Economic Development. My job in the department is to coordinate the Government of the Northwest Territories investigation of spills as well as to ensure that contaminated sites on Commissioner's land get cleaned up properly. I'm able to do this job with the assistance of our renewable resource officers and environmental protection officers. Fortunately we do have these officers in each community.

My presentation later on will be in support of the town's application to amend the water license because the Government of the Northwest Territories feels that this facility is needed in this region and hopefully we'll have similar facilities. other than temporary, throughout the Northwest Territories so that we can have proper soil remediation facilities and thereby protecting the environment and the people in the environment. And so, again, I'll be making a presentation to this effect later on.

Chairman: Thank you. We'll now move back to KFN for your presentation. Ms. Tambour, before you begin can you give me an idea of the duration of your presentation or your expected duration?

Rosaline Tambour: I would say probably about 20 minutes. Rosaline Tambour, Katlodeeche First Nation. On behalf of Katlodeeche First Nation, KFN, we still carry a concern regarding the construction that had taken place for the treatment facility and we felt that there was no response to our enquiry regarding the construction of the pad prior to the regulatory approval, specifically in our correspondence from August 3, it was question number 1. We see a lack of consultation with ourselves as well as with the Deh Cho First Nations. And we believe it is everyone's responsibility to conduct proper consultation with all affected parties. There has not been much indication of a working relationship opportunities with our community to be a part of this responsibility. And as Dene people we have strong traditional values and knowledge with the land, waters and animals in this region and have much concern with this development.

We are currently developing a protected area strategy for our traditional lands that will address potential environmental issues such as contamination. And we want to share information and knowledge we have. And our intentions of developing a protected area strategy are for the best interest of the environment. We do have concern with the proximity of this landfill site to the Hay River and the potential for any impact with the watershed, the land or the animals. Our community is located down the river from the

landfill site and our concern is the potential for any contamination to the environment as a result of the bio-treatment pad.

In reference to the GNWT, Resources, Wildlife and Economic Development letter dated August 16th, 2004, we support their findings regarding the time and location of the facility. Specifically the time required for treatment depends on several factors including pile design and level and type of hydrocarbon. We are, once again, referring to the lack of consultation and not having a clear understanding as to what those factors are. The second note was siting for these facilities is usually in a location somewhat distant from municipalities to reduce the potential for any concern with vapours. With respect to that note we view that area as being our traditional land as well so we do have concerns with that. We feel that there has not been relevant data of long term effects of hydrocarbon treatment that is comparable to the northern climate that can be extreme in comparison to southern Canada. And I'll allow Kelly Pennycook to conduct his presentation, the remainder of the presentation will be in PowerPoint.

Kelly Pennycook: Kelly Pennycook, Katlodeeche First Nations. I've got a small PowerPoint presentation on the bio-pad. It's based on the Deh Cho process of which all the governments in the Deh Cho region have signed on to. Okay, like I said the Deh Cho process is a negotiation process signed on by all the governments in the Deh Cho region and it specifically says the town of Hay River will work cooperatively with the Deh Cho First Nations on development. Something that they haven't been doing lately in the last 3 or 4 developments. And the Deh Cho First Nations and Katlodeeche First Nations getting worried about it. It also said the parties will explore options and identify processes for addressing overlap issues in the town of Hay River. Something else that hasn't been happening. The MVRMA says First Nations will be included in decision making and that the applicant must make an effort to inform and obtain feedback from First Nations in the project area. This is suppose to be done prior to the application being submitted and it wasn't done so the application should have been sent back as incomplete.

There's a picture of the landfill site. If you notice the proximity to the water source. On the east side is the Katlodeeche First Nation Reserve area and in between is the Hay River. This is a, water protection is a management priority for the effected First Nations in the Deh Cho process and was identified as one of the areas of management. The Katlodeeche First Nation reserve is adjacent to the bio-bad. The Hay River watershed is immediately between the town of Hay River and the Reserve and runs the entire length of the Reserve. And we're wondering where the high water mark was if it's been identified and if, when the river breaks I've notice a few areas in Hay River is flooded and bridges have washed out. Has the water ever came up into the damn area when the ice breaks?

The traditional knowledge from the Deh Cho process. The flora and fauna do not coexist with the contaminants. The water bodies make a good transfer medium for the hydrocarbons and we're also concerned about the whitefish in the Great Slave Lake as it is a major spawning are, the Hay River. With wildlife such as the bears and ravens at

the landfill sites having linear linkages that will impact other flora and fauna, this could lead to adverse affects on the environment in the project are. And the elders of the Katlodeeche do not support this project and are worried about the cumulative effects that it will cause.

And some of the conclusions they have drawn, we want to know if this technologies has been proven elsewhere with this type of climate and such as the northern climate referred to a shorter and colder region. Also, the runoff methods. Also the proponent Water Works says that in their application that the water may impact by the waste material. So, they've identified that themselves. And when the bio-treatment company says statements like the aforesaid, how can the Katlodeeche First Nations take a chance on the project impacting their traditional lands without a full environmental assessment.

That's it for the presentation and I was wondering if I could ask a couple of questions.

Chairman: Thank you, Mr. Pennycook. I was aware that you had a question about the regulatory process and I am prepared to entertain that question to an extent, those questions to an extent for clarification purposes but I don't want to stray too far outside of the purpose of this hear.

