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NUNAVUT WATER BOARD
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NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

Draft

Industrial Supplemental Information Guideline (SIG) for Hydrocarbon Impacted Soil Storage and Landfarm Treatment Facilities (I3)

Date of Issuance: February 2010

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1.0 Introduction

This Supplemental Information Guideline (SIG) is for applicants seeking a water licence for hydrocarbon impacted soil storage and landfarm treatment facilities which is an undertaking classified as industrial in accordance with the *Northwest Territories Water Regulations* (NTWR or Regulations).

Supplemental information is required as part of the water licence application in accordance with section 48(2) of the Nunavut Waters Nunavut Surface Rights Tribunal Act (NWNSRTA or Act) which states:

“An application, except in relation to a cancellation, shall be accompanied by the information and studies concerning the use of waters or the deposit of waste that are required for the Board to evaluate the qualitative and quantitative effects of the use or the deposit on waters.”

Also, in accordance with section 48(3) of the Act, on the filing of an application, the Board may provide guidelines to the applicant respecting the information to be provided by the applicant in respect of any matter that the Board considers relevant, including the following:

- a) the description of the use of waters, deposit of waste or appurtenant undertaking, as the case may be;
- b) the qualitative and quantitative effects of the use of waters or the deposit of waste on the drainage basin where the use is to be undertaken or the deposit is to be made, and the anticipated impact of the use or deposit on other users;
- c) the measures the applicant proposes to take to avoid or mitigate any adverse impact of the use of waters or the deposit of waste;
- d) the measures the applicant proposes to take to compensate persons, including the designated Inuit organization, who are adversely affected by the use of waters or the deposit of waste;
- e) the program the applicant proposes to undertake to monitor the impact of the use of waters or the deposit of waste;
- f) The interests in and rights to lands and waters that the applicant has obtained or seeks to obtain; and
- g) the options available for the use of waters or the deposit of waste.

To provide further guidance for these requirements, as well as the requirements of section 6(2) of the Regulations which outlines more specific information requirements for proposed undertakings, the NWB has developed Supplemental Information Guidelines (SIGs or Guidelines).

The SIGs are designed in spreadsheet format to facilitate the development of a concordance table that cross references the requirements of the SIG with the documents that make up the water licence application. The tables in the following five (5) worksheets include columns for the applicant to enter information regarding the applicability of the requirement to the proposed undertaking; the title, author, and date of the document where information to address the requirement can be found; the electronic file name of the document; as well as the section of the document where the information can be found. Specific information about the proposed undertaking should not be inserted into these spreadsheets.

The applicant must complete the yellow sections of the SIG and submit the completed SIG along with the documents that address the requirements of the SIG to the NWB.

Further to this SIG, the applicant is referred to the NWB's *Guide 4 - Completing and Submitting a Water Licence Application for a New Licence*. This Guide provides more details regarding completion of the NWB's minimum information requirements, information required to complete plans including designs and reports, executive summaries and translations, as well as how, when and who to contact when submitting a water licence application.

Following submission of a water licence application, the NWB will determine whether the application is complete. If the NWB determines that an application is materially incomplete, meaning that items included in Section 2: Minimum Application Requirements are missing, the applicant will be informed by the NWB that their application has been rejected. In other cases, NWB staff will correspond with the applicant to resolve deficiencies before proceeding.

The NWB cannot issue, amend, or renew a licence where there is an applicable, approved land use plan until the NPC's requirements under the NLCA have been addressed regarding land use planning (Article 11). In addition, the NWB cannot issue, amend, or renew a licence where the appurtenant undertaking requires screening by NIRB in accordance with Part 4 of Article 12 of the NLCA until NIRB has completed its screening. Furthermore, notwithstanding sections 13.5.5 or 12.10.2 of the NLCA, where the appurtenant undertaking requires a review under Part 5 or Part 6 of Article 12 of the NLCA, the Board may not issue, amend, or renew a licence until NIRB has issued a project certificate. For this reason, the applicant must provide the NWB with written confirmation that both NPC's and NIRB's requirements under the NLCA have been addressed.

Following completion of development impact assessment in accordance with Article 12 of the NLCA, the NWB may issue additional Project Specific Information Requirements (PSIR) to the applicant.

The applicant is referred to Appendix A of these Guidelines for a list of additional documents, guidelines, legislation and standards that may be of use to the applicant in preparing the information to address this SIG.

Submission of the information required by this SIG does not relieve the applicant from confirming and following up on other information requirements which may be required during the regulatory process.

2.0 Minimum Application Requirements (Application Checklist)

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	NWB Concordance Assessment
Minimum Application Requirements	1	General Water Licence Application Form (see the NWB's <i>Guide 4: Completing and Submitting a Water Licence Application for a New Licence</i>) or Application for Water Licence Amendment Form, if appropriate (see NWB's <i>Guide 7: Licensee Requirements Following the Issuance of a Water Licence</i>).	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	N/A	
	2	Information required to satisfy the requirements of the SIG including plans, reports and designs.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings	
	3	Executive summary in english.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 3 - PIN-E Cape Peel Executive Summary (English).pdf	Appendix 3 - PIN-E Cape Peel Executive Summary (English, Inuinnaqtun, Inuktitut)	
	4	Translated executive summary in appropriate language and dialect.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 3 - PIN-E Cape Peel Executive Summary (Inuinnaqtun).pdf Appendix 3 - PIN-E Cape Peel Executive Summary (Inuktitut).pdf	Appendix 3 - PIN-E Cape Peel Executive Summary (English, Inuinnaqtun, Inuktitut)	
	5	Application fee.	NA	Application is from the Crown				
	6	Water use fee.	NA	Application is from the Crown				
	7	A table indicating concordance of the application and supporting documents to the Guidelines. These generic Guidelines are provided in excel as a tool for applicants to provide the necessary concordance table.	Y					

