

**PERMIT APPLICATION
(DISPOSAL AT SEA)***

Application Identification

(OFFICE USE)

Name:

Number:

Permits are issued in accordance with Division 3 of Part 7 of the *Canadian Environmental Protection Act, 1999* (CEPA 1999). "Disposal" is defined in subsection 122 (1) of the Act. Information provided on this form will be used to evaluate the application for a permit.

The following activities are covered by this application (indicate those activities that apply to you):

- ☐ 1. Loading for the purpose of disposal
☐ 3. Disposal on ice
- XX 2. Disposal of waste or other matter
☐ 4. Other : _____

SUBSTANCE TO BE DISPOSED OF AT SEA:**Dredged Sediments****PART A — APPLICANT INFORMATION**

IDENTIFICATION			
1. NAME OF APPLICANT Public Works and Government Services Canada	2. TELEPHONE NO. (204) 771-0082	3. FAX NO. (204) 983-4444	
4. ADDRESS Box 1408, 100-167 Lombard Ave Winnipeg, MB R3C 2Z1	5. TYPE OF BUSINESS Federal Government Department responsible for capital construction projects for OGD's; in this case Small Craft Harbours Br of DFO		
6. PREVIOUS PERMITS — List the permit numbers of your previous permits, if any, relevant to this application. 4543-2-02896 Expires Aug 2012			
7. NAME OF INDIVIDUAL(S) RESPONSIBLE FOR PROPOSED ACTIVITY Mr John R Davidson, P.Eng.	8. TELEPHONE NO. (204) 771-0082	9. FAX NO. (204) 983-4444	EMAIL ADDRESS JOHN.DAVIDSON@PWGSC-TPSGC.GC.CA
10. NAME OF TECHNICAL CONTACT(S) FOR PROPOSED ACTIVITY Mr John R Davidson, P.Eng.	11. TELPHONE NO. (204) 771-0082	12. FAX. NO (204) 771-0082	EMAIL ADDRESS JOHN.DAVIDSON@PWGSC-TPSGC.GC.CA

PART B — INFORMATION ON THE PROPOSED ACTIVITY

GENERAL INFORMATION
13. DESCRIPTION OF THE ACTIVITY — Give a general description of the proposed activity and its purpose. As part of the overall harbour development activities at the Pangnirtung Harbour in Nunavut, dredging of the Inner Basin will be undertaken to provide an expanded inner harbour basin to accommodate an increased number of small vessels. Disposal of sediments dredged from the Inner Basin is intended to be disposed at an existing ocean based site in the Pangnirtung Fjord located approximately 2 Km northeast of the dredged site.

14. SUBSTANCE TO BE DISPOSED OF AT SEA — Indicate the substance to be disposed of at sea. See the applicable item in Part 1 or 2 of Appendix 1 for details of the information that must be included in your application.	15. TOTAL QUANTITY (m ³ or t) 20,000 m3 (place measure)
Dredged sediments	16. PROPOSED TERM OF PERMIT (maximum 1 year) <div style="display: flex; justify-content: space-between;"> from year month day </div> <div style="display: flex; justify-content: space-between;"> to 2012 08 01 </div> <div style="display: flex; justify-content: space-between;"> year month day </div> <div style="display: flex; justify-content: space-between;"> 2013 07 31 </div>

17. LOAD SITE (S) — For dredged or inert inorganic geological material, provide a detailed drawing showing the boundaries of each site to be dredged or excavated.			
NAME AND LOCATION OF SITE	LATITUDE	LONGITUDE	QUANTITY TO BE LOADED (m ³ or t)
Pangnirtung Harbour	66.149000 N	65.705000 W	20,000 m3

18. DISPOSAL SITE (S) — Provide a detailed drawing showing the boundaries of each disposal site.				
DISPOSAL SITE NAME (if any)	LATITUDE	LONGITUDE	DEPTH (m)	QUANTITY TO BE DISPOSED (m ³ or t)
Pangnirtung Fjord	66.170100 N	65.698900 W	140-150 m	20,000 m3
<p>Provide an estimate of the movement and dispersion in the water column and on the sea floor of the substance disposed of at sea. In the case of disposal at a new disposal site or disposal on ice, see the applicable item in Appendix 2 for details of additional information that must be included in your application.</p> <p>Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document for further response to Items 18 & 19 inclusive.</p> <div style="text-align: right; margin-top: 20px;"> NUMBER OF PAGES ATTACHED <input style="width: 30px; height: 15px;" type="text"/> </div>				