Kelly Pennycook: Okay. Kelly Pennycook, Katlodeeche First Nation. With the construction of this pad prior to the regulatory approval, I was wondering if this approach is a part of the regulatory process and if not what steps are being taken to stop approaches such as this?

Unknown: Thank you, Mr. Pennycook. I'll just explain a bit about the way land use permits and water licences work and a bit of the regulatory process. As this undertaking is well within the municipal boundary for the town of Hay River, they are not required to obtain a land use permit. Simply put, they need a water license from us but they don't need a land use permit. Those are the 2 main instruments that we issue. Water licenses are issued for the use of water, #1 or #2 for the deposition of waste. In this case I think your concern is about the construction of the pad prior to coming to us for an amendment. Because the landfill site is within the municipal boundary they are not required to obtain a land use permit from us. That land use permit is the instrument which would cover the construction of the pad. The use of the bio-treatment pad would be covered by the water license. And there's a distinction there. In other words, under our legislation, because it's within a municipal boundary we're not, they're not required to come to us for permission to construct it, only to use it. The town of Hay River, barring other governing legislation outside of the MVRMA or the NWT Waters Act can choose to operate within the municipal boundaries as they choose, as they see fit. And where we get concerned is #1 when they use water, #2 when they dispose of waste.

So, in this case, I outlined in my opening statements that there was a bit of confusion about where the regulatory authorities lie. And what requirements the town had or the onus the town had to obtain those permissions and once that was clarified they came to

us, they ceased as far as I'm aware, they ceased to use the pad and came to us requesting permission to use the pad which is essentially the purpose of this hearing today. Does that clarify the question for you?

Kelly Pennycook: Yes, it does, thanks. Kelly Pennycook, Katlodeeche First Nation. I'd like to ask the town of Hay River one more question. The town of Hay River has shown in their 5 year plan to the Katlodeeche First Nation and there was no indication of this pad in their landfill site. Why don't they accelerate the process of their new landfill pad to accommodate this project rather than having it close to the proximity of the water body? Basically, we're asking is, why don't you guys accelerate the process of the 5 year plan with the new landfill site and include this bio-pad project in it?

Todd Pittman: Right now, we're restricted from development of a new landfill site because we have no land to develop. Management issues at the existing landfill dictated that we need a cover and, as I outlined in my presentation, that was one of the conditions of the development of this pad. It goes to the management of the existing site, which I might add is also utilized by the Katlodeeche First Nation.

Chairman: For the record, that was Todd Pittman for the Town of Hay River. Mr. Pennycook, a follow-up question?

Kelly Pennycook: No, that's good. Thanks.

Chairman: Thank you. Does that then conclude the presentation from KFN? Thank you very much. I'll just ask for questions for the intervener. First step, are there any questions from the applicant for KFN? Mr. Kruhlak, please.

Ron Kruhlak: Yes, Mr. Chairman. I've got just a couple of questions but I'm wondering how late you wanted to run or whether I could be better organized if I had 5 or 10 minutes to organize my comments? Did you plan, Mr. Chairman, to proceed to after 4:00 o'clock?

Chairman: My plan was to finish the questioning for KFN before we break. If you need a few minutes, perhaps we can move ahead. Well, we can give you a few minutes. If you're going to need more than that then we can move ahead and come back to you.

Ron Kruhlak: Mr. Chairman, it's Ron Kruhlak. A few minutes would be adequate.

Chairman: Okay. We'll give you a few a few minutes. While we're waiting, are there any questions from other registered interveners or questions from the public for KFN?

Todd Pittman: Todd Pittman, Town of Hay River. I have one question. In your correspondence dated August 3, 2004, item #2, you state that the treatment facility appears to be environmentally safe as a freestanding site as long as it is properly

managed on an ongoing basis. In your presentation, you outlined concerns about potential environmental damage. Referring back to your previous correspondence, I'd have to assume that since you stated that the site is safe, you're assuming that the environmental damage is going to come from management practices. Can you outline what specifically your concerns are and how we might address those in a change in our management plan?

Rosaline Tambour: Rosaline Tambour, Katlodeeche First Nation. With reference to that question in #2, there is the exception with the proximity to the river so, I guess our concern is looking at the watershed and other impact that could potentially affect the water. With respect to the management practice, we would have to confer back with our Chief and Council and to allow them to detail their concerns with a little more detailed information and submit that back to you.

Ron Kruhlak: Mr. Chairman, it's Ron Kruhlak. I don't think we'll need, if you don't have a further expansion of that right now, that's alright. I have a question for Mr. Pennycook with respect to some of his comments. I wonder, having now heard the responses of Mr. Pittman and Mr. Chapman, whether you have still identified any particular deficiencies? You've indicated you believe there was some need for further study. Can you identify any particular study that you would yet undertake having heard the evidence today?

Kelly Pennycook: We're basically wondering about the table, the high watermark and the water table; sampling, perhaps, program; a time schedule for the water table in the area; the river; perhaps the shore line as well for soils.

Ron Kruhlak: Alright, so the monitoring program that is established through the license would be your concern?

Kelly Pennycook: That's affirmative.

Ron Kruhlak: Am I correct, as of the current time that if the KFN had contaminated soil there'd be no place on those lands to have the soil treated?

Kelly Pennycook: I'd have to ask the Chief and Council about that.

Ron Kruhlak: You're their environmental consultant?

Kelly Pennycook: I'm their Resource Management Coordinator for Katlodeeche First Nations.