Qualifications:

- 1 Applications that do not include all of the items listed above will be returned to the applicant as incomplete with a request for the deficient information.
- 2 If more than one licensable activity or facility is proposed that requires a water licence (eg. multiple water sources, waste deposits, structures, crossings, etc.) the required information must be provided for each activity or facility.
- 3 Information between all documents that make up the application package must be consistent and must be accurately cross referenced.
- 4 The application must distinguish between recommendations or options and actual commitments to chosen alternatives.
- 5 For additional guidance regarding the submission of electronic documentation, see the NWB's *Guide 6: Electronic Documentation: Submissions and Registry*.
- 6 The applicant, where practical, may combine components of the information requested in the SIG into more concise plans to provide clarity and eliminate duplication. If this practice is considered, then the applicant must clearly outline, through proper referencing and clearly detailed statements, how the NWB should consider the documents that have combined elements of information. Information management is the responsibility of the applicant.
- 7 The applicant must submit a concise executive summary of the application package. In addition, the Applicant shall submit an executive summary for each separate supporting document, report or study. All executive summaries shall be provided in English, Inuktitut and/or Inuinnaqtun (where applicable).

The applicant must complete the yellow columns of the worksheet(s). Blue columns are for NWB use only.

3.0 General Water Licence Application

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Applicant	1	Provide the full name of the applicant and contact person including contact information (position, phone number, address, fax number and email address).	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 1		
Applicant Representative	2	Provide the name and contact information of any party submitting the application on behalf of the applicant (including position, phone number, address, fax number and email address).	NA	Applicant is submitting					
	3	Provide a signed letter authorizing a party to be the applicant's representative in the licensing process.	NA	Applicant is submitting					
Project Name	4	Provide the name of the project.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 3		
Location of Undertaking	5	Provide coordinates of the project extents	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 4		
	a	Provide location by Latitude and Longitude.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 4		
	b	Provide location by UTM coordinates, if available.	NA						
Map	6	Provide a map at a 1:50,000 scale based on the National Topographic Series indicating the location of the undertaking, watercourses and the location of waste deposits including soil, fuel, and chemicals. Additional maps at various scales may be provided if those maps will provide additional information or clarification. All maps must indicate the scale, map sheet number, and the location of north.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 5 - Site Maps & Drawings		
Nature of Interest in the Land	7	Provide the nature of the interest in the land associated with the proposed undertaking, including:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 6		
	a	Sub-surface leases from Nunavut Tunngavik Incorporated (NTI) and/or Indian and Northern Affairs Canada (INAC) as well as surface authorizations from INAC for crown land use, a Designated Inuit Organization (DIO) for Inuit Owned Land (IOL) use, or the Government of Nunavut for Commissioner's land use. Provide the permit or licence	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 6		
	b	The date or expected date of issuance of any authorization and the date of expiry.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 6		
	8	Indicate whether the applicant is the name of the entity holding the authorization for the interest in the land and if not, provide the name of the entity holding the authorization.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 1		

3.0 General Water Licence Application

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
NPC Determination	9	Provide written confirmation from the NPC confirming that NPC's requirements under the NLCA regarding land use plan conformity (Article 11 of the NLCA) have been addressed.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 10 - PIN-E Confirmation from NPC - No Conformity Check Required.pdf	Appendix 10 - Supplementary Information & Confirmation from Nunavut Planning Commission That a Conformity Check is Not Required		
NIRB Determination	10	Provide written confirmation from the NIRB confirming that NIRB's requirements under the NLCA regarding development impact assessment (Article 12 of the NLCA) have been or are in the process of being addressed. Documentation may include:	NA	NIRB submitted concurrently				Jan-11	
	a	Written confirmation from NIRB that the project proposal does not require screening;	NA	NIRB submitted concurrently				Jan-11	
	b	NIRB's screening determination;	NA	NIRB submitted concurrently				Jan-11	
	c	If a review is required, NIRB's recommendation to the Minister regarding the type of review;	NA	NIRB submitted concurrently				Jan-11	
	d	If a review is required, the Minister's written decision regarding the review of the development proposal;	NA	NIRB submitted concurrently				Jan-11	
	e	If a review is required, NIRB's project certificate;	NA	NIRB submitted concurrently				Jan-11	
	11	Provide a list of activities requested for exception in accordance with NLCA s. 12.10.2;	NA	NIRB submitted concurrently				Jan-11	
Description of Undertaking	13	Provide a complete description of the undertaking with detailed site plan(s) of all infrastructure. Include maps and/or aerial photos with scales that allow the determination of distances between the objects depicted. Differentiate any temporary components from permanent components. Consider the following in providing the description:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	a	Barriers to prevent site access	Y	Remote Location	PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	b	Existing on site infrastructure	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	c	Existing and proposed drainage modifications such as berms (natural or constructed) and diversion ditches	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	d	Quarries / borrow pits	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		