19. ROUTE FROM LOAD SITE TO DISPOSAL SITE — Attach a map, chart or good reproducible set of drawings that show the location of each load site and each disposal site. If the route is not direct, provide reasons and show the intended route on the map, chart or drawings.	
<p>Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document for further response to Items 18 & 19 inclusive.</p> <div style="text-align: right; margin-top: 20px;"> NUMBER OF DOCUMENTS ATTACHED <input style="width: 30px; height: 15px;" type="text"/> </div>	

20. EQUIPMENT AND METHODS — Describe the equipment and methods to be used at each load site and disposal site. An independent contractor will carry out the dredging and disposal program using a floating plant with mechanical clam shell bucket excavator. The material will be loaded onto 2 bottom dump scows and towed to the disposal site where the dredged materials will be released.
21. METHODS OF PACKAGING AND CONTAINMENT See Item 20 above

DISPOSAL SPECIFICATIONS	
22. MAXIMUM QUANTITY PER DISPOSAL (m ³ or t) 300 m3 based upon the 2 scows equipment on site – the work is estimated to be undertaken over an estimated 4 month period (on a 2 X 10 hour shift per day, 7 days per week schedule) with the 2 scows making 2 trips each.	
23. RATE (where applicable) (m ³ /h or t/h)	24. FREQUENCY (disposals per day, week or month) 4 disposals per 10 hour shift; 2 shifts per day on average depending upon difficulty of excavation
25. SPEED DURING DISPOSAL 1 kt	26. TIME REQUIRED FOR DISCHARGE (or sinking) (min) 10 minutes
27. TRACK FOLLOWED DURING DISPOSAL Direct from the excavation within the Pangnirtung Harbour to the Disposal Site in the Pangnirtung Fjord	

CARRIER INFORMATION			
— If unknown, this may be provided at a later date but prior to start of operations.			
28. NAME AND ADDRESS OF CARRIER McNally International 1855 Barton St E, Box 3338, Hamilton, ON L8H 7L8	29. TELEPHONE NO. (905) 549-6561	FAX. NO (905) 549-3548	EMAIL ADDRESS info@mcnallycorp.com
30. NAME, TITLE AND ADDRESS OF THE OWNER OF THE SHIP, AIRCRAFT, PLATFORM OR STRUCTURE USED TO CARRY OUT THE DISPOSAL McNally International 1855 Barton St E, Box 3338, Hamilton, ON L8H 7L8	31. TELEPHONE NO. (905) 549-6561	FAX. NO (905) 549-3548	EMAIL ADDRESS info@mcnallycorp.com
32. NAME OF INDIVIDUALS RESPONSIBLE FOR LOADING OR DISPOSAL ON BEHALF OF THE APPLICANT (including the master) Mr Brian McLeod	33. TELEPHONE NO. (905) 549-6561	FAX. NO (905) 549-3548	EMAIL ADDRESS info@mcnallycorp.com
34. NAME OR NUMBER OF SHIP, AIRCRAFT, PLATFORM OR STRUCTURE USED TO CARRY OUT THE DISPOSAL S11 & S12			

35. APPROVALS — List all permits, licenses and reviews, including environmental impact assessments, required by any federal, provincial, territorial, municipal or local agency for the activity described in this application to be carried out.

ISSUING AGENCY	TYPE OF APPROVAL	ID NO.	DATE OF APPLICATION	DATE OF APPROVAL	DATE OF REFUSAL
Joint Responsibility	Screening-level Environmental Assessment by the Nunavut Impact Review Board	09UN052	December 2010	March 22, 2012	
Environment Canada	Disposal at Sea Permit Application		June 2012	Open	
Fisheries and Oceans Canada	HADD Authorization		June 2012	Open	
Transport Canada	Navigable Waters Authorization		November 2010	March 2, 2011	

36. NOTICE OF APPLICATION — Attach proof that notice of this application was published in a newspaper of general circulation in the vicinity of the loading and disposal site described in the application.