Ron Kruhlak: Mr. Chairman, it's Ron Kruhlak. And I take it you can't tell us today whether or not you have any treatment facilities at KFN?

Kelly Pennycook: As far as I know there's none at the present time, no.

Ron Kruhlak: Mr. Pennycook, are you aware of other land farming or treatment that's taking place in the territories and further north of here?

Kelly Pennycook: I'm aware of some projects, yeah.

Ron Kruhlak: So you're aware that soils are safely being treated at these latitudes?

Kelly Pennycook: I'm not aware if they're safely being treated, but I'm aware they're being treated. This project is, got better safety standards than most of them that I've reviewed, that's for sure. Like I said, they are worried about the management practice, cumulative effects and the watershed: 3 major concerns.

Ron Kruhlak: Thank you very much. Those are the questions we have.

Chairman: Thank you, Mr. Kruhlak. There are no questions from the audience or from registered interveners. I'll ask for questions from Board staff or counsel. Mr. Paradis.

Adrian Paradis: Adrian Paradis with the Land and Water Board. I might be able to shed some light on the monitoring requirements that the board will be reviewing. In the board package that's been provided to various interveners there's 2 standards. There's Environment Canada Guidelines and there's also the Code of Practice from Alberta. Between the 2, the code of Practice from Alberta holds a little bit of a higher or more stringent monitoring requirements. It'll lay out both the ground water and the monitoring requirements for the contaminated soil that will be accepted. That's kind of what I would hope to use or be the minimum standard that the board would use. This has been discussed and this has been on this file for, when the original application came in. So, my question would be, have you had a chance to review these documents and do you have any recommendations for them or to make them more applicable in this case?

Chairman: Thank you, Mr. Paradis. Ms. Tambour.

Rosaline Tambour: Thank you. Just in response to that, Adrian, I believe that we would have to take that back to Chief and Council and find out what there recommendations are and be able to submit that in the event that there are. Thank you.

Chairman: Any further questions from staff or counsel. Questions from the Board? Mr. Van Camp. Alright, thanks very much. It's just after 4:00. I'd like to take a break and reconvene at 6:00 p.m. We'll begin with any presentations or questions from registered members of the public or questions from the public at large at that time. If there are no questions or we end early, if there are no questions or presentations, we'll break at that time and then start up tomorrow morning with the GNWT. So we'll see you all back here at 6:00 o'clock.

BREAK

Chairman: Originally, so that we could ensure members from the community and surrounding area who were interested in speaking but were not able to attend the mid-day sessions would have an opportunity to come and speak before the Board. So at this time, I guess I'd just like to confirm if there are any members from the public who would like to speak who are not registered, they're certainly welcome to do so. I think I've heard from pretty much everybody that I'm looking at. What I'd like to do is, I'm assuming that's a no that we don't have anyone, I'd like to give it about 15 more minutes basically until about 6:20 to see if somebody shows up and, if they do then we'll certainly entertain their questions. If around 6:20 nobody has shown up then we'll call it a night and reconvene tomorrow at 9:00 a.m. In the meantime, I guess I'd like to wait a good 15 minutes to see if somebody from the town shows up, or area, and is interesting in participating. So, in the meantime, please do some damage to the doughnuts. Thanks.

Break

Okay, everyone, we'll call it a night and reconvene 9:00 a.m. tomorrow morning. Don't forget to take a doughnut on your way out please. Thanks.

Chairman: The amendment request from the Town of Hay River to the water license. First up this morning is Department of Renewable Resources, Wildlife, Economic Development, GNWT. Start with their presentation following with questions to the intervener. Before we do that, I just want to ask the town if they have the response to their requested undertaking. Mr. Kruhlak.

Ron Kruhlak: Thank you, Mr. Chairman, it's Ron Kruhlak. Yes, Mr. Pittman has a response to the undertaking which was taken by him yesterday in a question from board staff and I'll have Mr. Pittman just explain the document he is going to distribute.

Todd Pittman: Thank you, Mr. Chairman. In response to Mr. Paradis' question yesterday with regard to the depth of the ground water and what the ground water profile, the pesametric profile is, I'd like to submit pesametric profiles that were taken of the landfill site in a study by Dillons from Yellowknife. Do I present those too?

Chairman: Thank you, Mr. Pittman. We'll mark that as Exhibit 1. I'd like to ask Resources, Wildlife and Economic Development to come forward to the table to make your presentation. Thank you. Mr. Gaukel, welcome. Whenever you're ready, please proceed.

Harvey Gaukel: Harvey Gaukel for Resources, Wildlife and Economic Development. I have a brief presentation for the Board. I'll be quickly touching on the Environmental Protection Act, our spill contingency planning and reporting regulations, our Environmental Guideline for contaminated site remediation, soil treatment, hazardous waste management, the Hay River Landfill, and the treatment pad. The Department of Resources, Wildlife and Economic is just one regulator when it comes to spills and

contaminated sites in the Northwest Territories. Under the Northwest Territories/Nunavut, Spills Working Agreement there are other regulators that also deal with spills and contaminated sites. For instance, there's the Indian and Northern Affairs Canada. Their responsibility is for licensed facilities or spills on water in the Northwest Territories. Environment Canada, they're responsible for investigating spills at federal facilities such as the Dew Line sites and other federal properties, including national parks like Wood Buffalo. There's the National Energy Board. They're responsible for oil and gas exploration and production facilities. The Canadian Coast Guard, if there's a spill from a vessel, they respond to that. The Inuvialuit Land Administration, they look after Inuvialuit lands. And finally, the Government of Nunavut and they take care of Commissioner's lands in the Nunavut Territory.