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Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Other Applicable Supplemental Information Guidelines		e Water use for landfarm operations if applicable	Y	Freshwater Lake	PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
		f Transportation access routes and details of any water course crossings (see the NWB's SIG for General Water Works (M1))	NA	None					
	14	Indicate whether any other Supplemental Information Guidelines apply to the undertaking including the following:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application	2. PIN-E Nunavut Water Board (NWB) Water Licence Application	Section 11		
		a Hydrostatic testing	NA						
		b Tannery	NA						
		c Tourist / remote camp	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	3. PIN-E Nunavut Water Board Tourist/Remote Camp SIG.pdf			
		d Landfarm and on-site storage of hydrocarbon contaminated soil							
		e Onshore oil and gas exploration drilling	NA						
		f Mineral exploration/ remote camp	NA						
		g Advanced exploration	NA						
		h Mine development	NA						
		i Municipal	NA						
		j General Water Works	NA						
		k Power	NA						
Options	15	Provide a brief explanation of the alternative methods and locations that were considered to carry out the project.	NA						
Water Use	16	Provide a detailed description of all types of water uses including: (See the NWB definition of "use" in the NWB Guide 2: Terminology and Definitions)	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements		
	a	Obtain water for domestic purposes	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements		
	b	Obtain water for industrial purposes	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements		
	c	To cross a water course	NA						
	d	To alter the flow of water, or store water	NA						
	e	Flood control	NA						
	f	To divert a watercourse	NA						
	g	To modify the bed or bank of a watercourse	NA						
	h	Others:	NA						
	17	If any of the sub categories c through g of item 16 of this Section apply to the project, please refer to the NWB's SIG for General Water Works (M1).	NA						

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Water Use: Quality and Quantity	18	Provide the following for each type of water use described in item 16 of this section:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements		
	a	The source of water including the name of the water body and the location of the water source as shown on a map;	Y		PIN-E Nunavut Water Board (NWB) Water	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR	Appendix 2 - Nunavut Impact Review Board		
	b	A description of the quality of the water from the source as well as the available capacity of the water source;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements		
	c	The estimated amount of water to be taken from each source and the method of extraction including specific pumping rates, pumping procedures and potential for draw down;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements		
	d	The estimated amount of water to be returned to the source; and	NA	None					
	e	Methods to ensure the quality of the water returned to source is of a quality acceptable to the NWB.	NA	None					
Waste Disposal	19	See section 5 of this SIG for specific requirements							
Waste Disposal: Quality and Quantity	20	See section 5 of this SIG for specific requirements							
Other Authorizations	21	Provide a list of any authorizations required in relation to the project in addition to the water licence. For each additional authorization required for the project, provide the name of the authorization, the administering agency, the project activity requiring the authorization, the date or expected date of issuance and the date of expiry. Provide a description of how those authorizations may affect the NWB's water licensing process.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 6		
	22	Provide a timetable for filing the appropriate plans and procedures required by government parties.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 6		
	23	Indicate whether the applicant/ licensee holds any existing water licences. If applicable, provide the licence number and expiry date of any existing water licences.	NA						
Predicted Environmental Effect and Proposed mitigation measures	24	Identify the potential effect of water use and waste disposal on the following components:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application	Appendix 6 - PIN-E Environmental Assessment Screening	Appendix 6 - Environmental Screening		
	a	Groundwater and Surface Water including:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf	Appendix 6 - Environmental Screening		
		changes in flow (including seasonal rate of flow)	NA						
		quantity	NA						
		quality	NA						

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	b	Land including:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf	Appendix 6 - Environmental Screening		
		geologic structure change	NA						
		soil contamination	NA						
		compaction, settling and erosion	NA						
		alteration of the permafrost regime	NA						
		riparian zone loss	NA						
	c	Vegetation including:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf	Appendix 6 - Environmental Screening		
		species composition and abundance	NA						
		non-native species introduction	NA						
		accumulation of toxins and heavy metals (in relation to remediation objectives for closure)	NA						
	d	Aquatic Ecosystems including:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf	Appendix 6 - Environmental Screening		
		fish	NA						
		benthic invertebrates	NA						
		plankton	NA						
	25	See sections 4, 5 and 6 of this SIG for additional information requirements							
Existing and Other User Water Rights	26	Provide the names, addresses, and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licences for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.	NA	No users					
	27	Provide a description of any potential effects of the project on the persons or properties identified in item 26 of this section.	NA	No users					
	28	Provide a description of the measures incorporated into the project design to mitigate effects of the project on the persons or properties identified in item 26 of this section.	NA	No users					
	29	Indicate whether compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.	NA	No users					
Inuit Water Rights	30	Provide a description of any potential effects of the project on the quality, quantity, or flow of waters flowing through Inuit Owned Land (IOL).	NA						
	31	Provide a description of the measures incorporated into the project design to mitigate effects of the project on the quality, quantity, or flow of waters flowing through IOL.	NA						