NEWSPAPER CLIPPING ATTACHED ☐ Waiting for the translation of the Notice of Intent

NAME OF NEWSPAPER

**PLACE OF PUBLICATION
(CITY AND PROVINCE)**

DATE OF PUBLICATION

News North

Nunatsiaq News

both newspapers are distributed throughout the north/arctic

TBD

PART C — INFORMATION ON ALTERNATIVES TO DISPOSAL AT SEA

37. WASTE AUDIT — Refer to sections 1 to 6 of Schedule 6 to CEPA 1999.

Harbour development activities are currently underway at the Pangnirtung Harbour which will see the expansion of the harbour in order to better accommodate all vessels within the community. Material dredged from within the channel and outer basin has been and is currently being disposed of in the Pangnirtung Fjord under Disposal At Sea Permit #4543-2-02896. This material has been deemed to be unsuitable to be used within the community for other construction purposes without additional cost and burden of treatment and stabilization. Previous investigations have also indicated that the material is free of contaminants and meets the CEPA Disposal at Sea Regulation criteria. Please refer to item 41 below for material characterization information

NUMBER OF PAGES ATTACHED -0

38. ALTERNATIVES — Provide a comparative assessment of disposal at sea and the practicable alternatives indicating the following:

- (a) Environmental impact
- (b) Risk to human health
- (c) Hazards (including accidents) associated with treatment, packaging, transport and disposal
- (d) Economics (including energy costs)
- (e) Conflicting use of resources (potential and actual)

Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document (09UN052) for further response.

NUMBER OF PAGES ATTACHED 0

PART D — HISTORICAL DATA

39. PREVIOUS DISPOSAL METHODS — Describe the methods, if any, other than disposal at sea that you have previously used to dispose of this type of substance. Indicate dates and locations.

PWGSC has contracted to use tracked backhoe equipment working from land based platforms to excavate the initial inner basin. The material was loaded onto ground based dump trucks to move the material to an extended sea lift landing area being developed as part of the harbour expansion. This contract was awarded in April 2010 with excavation starting in the summer of that year.

40. LOAD SITE HISTORY — For dredged material or inert inorganic geological matter, indicate how each dredging or excavation site was used during the last 10 years.

The load site has functioned as a working harbour for the fishers of Pangnirtung for the last 11 years. The load site has also been used to unload supplies from barges that visit multiple times per year. In recent years, tour ships have also visited the fjord and passengers are ferried back and forth from the load site by local vessels.

NUMBER OF PAGES ATTACHED 0

PART E — CHEMICAL, BIOLOGICAL AND PHYSICAL INFORMATION

41. CHEMICAL INFORMATION — Provide a chemical characterization of the substance. Where possible, attach detailed data and methods and the quality assurance and control data and methods. If no data are provided, explain why. See the applicable item in Part 1 or 2 of Appendix 1 for details of additional information that must be included in your application.

Material to be removed was the subject of a Marine Sediment Sampling Program undertaken in March 2009. Results of the analytical testing indicate that the material to be dredged and disposed meet ocean disposal criteria with total organic carbon content ranging from non-detect to 0.59%; polycyclic aromatic hydrocarbon (PAH) and polychlorinated biphenyl (PCB) contaminants not detected in any of the samples; and that applicable metals results were lower than the *Canadian Environmental Protection Act* Disposal at Sea Regulations. Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document (09UN052) for further response. Please refer to Attachment D of that Documentation for a copy of the Marine Sediment Sampling Program undertaken within the proposed dredge site.

NUMBER OF PAGES ATTACHED 0

42. BIOLOGICAL INFORMATION — Provide an assessment of the potential effects of the substance, including toxicity, on living marine resources. Where possible, attach detailed bioassessment data and methods, and the quality assurance and control data and methods. If no data are provided, explain why.

Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document (09UN052) for further response. Please refer to Attachment B of that Documentation for the Nunavut Impact Review Board screening-level Environmental Assessment document

NUMBER OF PAGES ATTACHED 0

43. PHYSICAL INFORMATION — Provide an assessment of the potential of the substance, once disposed of at sea, to cause long-term physical effects. Where possible, attach detailed physical data and methods, and the quality assurance and control data and methods. If no data are provided, explain why. See the applicable item in Part I of Appendix I for details of additional information that must be included in your application.

Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document (09UN052) for further response. Please refer to Attachment B of that Documentation for the Nunavut Impact Review Board screening-level Environmental Assessment document and Attachment D of that Documentation for chemical characterization of the material to be dredged.