RWED's responsibility is for, or the Government of the Northwest Territories responsibility is for Commissioner's lands which potentially includes communities and the highway system in the Northwest Territories.

The Environmental Protection prohibits the discharge of contaminants into the environment. Where there is a discharge, the responsible party must report the discharge, stop the discharge, repair any damage that has been caused from that and notify affected public. Reporting the discharge is usually to the NWT 24 hour spill report line. Stopping the discharge can be done in a number of ways. Repairing damage could include removing contaminated soil and repairing any building that may be affected or adjacent properties. Notifying the affected public can include letting the neighbouring property know or the hamlet, town, city maybe. Under the Environmental Protection Act there's the Spill Contingency Planning and Reporting Regulations. This includes the requirement for preparing and filing a spill contingency plan to the Chief Environmental Protection Officer and the requirement for reporting spills. A spill contingency plan must be prepared and filed for an above-ground facility of 20,000 litres or more. So that means if that facility holds 20,000 litres of a contaminant such as diesel fuel or gasoline above ground, so like the bulk station, then they must file a report or, from an underground facility of 4,000 litres. If the facility is less than 20,000 litres or 4,000 litres, as the case may be, they are not required to file a plan with the Department of Resources, Wildlife and Economic Development. Spill reporting is mandatory if spillage is equal to or greater than scheduled quantities. So in the regulation there is a schedule, the number of contaminants listed and I've put one here, flammable liquids which includes diesel or gasoline. So, if 100 litres or more is spilled then the spill must be reported. If less than 100 litres is spilled, it does not have to be reported under this regulation. It still does have to be cleaned up but it does not have to be reported.

When we come across a contaminated site, what we consider a contaminated site is a spill larger, may have occurred for several years. There's usually a bigger impact, more so, people affected and possibly more than one property. We have developed the environmental guideline for contaminate site remediation. This guideline was recently revised and adopted by our Minister in 2003. The main reason to change the guideline was to incorporate the newly formed Canadian Council of Ministers of the Environment, Canada's only standard for petroleum hydrocarbons. And we've heard that yesterday,

it's criteria for petroleum hydrocarbons. The guideline was developed to help solve contamination problems on properties by setting soil standards for site remediation or, otherwise, cleanup. This tank in the picture here is from a property here in Hay River.

So we have developed the guideline to solve the contamination problem or potential contaminated site on Commissioner's land, or private land within municipalities. So we use this day-to-day for dealing or cleaning up the sites. The federal government may use it and we encourage them to use it if they don't have their own guideline, or any of the other regulators to use this same guideline. The guideline contains soil cleanup criteria for petroleum hydrocarbons, benzene, toluene, ethylbenzene and xylene, or otherwise known as BTEX, metals and other contaminants. For this particular facility, we'll be looking mostly at petroleum hydrocarbons and BTEX. I'd like to point out, most sites in the Northwest Territories are contaminated with either petroleum hydrocarbons and BTEX. Again, the petroleum hydrocarbons here are the same criteria as the Canadian Council of Ministers' environment criteria for petroleum hydrocarbons.

Now, for treatment of contaminated soil, land farming is the most common treatment option for this soil in the Northwest Territories. So if soils are contaminated with diesel fuels, for instance, they're spread out in a treatment cell so that microbes can degrade the contamination. They consume it for energy. The treatment lasts until the soil can be re-used and prior to treatment, we usually set an end point: so if it's going to be cleaned to a residential standard, to a commercial standard or to an industrial standard.

The next slide is 4 examples of land treatment or land farming elsewhere in the Northwest Territories that are presently in the works. These are from the Department of Transportation in 4 different locations. One's James Creek near the Dempster Highway. The other is in Fort Simpson, in Norman Wells and in Inuvik. These sites are engineered. Each one of them, as you can see, has some synthetic membrane to provide some impermeability. Besides this, there are a number of other parties in the Northwest Territories that use land farming to treat soils: one of them including the Northwest Territories Power Corporation. Land farming has been successful in communities such as Deline and in Tulita which are quite a bit north of here. Difficulty that we run into is temperature when it comes to the land farming and it may take an additional season in the more northern communities than it would possibly here. So versus maybe 2 years to treat soils in the southern land, it might take 3 in the more northern one.

So, when we investigate a spill or contaminated site, the party tells us how they're going to treat it. If the party wants to take it to a land treatment site, if we approve of that site, we'll approve of other plans. If a party want to use a municipal infrastructure or landfill site, sewage lagoon or anything else the municipality is responsible for, they must get approval from the municipal government. It's just something that we advise that party.

Alternative treatment options would be to treat on site. This is currently happening in the City of Yellowknife with a gasoline station. The contamination is underground and, instead of digging up the soil and removing it, they're putting in infrastructure to remove

the contaminants from the soil. This cannot always happen, for instance, in a residential neighbourhood it's best to dig up that soil and remove it to a better location for treatment. That's primarily because of the vapours that could potentially impact the public health of, or the health of the people in the neighbouring properties. The second option is to construct a land farm outside of the community and this may require a land use permit or some other authorizations. Another option is to transport the soil to a community for treatment, another community. The cost of transport may make this option impossible. Or, finally, transport the soil to the south for treatment and, as Hasco mentioned, there are some soils that cannot be treated and they do have to be transported to a southern facility.