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Consultation	32	Indicate whether an agreement to pay compensation for any loss or damage has been reached with one or more Designated Inuit Organization (DIO); or if the parties have been unable to reach an agreement on compensation	NA						
	33	Provide a summary of any consultation meetings including when the meetings were held, where and with whom.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 20		
	34	Provide a summary of the results of consultation meetings including a list of concerns expressed and measures proposed to address concerns.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 20		
Security	35	Provide a financial security assessment that includes the following:	NA						
	a	An estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking;	NA						
	b	The cost of having the necessary reclamation work done by a third-party contractor if the operator defaults;	NA						
	c	Contingency factors appropriate to the particular work to be undertaken.	NA						
Abandonment and Restoration	36	Provide plans for the abandonment and restoration of facilities.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	37	Provide a description of all remediation plans and remediation objectives.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	38	Provide a list and description of any existing abandoned or restored site facilities.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
Financial Information	39	Provide a statement of financial responsibility.	NA						
	40	If the applicant is an entity for which audited financial statements are issued, a copy of the most recent audited financial statements must be attached to the statement of financial responsibility.	NA						
	41	Provide the name of the corporation, limited company or other business entity, with a list of the officers of the company and a copy of the Certificate of Incorporation or evidence of registration of the company name.	NA						
Studies and Designs	42	Provide a list of studies, reports and plans relevant to the application that have been undertaken to date including:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 9 - PIN-E Cape Peel List of Additional Documents.pdf	Appendix 9 - List of Additional Documents		

3.0 General Water Licence Application

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
	a	Design rational, design requirements, design criteria, design parameters, design standards/analysis/method;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	b	Design assumptions and the limitations associated with such design assumptions;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	c	The inclusion of clear, definable engineering qualifiers with all design drawings and reports;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	d	Site specific data and analysis to support the design and management decisions made;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 6 - PIN-E Environmental Screening.pdf	Appendix 4 - Remedial Action Plan Appendix 6 - PIN-E Environmental Screening		
	e	Materials that appropriately delineate the particulars of a design or plan.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	43	Provide construction methods and procedures regarding how infrastructure will be put in place on-site.	NA	To be determined by contractor				Mar-11	
	44	Provide a timetable for submission of preliminary and final-for-construction engineered designs (note: for construction designs are required for NWB approvals).	NA					Mar-11	
	45	See sections 4 and 5 of this SIG for additional information requirements							
Proposed Time Schedule	46	Provide the proposed start and completion dates for each phase of development (construction, operation, closure and post closure) and any anticipated periods of seasonal shut down.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 7 - PIN-E Cape Peel Project Schedule.pdf	Appendix 7 - Project Schedule		
Proposed Term of Licence	47	Provide a proposed term of licence including the expected date of licence issuance and the expected date of licence expiry.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 25		
Annual Reporting	48	Provide detailed information regarding the content of annual reports and a proposed outline or template of the annual report. The annual report should include the following:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf	Section 26		
	a	Water related monitoring results;	NA	NWB Guide to be used					
	b	Comparison of water quality and quantity monitoring data with the water quality and quantity predictions presented in the application;	NA	NWB Guide to be used					

3.0 General Water Licence Application

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
	c	A description of how any conditions in the NIRB screening decision related to the NWB mandate have been implemented;	NA	NWB Guide to be used					
	d	Project changes under adaptive management;	NA	NWB Guide to be used					
	e	Any actions taken in response to direction provided by the Inspector.	NA	NWB Guide to be used					
Renewals and Amendments	49	If the application is for a renewal or amendment of an existing licence provide the water licence number and the date of water licence expiry.	NA	Original application					
	50	If the application is for a renewal or amendment of an existing licence, provide a compliance assessment/status report. This report must document the status of compliance for each condition of the existing water licence taking into consideration inspector dialogues and inspector directions, responses to inspector dialogues and inspector directions, spills that may have occurred, and any reporting requirements. The report must indicate when facilities were inspected by regulatory agencies and list any spills that may have occurred including a description, location shown on a map, and the action taken to address the affected area.	NA	Original application					

4.0 Baseline Information

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Site Characterization	1	Provide a description of the site using current detailed topographic survey maps and/or aerial photos where applicable. Maps, diagram, and aerial photos must include accurate scales that allow the determination of distances between the objects depicted. The description must consider:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	a	location of fuel and chemical storage facilities	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	b	location of soil landfarm active treatment facilities	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	c	location of surface water bodies, particularly potable water sources and fish bearing waters	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	d	location of site access routes	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	e	surface water drainage patterns	NA						
	f	groundwater flow and direction	NA						
	g	groundwater regime	NA						
	h	surface water quality	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements		
	i	groundwater quality	NA						
	j	potential seepage in the area of the undertaking	NA						

2	Provide an evaluation of the soil characteristics to determine whether the soil, if contaminated, is well-suited for landfarming. Consider the following characteristics:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
a	microbial population density	NA						
b	soil pH	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
c	moisture content	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
d	nutrient concentration	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
e	soil type	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
3	Provide a description of the site geology including:	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Appendix E - Geophysical Report Appendix F - Geotechnical Test Pit Logs		
a	the thickness of underlying soil	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Appendix E - Geophysical Report Appendix F - Geotechnical Test Pit Logs		
b	presence of bedrock	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Appendix E - Geophysical Report Appendix F - Geotechnical Test Pit Logs		
c	degree of bedrock fracturing	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Appendix E - Geophysical Report Appendix F - Geotechnical Test Pit Logs		
4	Provide a description of the permafrost regime including:	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Appendix E - Geophysical Report Appendix F - Geotechnical Test Pit Logs		