NUMBER OF PAGES ATTACHED 0

PART F — PROXIMITY AND MITIGATION

44. PROXIMITY TO FACILITIES — For dredged or inert inorganic geological material, provide a map for each load site that shows, by means of the symbols indicated below, the location of the major operating and historical facilities in the vicinity of the site. Indicate your sources of information and attach a copy of the information where possible. Where the source is a person, provide the person's name, address and telephone number.

FACILITIES	SYMBOL		SOURCES OF INFORMATION
	OPERATING	HISTORICAL	
(a) Oil refineries	(O)	(O*)	
(b) Mills (give type)	(M)	(M*)	
(c) Mines (give type)	(N)	(N*)	
(d) Sewage outfalls	(S)	(S*)	
(e) Storm drains/pipes	(P)	(P*)	
(f) Shipping docks	(D)	(D*)	
(g) Other industries (specify)	(I)	(I*)	
(h) Other source of pollution and contamination (specify)	(C)	(C*)	
<p>A fish processing plant is located approximately 200m inland, southwest of the proposed dredge site. Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document (09UN052) for further response. Please refer to Figure 2 in Attachment A of that Documentation for a figure showing the proposed Project site in relation to neighboring facilities and Attachment B of that Documentation for the Nunavut Impact Review Board screening-level Environmental Assessment document.</p>			NUMBER OF PAGES ATTACHED 0

45. PROXIMITY TO SENSITIVE AREAS — For a new disposal site, provide a map that shows, by means of the symbols indicated below, the location of all sensitive areas in the vicinity of the disposal site. Indicate your sources of information and attach a copy of the information where possible. Where the source is a person, provide the person's name, address and telephone number.

SENSITIVE AREAS	SYMBOL	SOURCES OF INFORMATION
(a) Recreational areas	(RA)	The disposal location in Pangnirtung Fjord is an existing ocean disposal site. Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document (09UN052) for further response. Please refer to Attachment B of that Documentation for the Nunavut Impact Review Board screening-level Environmental Assessment document
(b) Spawning and nursery areas	(SN)	
(c) Known migration routes of living marine resources	(MR)	
(d) Sport and commercial fishing areas	(FA)	
(e) Areas of natural beauty or cultural or historical importance	(BH)	
(f) Areas of special scientific or biological importance	(IS)	
(g) Aquaculture	(AC)	
(h) Shipping lanes	(SL)	
(i) Areas of the seafloor having engineering uses (mining, cables, desalination or energy conversion sites)	(EU)	
(j) Other areas (describe use e.g. water intakes)	(XZ)	

NUMBER OF PAGES ATTACHED 0

46. MITIGATION — Indicate measures intended to minimize the environmental, health, navigational and aesthetic impacts during loading, transport and disposal. See the applicable item in Part 2 of Appendix 1 for details of additional information that must be included in your application.

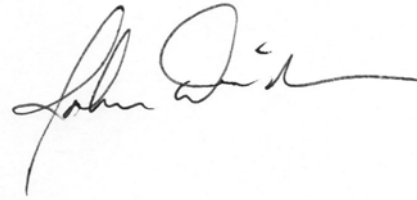
Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document (09UN052) for further response. Please refer to Attachment B of that Documentation for the Nunavut Impact Review Board screening-level Environmental Assessment document

Page 7 of 12

47. TIME RESTRICTIONS — If the load site or disposal site will be in the vicinity of spawning areas, migration routes or fishing areas, list the major species involved and the periods during which they are the most sensitive (active time of year).

Please refer to Permit #4543-2-02896 for the supporting documentation required. This permit application will use the same resources and data as the first Disposal at Sea Permit #4543-2-02896. See the Nunavut Impact Review Board screening-level Environmental Assessment document (09UN052) for further response. Please refer to Attachment B of that Documentation for the Nunavut Impact Review Board screening-level Environmental Assessment document

Application is hereby made for a permit authorizing the activity described in this application. I certify that I have reviewed the information provided in this application and that, to the best of my knowledge and belief, the information is true, complete and accurate. I further certify that I am authorized to undertake the activity or am acting as a duly authorized agent of the applicant.



Date: 2012-06-13

Name: John R Davidson

Telephone No.: (204) 771-0082

Fax No.: (204) 983-4444

Send the completed permit application, together with all documents to be attached, to one of the following addresses.