Now hazardous waste management in the Northwest Territories is a cradle to grave monitoring system. This means that the waste is tracked from where it's generated and to where it's finally taken for disposal or treatment. All hazardous waste generators, carriers and receivers must be registered with the Environmental Protection Service. So we maintain a data base for waste manifesting and we provide the forms to companies that need to transport waste and after the waste is transported, we get copies of the same form and we maintain the data base and so far forever.

In Hay River, prior to the bio-treatment facility, it was very difficult to deal with both contaminated sites and spills. Primarily the landfill was closed. The municipality did not allow contaminated soil in to their facility. So it presented a problem with those parties that had to do something with the soils. So, we've seen soils go to Enterprise, Enterprise landfill, and we also saw the construction of a number of land farms within the community. For instance, one from Red Rooster, they removed the soil across the highway to the industrial park into a couple bio-treatment cells.

RWED met with Hasco prior to the construction of a bio-treatment facility and reviewed their plans and were quite satisfied with what was being proposed. In fact, it's probably one of the best facilities in the Northwest Territories right now. The town of Hay River is currently registered to receive asbestos for disposal at the landfill site and, as well as, hydrocarbon contaminated soil for treatment. The facility is engineered, buried and lined and both with a membrane-type liner and with a fairly thick layer of clay. Due to its location, it's not within a 100 metres of the nearest body of water. This presents a low risk to the environment. The site's supervised and the soil is treated. So it's not disposed there, it's treated so that it can be re-used. This is a very important point. Fairly highly contaminated soil is taken from possibly a residential site, commercial, industrial site and taken to this site and it's treated so that it can be re-used. In this case, it might be for landfill cover which has been done elsewhere in the Northwest Territories. It helps the community in order to deal with its contaminated soil problems and it's something that we hope to have in other regions of the Northwest Territories.

So I would like to conclude that RWED recommends the water license be amended to allow the continued operation of the essential facility. And that concludes my presentation.

Chairman: Thank you Mr. Gaukel. Are there any questions from the town of Hay River for RWED on the presentation?

Ron Kruhlak: Thank you, Mr. Chairman, it's Ron Kruhlak. No, we wouldn't have any questions of RWED.

Chairman: Thank you. Are there questions from the other registered intervener, KFN? No questions, thank you. Any questions from the public, members of the audience? Questions from board staff, Adrian, Mr. Paradis?

Adrian Paradis: Adrian Paradis, Land and Water Board. I just have one question. For standards for the CCME criteria for industrial sites or landfills, what's the recommended or does RWED have a recommended standard that the M-pont should be? What's the hydrocarbon fraction or the CCME standard that should be cleaned to?

Harvey Gaukel: Under our guideline and the CCME petroleum hydrocarbon guideline, there are, the petroleum hydrocarbon criteria is split up into 4 fractions and that is to cover different contaminants. For instance, fraction 1 would cover a carbon range between carbon 6 and carbon 10. Fraction 2 would cover a greater than carbon number of 10 to 16. Fraction 3, 16 to 34 and fraction 4, greater than 34. There's also a number of land uses to determine what criteria to pick. There's agricultural, residential, commercial and industrial. So if we're to look at industrial, there's a number of receptors that you would look at in the guideline. So for, if we were to use the landfill site, like a final capping type material, there are 4 different numbers that you would use and each one of those numbers you would have to meet the fraction. It really depends on which receptors you want to protect. There are sole ingestion; dermo-contact, which means if you touch it with your skin; vapour inhalation for indoor, if you want to protect residents inside a house and you want to make sure there's no vapours in it; protection of potable ground water; protection of ground water for aquatic life; and eco-soil contact. The most stringent criteria that would apply to the site, for instance, fraction F1 would be 330 parts per million. Fraction 2 would be 760. Fraction 3 would be 17 or 1,700 parts per million and fraction 4 would be 3,300. I'd like to reserve the chance to review this and confirm this as well because I haven't spent much time thinking about this.

Chairman: Thank you, Mr. Gaukel. Any follow up question? Mr. Lennie-Misgeld.

Peter Lennie-Misgeld: Peter Lennie-Misgeld, Land and Water Board. Mr. Gaukel, I wonder if you could explain what, if any, role your department has in terms of enforcement inspection of a facility such as this one here?

Harvey Gaukel: For this facility, because they want to receive hazardous waste, they must be registered with our department to receive that hazardous waste, which they are. So for that, our hazardous waste specialist reviewed the plans and met with Hasco to understand what they plan to do and was satisfied with that and then gave that registration so that they can receive the waste. Other than that, RWED doesn't inspect

the facility itself or make sure it's running properly. That would fall under the water license and I believe a federal inspector would make sure that it's running as it should under the water license.

Chairman: Thank you, Mr. Gaukel. Any other questions from board staff or counsel? Mr. Donihee.

John Donihee: Thank you, Mr. Chairman, John Donihee for the board. Mr. Gaukel, I expect that the DIAND inspectors will be focusing on, pursuant to the water license, will be focusing on whether or not the hydrocarbons or whatever goes into this facility, get into water. I guess I'm just curious. I take it from your presentation that there's still a discharge of a contaminant taking place when this contaminated soil is spread into the landfill or the treatment facility so I'm curious, do you work with DIAND in any way to try to keep track of what's happening in these facilities?