a	the depth of the permafrost active layer	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Appendix E - Geophysical Report Appendix F - Geotechnical Test Pit Logs		
b	permafrost characteristics that may impact the construction or operation of the facility such as frost heave, presence of ice lenses, evidence of permafrost degradation	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Appendix E - Geophysical Report Appendix F - Geotechnical Test Pit Logs		
5	Provide a climatic assessment of the site including:	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Section 2.3.2 Climate		
a	precipitation and temperature profiles	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Section 2.3.2 Climate		
b	a discussion concerning the likelihood of flood events that could disrupt operations or threaten water quality and whether the local landforms may encourage or discourage such events (ie. a facility situated in an active flood plain)	NA						
6	Provide the slope of the land underlying the facility	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
7	Provide a description of the results of any consultation with Elders regarding the collection of baseline data.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf	Appendix 6 - Environmental Screening		
8	Provide a description of the historical uses of the waters affected by the project.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf Appendix 8 - PIN-E Archaeological Impact Assessment.pdf	Appendix 6 - Environmental Screening Appendix 8 - Archaeological Impact Assessment.pdf		
9	Provide a description of any traditional uses of water in the project area.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf Appendix 8 - PIN-E Archaeological Impact Assessment.pdf	Appendix 6 - Environmental Screening Appendix 8 - Archaeological Impact Assessment.pdf		
10	Indicate whether fish, shellfish, or other wildlife are present and harvested in or near the project area and, if applicable, indicate the species harvested and the level of harvest.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf	Appendix 6 - Environmental Screening Appendix 8 - Archaeological Impact Assessment.pdf		
11	Provide a description of the geochemical tests which have been (or will be) performed on quarry or borrow material to determine the relative acid generation and contaminant leaching potential. Outline methods used (or to be used) and provide test results in an attached report (ie. static test, kinetic tests).	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 2 - PIN-E Cape Peel NIRB Part 2 PSIR Form (English) - Signed.pdf	Appendix 2 - Nunavut Impact Review Board Part 2 Form - Project Specific Information Requirements		

Fisheries	12	If applicable, provide baseline data and an evaluation of baseline data describing fish and fish habitat in the project area. The applicant is advised to consult with DFO regarding fish and fish habitat related issues and to visit DFO's website at http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm . Indicate	NA						
Studies	13	Provide a list of baseline studies, reports and plans relevant to the application that have been undertaken to date or are being planned including:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 9 - PIN-E Cape Peel List of Additional Documents.pdf	Appendix 9 - PIN-E Cape Peel List of Additional Documents		
	a	Hydrological and hydrogeological studies;	NA	None					
	b	Geological studies	NA	None					
	c	Geotechnical studies	Y		Phase III Environmental Site Assessment PIN-E Cape Peel Point Intermediate DEW Line Site, AECOM Canada Limited, 2009	Not included, can be provided upon request.	Appendix E - Geophysical Report Appendix F - Geotechnical Test Pit Logs		
	d	Traditional use studies;	NA	None					
	e	Aquatic studies;	NA	None					
	f	Meteorological studies;	NA	None					

5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Waste Disposal	1	Provide a detailed description of all types of waste and all forms of waste disposal including: (see the NWB definition of Waste in the NWB <i>Guide 2: Terminology and Definitions</i>)	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf Appendix 4 - PIN-E Remedial Action Plan.pdf	Section 15, Appendix 4 - Remedial Action Plan		
	a	Contaminated soil	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf Appendix 4 - PIN-E Remedial Action Plan.pdf	Section 15, Appendix 4 - Remedial Action Plan		
	b	Contaminated snow and ice	NA	None					
	c	Wastewater	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf Appendix 4 - PIN-E Remedial Action Plan.pdf	Section 15, Appendix 4 - Remedial Action Plan		
	d	Others:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf Appendix 4 - PIN-E Remedial Action Plan.pdf	Section 15, Appendix 4 - Remedial Action Plan		
Waste Disposal: Quality and Quantity	2	For each type of waste, provide the composition and quantity generated. Also provide the location, rate, timing, frequency and duration of the deposit.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf Appendix 4 - PIN-E Remedial Action Plan.pdf	Section 15, Appendix 4 - Remedial Action Plan		
	3	For each type of waste, provide the proposed methods and processes for collecting, storing, treating and discharging the waste. Indicate the capacity of these facilities.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf Appendix 4 - PIN-E Remedial Action Plan.pdf	Section 15, Appendix 4 - Remedial Action Plan		
	4	Provide a description of any existing or proposed measures to minimize the production of wastes.	NA	None					
Hydrocarbon Impacted Soil Storage and Treatment	5	Indicate what products are used on site that if spilled may be treated in the landfarm	NA	None					
	6	Provide an estimate of the volume of material(s) to be stored and/or treated	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	2. PIN-E Nunavut Water Board (NWB) Water Licence Application (Signed).pdf Appendix 4 - PIN-E Remedial Action Plan.pdf	Section 15, Appendix 4 - Remedial Action Plan		
	7	Indicate whether there are any existing landfarm facilities on site	NA	None					

5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
	8	Indicate whether there have been any operating problems with existing landfarm facilities.	NA	None					
	9	Provide a description of the general condition of any existing landfarm and provide an explanation if it is unsatisfactory.	NA	None					
Identification	10	Indicate whether there are signs identifying any past or present landfarm sites	NA	None					
Modifications	11	Indicate whether any changes are planned for existing landfarm facilities. If applicable, see items 13 - 15 of this section.	NA	None					
	12	If the landfarm is for a municipality, indicate whether the community believes changes are needed to the landfarm facility. If applicable, provide a description.	NA	None					
Proposed Facilities	13	Provide design plans for proposed facilities including descriptions of the following:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	a	Design parameters including seismic design if applicable.	NA						
	b	The capacity of the facility	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	c	Retaining structures	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	d	Spillways	NA	None					
	e	Barrier or liner systems including properties and installation details	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	f	Leachate and/or runoff control systems including sumps, pumps, storage ponds/tanks, and any other measures	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	g	Identification of discharge point(s).	NA	To be determined by contractor				Mar-11	
	h	Method of discharge.	NA	To be determined by contractor				Mar-11	
	i	Proposed discharge effluent criteria;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	j	Details regarding direction and path of wastewater flow from the area or infrastructure	NA						
	k	Existing and proposed drainage modifications such as berms (natural or constructed) and diversion ditches	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		

5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
	l	Construction schedule and sequence taking into account any timing restrictions.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 7 - PIN-E Cape Peel Project Schedule.pdf	Appendix 7 - PIN-E Cape Peel Project Schedule		
	m	Construction methods.	NA	To be determined by contractor				Mar-11	
	n	Equipment to be used.	NA	To be determined by contractor				Mar-11	
	o	A description of the source, type, and composition of the material to be used in construction.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	p	Water quality and environmental monitoring stations and associated equipment (design, placement, etc.)	NA	To be determined by contractor				Mar-11	
	q	Construction monitoring plans	NA	To be determined by contractor				Mar-11	
	r	Construction quality assurance and quality control measures.	NA	To be determined by contractor				Mar-11	
	s	Operation and maintenance plans	NA	To be determined by contractor				Mar-11	
	t	Contingency plans to address the possibility that contaminated materials exceed expected volumes and/or sump volumes are exceeded.	NA	To be determined by contractor				Mar-11	
	u	Closure plans (see items 21-23 of this section)	NA	To be determined by contractor				Mar-11	
	v	Design drawings in plan and profile, drawn to scale, including all relevant dimensions.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf Appendix 5 - PIN-E Site Maps & Drawings.pdf	Appendix 4 - Remedial Action Plan Appendix 5 - Site Maps & Drawings		
	14	Final plans and drawings for construction must be stamped by a Professional Engineer licensed to practice in Nunavut. (See Section 7 of the NWB's <u>Guide 4: Completing and Submitting a Water Licence Application</u> for more information regarding design drawings).	NA	To be determined by contractor				Mar-11	
Predicted Environmental Effects and Proposed mitigation measures	15	Provide detailed treatment plans for discharges from any waste treatment facility. Waste treatment plans should include estimates of treatment efficiency for each parameter of concern.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman,	Appendix 6 - PIN-E Environmental Assessment Screening Report.pdf	Appendix 6 - Environmental Screening		
	16	Clearly outline proposed discharge criteria, how the criteria were developed, standards to be applied, and how these criteria will be used to prevent ecological effects in the receiving environment.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	17	Provide a description of measures to prevent damage to any liner or barrier system during mechanical operation of the landfarm	NA	To be determined by contractor				Mar-11	
Operations and Maintenance	18	Provide procedures to determine whether soils may be accepted at the Facility including	NA	None					
	a	Chemical, physical and biological characterization of the soil and the associated hydrocarbon and metal contaminant concentrations	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		

5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert <u>Title, Author and Date of Document</u> where information is provided	Insert <u>electronic file name of document</u> where information is provided	Insert <u>Section of document</u> where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
	b	Treatability studies to determine the viability of landfarm treatment	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	c	Sampling frequency and number of samples per volume of soil accepted	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	19	Provide procedures to be used during active landfarming operations in the active treatment cells	NA	To be determined by contractor				Mar-11	
	a	Treatment cell development and material placement therein	NA	To be determined by contractor				Mar-11	
	b	Contaminated soil thickness in treatment cells	NA	To be determined by contractor				Mar-11	
	c	Method of mechanical aeration in treatment cells	NA	To be determined by contractor				Mar-11	
	d	Oversize material management	NA	To be determined by contractor				Mar-11	
	e	Surface water management, leachate containment and/or treatment, and site grade planning	NA	To be determined by contractor				Mar-11	
	f	Process water management and treatment prior to discharge	NA	To be determined by contractor				Mar-11	
	g	Site volume and operational monitoring programs	NA	To be determined by contractor				Mar-11	
	h	Dust control programs	NA	To be determined by contractor				Mar-11	
	i	Staff operational training programs	NA	To be determined by contractor				Mar-11	
	20	Provide Soil Quality Remediation Objectives (SQROs) to which the applicant is intending to achieve.	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
Closure	21	Provide a description of closure procedures	NA	To be determined by contractor				Mar-11	
	22	Provide details regarding the ultimate deposition of treated soils	NA	To be determined by contractor				Mar-11	
	23	Provide a disposal plan for soils contaminated with bioremediation - unsuitable compounds, or for soils that do not respond well to the proposed landfarming treatment	NA	To be determined by contractor				Mar-11	