Harvey Gaukel: When it comes to contaminated sites, we, the Department of Resources, Wildlife and Economic Development, take, on Commissioner's land, takes care of the soil, makes sure the soil gets cleaned up to the proper criteria. If there are impacts to surface or ground water Indian and Northern Affairs Canada takes care of that. Although the project deals with contamination as a whole, we kind of split up the jurisdiction for that. So when we know of a site, not at the landfill but we know a site elsewhere, we work with DIAND. When the materials go to the site we would keep track of the soils in the facility. And I understand there'd be monitoring wells, ground water monitoring wells for this facility and likely sampling requirements. We wouldn't necessarily be involved with making sure that the water possibly coming off of the site meets the criteria. I believe that would be federal jurisdiction.

Chairman: Thank you, Mr. Gaukel. Follow up, Mr. Donihee.

John Donihee: Thank you, Mr. Chairman. John Donihee for the board, just one other question. Your department, I understand it has transportation of dangerous goods responsibilities as well for GNWT or, anyway, in one way or another, on highways in the NWT my understanding is it's GNWT responsibility to track dangerous goods transport. Is that correct?

Harvey Gaukel: The transportation of dangerous goods falls under the Transportation of Dangerous Goods Act and that is enforced by the Department of Transportation. RWED's involvement is to track the waste itself. So to make sure that where it's generated and where it's taken to is tracked. How it gets there in between is up to the Department of Transportation. So if there's an incident or a truck drives off the road, or if there's placarding the problems, they're not properly placarded, if they're overweight, the transportation aspect is the Department of Transportation. So we deal with the point A to point B monitoring of the waste.

Chairman: Thank you, Mr. Gaukel. Are there any questions from members of the board? No questions. Thanks very much. We'll take a break for a minute. After the

break we're going to come back and get into questions from, sorry, closing statements. I just want to confirm again, I see everybody in the audience I saw here yesterday but I just want to make one last call for members of the public to come forward to present or speak to the board. Is there anyone in the audience whose interested in doing that? Okay. So we'll take a break now, 10 minutes to give people time to prepare for closing comments and we'll start up first with the town of Hay River in reply to anything they've heard and then the registered interveners, again, followed by the town of Hay River, and then final word from the board. I've got about 9:35. We'll make it 9:45.

BREAK

Adrian Paradis: ...be directed to Mr. Gaukel to clarify something that Mr. Paradis asked him. So, if there's no objections, we'd just like to ask that one question to Mr. Gaukel and clarify this for the record.

Chairman: Mr. Kruhlak, do you have any objection?

Ron Kruhlak: No we don't, sir.

Chairman: Thank you. Mr. Gaukel, would you be willing to come forward to answer one more question please.

Adrian Paradis: Adrian Paradis, Land and Water Board. I apologize for this. It was kind of a rambling question so what I'd wanted was, what land use, end land use does the town of, does the Government of the Northwest Territories like to see at the end of this, like, commercial, residential, industrial and what land use criteria is recommended?

Harvey Gaukel: Harvey Gaukel. We'd recommend industrial land use criteria.

Chairman: Thank you, Mr. Gaukel. Mr. Donihee, anything further.

John Donihee: John Donihee. Yes, one thing further, Mr. Chairman. During the break Mr. Pittman gave us a letter from the town of Hay River, signed by himself which confirms evidence that he gave on the records yesterday, that being that the town ceased operation of the pad as soon as they were notified by the Land and Water Board that this license amendment was necessary. If there's no objections, I'd like to file this on the records as Exhibit #2.

Chairman: Thank you, Mr. Donihee. We'll note that as Exhibit 2. Thanks, Mr. Gaukel. I'd like to give the town of Hay River an opportunity to respond to the presentations that they've heard and reply to any information that's been presented. We'll do that next. Immediately following that, we'll move into closing comments from the registered interveners followed by closing comments from the town. So having said that, Mr. Kruhlak, do you have anything that you'd like to state to put on the record to reply to what you've heard in the presentations?

Ron Kruhlak: Yes, Mr. Chairman. It's Ron Kruhlak. I think we have several brief questions that I'll want some clarification on from issues that were raised through cross-examination. For the first issue, I'll ask Mr. Pittman to address but that's in a response to a question or issue raised, I guess, in the presentation of KFN about the high water mark on the river and whether that was taken into consideration in locating the treatment pad. So, Mr. Pittman, could you please comment on that.

Todd Pittman: Todd Pittman, town of Hay River. The KFN outlined a concern yesterday with proximity to the river and whether this facility was within the flood risk zone. At the Town Hall here in Hay River we maintain an extensive series of maps for the lower Hay River area that outline flood risk zones all through the lower Hay River. I pulled out the map pertinent to the area under discussion last night and I would like to enter it as Exhibit #3, I guess, although I'd like to have the opportunity to copy this original first. This map will show clearly that it shows the existing landfill area and it will show clearly that we are well outside the flood risk zone. The flood risk zone probably encompasses an area within 20 metres of river's edge right now and that would still leave us at approximately 320 metres from the edge of the flood risk zone.

Chairman: Thank you, Mr. Pittman. We will be pleased to receive that as Exhibit #3. If I could ask you to please make copies for each of the registered interveners as well as a copy of for the board to go on the Public Registry.

Todd Pittman: Note taken.