5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Fisheries	24	If applicable, provide a description of any potential impacts to fish and/or fish habitat. (Indirect effects may include project effects, water quality, or aquatic organisms. Direct effects may include degradation or alteration of fish habitat). The applicant is advised to consult with DFO regarding fish and fish habitat related issues and to visit DFO's website at http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm .	NA	None					
Studies	25	Provide a list of studies, reports and plans relevant to the application that have been undertaken to date or are being planned, including design and management decisions. Studies, reports and plans may include:	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 9 - PIN-E Cape Peel List of Additional Documents.pdf	Appendix 9 - PIN-E Cape Peel List of Additional Documents		
	a	Options analysis;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	b	Weather data for purposes of design;	Y		PIN-E Nunavut Water Board (NWB) Water Licence Application Package, Mark Yetman, November 2010	Appendix 4 - PIN-E Remedial Action Plan.pdf	Appendix 4 - Remedial Action Plan		
	c	Fisheries assessment;	NA	None					
	d	Construction plan;	NA	To be determined by contractor				Mar-11	
	e	Construction quality assurance and quality control plan;	NA	To be determined by contractor				Mar-11	
	f	Operation and maintenance plan;	NA	To be determined by contractor				Mar-11	
	g	Contingency plan;	NA	To be determined by contractor				Mar-11	
	h	Closure plan;	NA	To be determined by contractor				Mar-11	
	i	Monitoring plans (see section 6);	NA	To be determined by contractor				Mar-11	

6.0 Monitoring

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Monitoring	1	Provide a Monitoring Plan including a description of the methods, procedures, standards, and schedules proposed. Monitoring may be required for water use; effluent, surface and/or groundwater water quality, quantity, or flow; ground temperature; ground settlement; etc.	NA	To be determined by contractor				Mar-11	
	2	Indicate who is responsible for sampling including that person's position, contact information and level of training.	NA	To be determined by contractor				Mar-11	
	3	Indicate the name and contact information of the certified laboratory performing the analysis of samples.	NA	To be determined by contractor				Mar-11	
	4	Provide an Inspection Plan including a description of the methods, procedures, standards, and schedules proposed.	NA	To be determined by contractor				Mar-11	
	5	Provide a Quality Assurance/ Quality Control (QA/QC) Plan that addresses both field sampling and laboratory analysis.	NA	To be determined by contractor				Mar-11	
	6	Provide a summary table that details the monitoring plan. The table should include stations numbers, location, parameter(s) and frequency. Provide a map detailing the location of monitoring sites.	NA	To be determined by contractor				Mar-11	

APPENDIX A: ADDITIONAL SOURCE DOCUMENTS TO ASSIST THE APPLICANT

This appendix provides a list of reference documents including legislation, guidelines and standards that may be of use to the applicant in preparing the supplemental information.

Federal Legislation

- *Canadian Environmental Protection Act, [1999, c.33]*
- *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, [SOR/2008-197]*
- *Environmental Emergency Regulations, [SOR/2003-307]*
- *Fisheries Act, [R.S.C. c. F-14]*
- *Navigable Waters Protection Act, [R.S. 1985, c. N-22]*
- *Navigable Waters Bridges Regulations, [C.R.C., c. 1231]*
- *Navigable Waters Works Regulations, [C.R.C., c. 1232]*
- *Nunavut Land Claims Agreement*
- *Nunavut Waters and Nunavut Surface Rights Tribunal Act, [2002, c.10]*
- *Northwest Territories Waters Regulations, [SOR/93/303]*
- *Territorial Lands Act, [R.S. 1985, c. T-7]*
- *Territorial Land Use Regulations, [C.R.C., c. 1524]*
- *Territorial Quarrying Operations, [C.R.C., c. 1527]*
- *Transportation of Dangerous Goods Act, [1992, c.34]*
- *Transportation of Dangerous Goods Regulations, [SOR/2001-286]*

Territorial Legislation

- *Environmental Protection Act (Nunavut), [R.S.N.W.T. 1988, c. E-7]*

- *Used Oil and Waste Fuel Management Regulations, [N.W.T. Reg. 064-2003]*
- *Safety Act, [R.S.N.W.T. 1988, c. S-1]*
- *Work Site Hazardous Materials Information System Regulations, [R.R.N.W.T. 1990 c. S-2]*
- *Transportation of Dangerous Goods Act, [R.S.N.W.T. 1988, c. 81 (Supp.)]*
- *Transportation of Dangerous Goods Regulations, [1991, N.W.T. Reg. 095-91]*

Guidelines and Policies

- CCME – *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems containing Petroleum and Allied Petroleum Products (2003);*
- CCME – *Canadian Environmental Quality Guidelines Guidelines (CEQG) and Canadian Water Quality Guidelines for the Protection of Aquatic Life;*
- CCME – *Canada-Wide Standards for Petroleum Hydrocarbons in Soil (CWS-PHC) (2008);*
- CCME – *Subsurface Assessment Handbook for Contaminated Sites (1994);*
- CCME – *Canada-Wide Standards for Dioxins and Furans (2001);*
- CCME – *Canada-Wide Standards for Mercury Emissions (2000);*
- Canadian Standards Association (CSA) *Environmental Site Assessment Standards Z768-01 (2001) and Z769-00 (2000) for Phase 1 and 2 ;*
- DFO – *Freshwater Intake End-of-Pipe Fish Screen Guideline (1995);*
- DFO – *Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (1998);*

- DFO – *Policy for the Management of Fish Habitat (2001);*
- DFO – *Operational Statements;*
- DFO - Other documents are available from DFO's website at <http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm>;
- EC – *Guidelines for the Preparation of Hazardous Material Spill Contingency Plans (1990);*
- GN – *Spill Contingency Planning and Spill Reporting in Nunavut. A Guide to the New Regulations.*
- GN – *Environmental Guideline for Contaminated Site Remediation (2002);*
- GN – *Environmental Guideline for General Management of Hazardous Waste in Nunavut (2002);*
- GN - *Environmental Guideline for Ozone Depleting Substances (2002);*
- GN - *Environmental Guideline for Waste Antifreeze (2002);*
- GN - *Environmental Guideline for Waste Asbestos (2002);*
- GN - *Environmental Guideline for Waste Batteries (2002);*
- GN - *Environmental Guideline for Waste Paint (2002);*
- GN - *Environmental Guideline for Waste Solvent (2002);*
- GN - *Guideline for the Management of Waste Lead and Lead Paint (2001);*
- GN - *Municipal Solid Wastes Suitable for Open Burning;*
- GN - *Disposal Guidelines for Fluorescent Lamp Tubes;*
- GN – *Occupational Health & Safety Guidelines (2006);*
- GNWT - *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories, (1992)*
- GNWT – *A Field Guide to Ice Construction Safety (2007);*