Ron Kruhlak: Thank you, Mr. Chairman. It's Ron Kruhlak. I have a couple of matters just to seek some clarification on from Mr. Chapman. Also, from the KFN presentation, there was reference made to a quote which I think Mr. Pennycook indicated that because of this statement, the KFN could not support this project and it should not be, the amendment should not be approved. I have noted down here that he took a reference, "water may be impacted", and made reference to this particular statement and I'd just ask Mr. Chapman if he could provide us with some clarifications exactly what would be meant by that term and whether or not water is impacted by this particular amendment application.

Brad Chapman: Thank you, Mr. Chairman. Brad Chapman, Hasco Environmental Services. As part of the Waste Works operations plan for the Hay River treatment facility, we've dealt with the surface water and leech aid management which is on page 9 of the document called "The Hay River Petroleum Contaminated Soils Treatments Facility Operations Plan". It's a draft document dated October 2003. On page 9, we deal with surface water and leech aid management issues. Surface water at the Hay River treatment facility can be categorized in two ways: 1. Non-impacted water, or clean and this would be all the water falling on non-impacted areas at the disposal site and these areas would include road, clean soil stock piles and unused areas among others. This water is considered clean water and will not have come into contact with any waste stock piled on the pad. This has to do with the fact that the pad is an engineered facility. There's a one meter compacted clay berm around the entire pad.

So any clean water potentially coming in contact with the pad would be diverted around the pad and it wouldn't contact any contaminated soils on the pad. So that's the non-impacted clean water outlined in our operations plan. The other water identified in our operations plan is called "the impacted water" or refer to it as leech aid and this is water that would be falling from precipitation or snow melt on the pad and it would be water that would land on the pad and potentially contact impacted soils on the pad. We would call this leech aid and this water would be contained within the facility and it would drain off the pad into our lined leech aid pond which has a 30 ml. high density, polyethylene liner inside it. That leech aid pond would then be used to store this potentially impacted water and our plans for this water is to re-apply it to the impacted soils or the contaminated soils on site, to wet it down to further aid bioremediation. We also use this water to control dust on the pad if dust is an issue. Excess impacted water may be treated on site with a water treatment plant that is installed within the treatment pad and this would be an activated carbon type vessel treatment plant that would remove hydrocarbons from water if we felt we had the need to treat water from our pad to discharge off the pad. The other option is impacted water would be sent to an off-site disposal facility for down-hole injection. Presently, we have Newalta's facility in Rainbow Lake in Alberta as our identified disposal facility for potentially impacted water.

I'd just like to point out, as well, that with most of the treatment pads that we operate, impacted water just refers to the water that falls within the treatment pad and it's usually snow melt or rain water. It's just a matter of standard operating procedure to manage that water as though it is impacted, even if it is clean. We rarely move that water to a disposal facility because it usually evaporates in the pond or we use it for wetting down the treatment piles because we need to keep the moisture content up in the treatment piles to ensure that the microbes have enough moisture to do the degradation work. Rarely do we ever move this water offsite and I've noticed at the Hay River treatment pad, the water within our leech aid pond has been dropping dramatically with just the dry weather that they've had in Hay River recently. That is pretty much a standard operating procedure for these sorts of facilities.

Break in recording

Ron Kruhlak: Mr. Chairman, it's Ron Kruhlak. I also wanted to just highlight, there was a question raised this morning about, in particular, whether there were any regulators actually inspecting a facility after it's constructed. It was discussed that the plans are reviewed but having third party inspection. As in this situation, we have the pad constructed. Can you advise the board as to whether or not it has been inspected by any independent, qualified, technical person?

Brad Chapman: Brad Chapman, Hasco Environmental Services. Yes, as part of our standard operating procedure for developing these types of facilities, not only do we have a quality assurance, quality control program in place, but we also, in part of the pad design, identify exactly what specifications we're following in terms of compaction levels on the clay liner, engineering specs for the geo-membrane liner in the pond and also specifications for all other related earth works which are part of the water license

amendment package. They're referred to as the bio-pad soil treatment miscellaneous earthworks, 2003 Earthworks Construction Detailed Specifications. In terms of inspection, after the pad was constructed, we had EBA Engineering Consultants from Yellowknife send engineers over and they conducted 2 specific inspections of the pad: one on July 31, 2003 and another one, a final density testing done on September 8, 2003. EBA determined that, I'll just read from the report here, "Based on our observations and subsequent review, EBA considers the compacted clay liner was installed in general accordance with acceptable construction practices and the intent of the design". And it was signed off by Robert Gervin, a Geo-technical Engineer with EBA, and T.E. Hove, Professional Engineer with EBA. What this report shows is that all of the testing done on the pad following constructions met the pad design and met standard criteria for this sort of facility.

Ron Kruhlak: It's Ron Kruhlak, one last brief comment of Mr. Chapman. There was a comment raised about whether this project still involved the deposit of waste because contaminated soil would eventually be spread on the landfill and I'd just ask Mr. Chapman if you could clarify whether or not that's what would be happening here as this facility commenced operations.

Brad Chapman: Brad Chapman, Hasco. No, at no time will contaminated soils be discharged to the environment at this facility. All impacted soils or contaminated soils coming into the facility would be deposited directly on the treatment pad for treatment. The only time the soils would leave the treatment pad is after the treatment process has been completed and we've done our final testing and we've met the CCME criteria for industrial soils.

Ron Kruhlak: Thank you, Mr. Chairman. Those are our reply comments.

Chairman: Thank you. Next on the agenda are closing comments from the registered interveners. First up, Katlodeeche First Nation. If you could come forward with your closing comments, we'd be pleased to hear them.