- *Guidelines for the Preparation of an Operations and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories*, Duong and Kent, 1996
- INAC – *Guidelines for Spill Contingency Planning (2007)*;
- INAC - *Quality Assurance (QA), Quality Control (QC) Guidelines for Use by Class "B" Licensees in Collecting Representative Water Samples in the Field and for Submission of a QA/QC Plan (1996)*;
- INAC – *A Policy Respecting the Prohibition of Bulk Water Removal from Major River Basins in Nunavut (2003)*;
- The proponent where applicable should consider the application of the Canadian Dam Association “*Dam Safety Guidelines*” (January 1999) in the design, construction, operation, monitoring, decommission and closure of dam infrastructure. (Referenced within the guidelines as CDA);
- *Workplace Hazardous Materials Information System (WHMIS)*;
- SAIC - *Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils*, Science Applications International Corporation (2005)

The NWB maintains a folder on its FTP site containing electronic copies of reference documents. Federal legislation may be found on the Department of Justice Canada website at <http://laws.justice.gc.ca/>. Territorial Legislation may be found on the Canadian Legal Information Institute's website at <http://www.canlii.org/>. The applicant is encouraged to consult with government agencies on technical issues and to obtain the most up to date copy of reference documents.

It is the applicant's responsibility to ensure that all relevant standards and guidelines are considered in the water licence application and to incorporate proper footnotes and references.

APPENDIX B: COMMONLY USED ACRONYMS

AA	Authorizing Agency
ABA	Acid Base Accounting
AMD	Acid Mine Drainage
AP	Acid Potential
A&R	Abandonment and Restoration
ARD	Acid Rock Drainage
ANFO	Ammonium Nitrate and Fuel Oil
BOD	Biological Oxygen Demand
BTEX	Benzene, Toluene, Ethyl-benzene and Xylene
CBOD	Carbonaceous Biological Oxygen Demand
CEA	Cumulative Environmental Assessment
CCME	Canadian Council Ministry of the Environment
CFU	Colony Forming Units
COD	Chemical Oxygen Demand
CWQS	Canadian Water Quality Standards
DFO	Department of Fisheries and Oceans
DIO	Designated Inuit Organization
DO	Dissolved Oxygen
DSG	Dam Safety Guidelines
DSI	Dam Safety Inspection
DSR	Dam Safety Review
EC	Environment Canada
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EPP	Emergency Preparedness Plan
ERSCP	Emergency Response Spill Contingency Plan
GN-DoE	Government Nunavut – Department of Environment
GN-CGS	Government Nunavut – Department of Community Government Service
GN-CLEY	Government of Nunavut - Department of Culture, Language, Elders and Youth
HDPE	High Density Polyethylene
FTP	File Transfer Protocol
IIBA	Inuit Impact Benefit Agreement
INAC	Indian and Northern Affairs Canada (also known as DIAND)
IOL	Inuit Owned Lands
IQ	Inuit Qaujimajatuqangit
IR	Information Request
LPA	Local Project Area
MSDS	Material Safety Data Sheet
MAC	Maximum Acceptable Concentration
MCE	Maximum Credible Earthquake
MDE	Maximum Design Earthquake
MMER	Metal Mining Effluent Regulations
NLCA	Nunavut Land Claims Agreement

NP	Neutralization Potential
NNP	Net Neutralization Potential
NPR	Neutralization Potential Ratio
NIRB	Nunavut Impact Review Board
NLCA	Nunavut Land Claims Agreement
NPC	Nunavut Planning Commission
NSA	Nunavut Settlement Area
NTI	Nunavut Tunngavik Incorporated
NTU	Nephelometric Turbidity Unit
NTWR	Northwest Territories Waters Regulations
NWB	Nunavut Water Board
NWNSRTA	Nunavut Waters Nunavut Surface Rights Tribunal Act
NWPP	Navigable Waters Protection Program
O&M	Operations and Maintenance
PAH	Polycyclic Aromatic Hydrocarbons
PC	Project Certificate
PCB	Poly-Chlorinated Biphenyl
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
POP	Persistent Organic Pollutant
PSIR	Project Specific Information Requirement
PVC	Polyvinyl Chloride
QA	Quality Assurance
QC	Quality Control
RBC	Rotating Biological Contactor
RPA	Regional Project Area
SIG	Supplemental Information Guidelines
SS	Suspended Solids
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TOC	Total Organic Carbon
TOD	Total Oxygen Demand
TS	Total Solids
TSP	Total Suspended Particulates
TSS	Total Suspended Solids
TK	Traditional Knowledge
UTM	Universal Transverse Mercator
UV	Ultraviolet Light
VOC	Volatile Organic Compound
VEC	Valued Ecosystem Component
WHMIS	Workplace Hazardous Material Information System