Doreen Tambour: Doreen Tambour, Katlodeeche First Nation. Our relationship to the town is really important and as equally important as a relationship with the lands, waters and animals. We believe that the town of Hay River and the KFN Nation should work together in an honest, meaningful, transparent management process in good faith as stipulated in the Deh Cho process. We want to deal in an effective way so as to not hurt the environment, flora and fauna as it is our responsibility to speak up for the environment. The Katlodeeche First Nation sees that there are a lot of factors, concerns, technical responses, as well as cumulative effects that still need to be addressed adequately. Consultation and application questions regarding this project were not addressed. Due to the lack of consultation by the proponent, we were limited and uninformed about this project and, therefore, inadequately prepared to address all the pertinent issues that this project has created and will create. The water license monitoring was not circulated with the amended application or available prior to the public hearing. The current baseline data could be inadequate for the applicable

volume of contaminants intended for the amended application. Water table and soil sampling frequencies should be comparable with the highest level of standards for the threshold acceptability as well as other environmental standards. There needs to be an analysis comparison to other national and international thresholds with a technical evaluation for the water table and ground soils set at the highest standard. At the start-up of the project, we recommend an increase in frequency sampling from spring thaw to freeze up.

Deficiencies such as cumulative effects, water tables, soil, watershed as well as management and liability of the site need to be addressed. We have concern for cumulative effects this project will cause. Too much may be done to the land and the land can only take care of itself so much before it breaks down. There is also concern with fumes from the project because the KFN is located in the direction of the prevailing winds. Once again, our concern is the animals, birds and vegetation in the area are not adequately protected. Although there is a fenced in area, it would not contain fumes that may be toxic. Katlodeeche First Nation is limited with resources to adequately respond to technical aspects and reports for the requirement of permits and applications. With the water license for this project, there was inadequate time to address all of the concerns without consultation. Katlodeeche First Nation believes these above-mentioned factors would be mitigated by adequate consultation. We believe this file needs to be addressed by the Mackenzie Valley Environmental Impact Review Board for the above-noted reasons but not limited to. We are in the belief that a public hearing should be conducted in our community pertaining to this project that does exist on our traditional lands. Thank you.

Chairman: Thank you, Ms. Tambour. Are there closing comments from Department of RWED?

Harvey Gaukel: Harvey Gaukel, RWED. I'd just like to say again that RWED recommends that the water license be amended to allow the continued operation of this facility because it will help the community and area deal with its contaminated soil problems.

Chairman: Thank you, Mr. Gaukel. Mr. Kruhlak, any closing comments from the town of Hay River?

Ron Kruhlak: Yes, Mr. Chairman. It's Ron Kruhlak. I have a number of closing comments to make. I guess, firstly, it's important to stress that this is not a project that impacts the environment. We are not generating waste here, we are treating it. It's clearly a project that's good for the environment. It's unfortunate about the initial confusion with respect to licensing and that we have a facility that's built. I think the town agrees with the concerns raised by the Katlodeeche First Nation that this is not the way a process should normally work but, in our case, today we have a bit of an anomaly. We've also heard comments about consultation by the KFN and I think in, also, response to a board member's question on consultation and the town of Hay River recognizes that consultation is always something that could be improved upon. After

going through a process, one should take from that some lessons. This is certainly a learning experience the town's recognized for future applications. But nevertheless, Mr. Chairman, we would submit that people are generally satisfied with this particular application. Certainly, despite publications with respect to this public hearing, there has not been any sort of wide spread public concern or expressions of refusal outside of some of the comments by the registered intervener. That is because this project is generally seen to be a benefit to the environment and to the Hay River community.

The board has heard that there are contaminated sites in this area that are not being cleaned up. One of the factors there is the lack of an approved facility. There's also evidence that you heard, there will be more spills in this area as a function of the activity in the area. We have operating sites today in the Hay River watershed which do not nearly have the safeguards built into them that this particular facility does which is not operating. We listened closely to the comments by the Elder from KFN of the importance to help each other, of comments such as with respect to old mine sites, that we should not leave things and walk away. That is precisely what this project will do. It will help the entire Hay River area and it is also the responsible thing to do with contaminated sites which seem to be a function of our current society.

With respect to the technical issues, Mr. Chairman, this facility is well designed. It's properly located. We're not disturbing a new area. This is a disturbed site which the treatment pad is located on. It has a natural synergy in being next to a landfill to use the material as cover. The management practice that you've heard has been proven. There's nothing experimental here. It's proven and it works and it's carried out by somebody that has experience in doing it. Certain RWED agrees and encourages other communities to have such a facility. We would submit that there is no need for any further studies or any direction to further assessment because, certainly, there'd be nothing further to be gained. This project has been analyzed. I think there have been questions raised through the application process and certainly through these hearings which can be well addressed through the terms of the amended license. We submit that it's clearly in the public interest to approve this application and start treating the backlog of contaminated soils which exist in this area.

We thank the board for their consideration of the evidence and the application of the town.

Chairman: Thank you Mr. Kruhlak. Are there any closing comments from members of the board? Ms. Stewart? No. Okay.

I've just a few words. I wanted to thank everyone for participating today. The board will be transcribing these proceedings. Upon receipt of those transcriptions, we'll review the evidence submitted. Also, the map Mr. Pittman's undertaken to deliver to us and we will work expeditiously to come to a decision and communicate that to interested people.

So I would like to, again, thank everyone for participating and adjourn the hearing.

ADJOURNMENT