Page 8 of 12

APPENDIX 1

Part 1

MINIMUM INFORMATION REQUIREMENTS (BY TYPE OF SUBSTANCE) FOR DISPOSAL AT SEA OF WASTE AND OTHER MATTER

Each type of substance requires different information. Provide the required information on the form in the square indicated. Attach additional pages as needed. The Minister of the Environment may require, pursuant to paragraph 127(2)(b) or 128(3)(b) of CEPA 1999, further information for the purpose of complying with Schedule 6 to that Act. In the case of disposal at sea by incineration or thermal degradation as referred to in section 128 of that Act, consult Part 2 of this Appendix. The following numbers represent the item of the permit application form.

A — DREDGED MATERIAL AND INERT, INORGANIC GEOLOGICAL MATTER

14. Substance to Be Disposed of at Sea

Soil or sediment

Other components (e.g., wood waste)

41. Chemical Information

Chemistry in respect of the following parameters (soil, sediment, pore water as needed):

cadmium

mercury

total polychlorinated biphenyls (PCBs)

total polycyclic aromatic hydrocarbons (PAHs)

total organic carbon

43. Physical Information

Grain size of soil or sediment

B — FISHERIES WASTE

14. Substance to Be Disposed of at Sea

Species

Type of waste (e.g., shells, offal)

Source of waste

C — SHIPS, AIRCRAFT, PLATFORMS AND OTHER STRUCTURES

14. Substance to Be Disposed of at Sea

Name, if applicable
Location of registry
Model or official number
Dimensions
Weight (dead weight tonnage)
Principal materials of construction
Name and address of owner
State of seaworthiness, if applicable

41. Chemical Information

Cargo, fuel and hazardous materials, including chemicals, left on board

43. Physical Information

Last cargo
Type of engine, if left on board
Nature and weight of ballast left on board

D — BULKY SUBSTANCES

14. Substance to Be Disposed of at Sea

Principal components (composition) of substance
Dimensions
Weight (t)

41. Chemical Information

Contamination by hazardous materials including chemicals

E — OTHER SUBSTANCES

14. Waste or Other Matter to Be Disposed of at Sea (see Schedule 5 to CEPA 1999)

Principal components (composition) of substance
Origin of substance and process giving rise to substance

Part 2

MINIMUM INFORMATION REQUIREMENTS FOR INCINERATION

In the case of an emergency, referred to in section 128 of CEPA 1999, where incineration is necessary, provide the required information on the permit application form in the square indicated. Attach additional pages as needed. The Minister of the Environment may require, pursuant to paragraph 128(3)(b) of that Act, further information for the purpose of complying with Schedule 6 to that Act. For an activity other than incineration at sea, see Part 1 of this Appendix. The following numbers represent the item of the permit application form.

ALL SUBSTANCES

14. Substance to Be Incinerated at Sea

- Principal components (composition) of substance
- Description of the products of combustion and the rate of their production
- Origin of substance and process giving rise to substance

20. Equipment and Methods

- Description of incineration equipment
- Description of air pollution control equipment
- Description of monitoring and control systems in place
- Stack dimensions
- Combustion temperature
- Retention time
- Combustion and destruction efficiency
- Proposed method of loading and storage

41. Chemical Information

- Results of the latest tests on stack emissions (for particulate matter, hydrogen chloride (HCl), carbon monoxide (CO), dioxins and furans)

46. Mitigation

- Methods of complying with applicable noise by-laws
 - Methods of managing ash and minimizing fugitive emissions
 - Methods of managing wastewater to comply with provincial or municipal discharge limits
 - Methods of preventing hazards to other ships
 - Methods of spill response and contingency plans in the event of a spill
 - Methods of emergency shutdown
 - Qualifications of the operating personnel
-

APPENDIX 2

MINIMUM INFORMATION REQUIREMENTS FOR DISPOSAL AT NEW DISPOSAL SITES AND ON ICE

Provide the required information on the permit application form in the square indicated. Attach additional pages as needed. The Minister of the Environment may require, pursuant to paragraph 127(2)(b) or 128(3)(b) of CEPA 1999, further information for the purpose of complying with Schedule 6 to that Act. Contact your regional Disposal at Sea Program office prior to collecting data on a new disposal site, as some of the information may already be on file. The following numbers represent the item of the permit application form.

DISPOSAL AT A NEW DISPOSAL SITE

18. Disposal Site(s)

Bathymetry

Sediment transport

Salinity

Current flow

Chemistry in respect of the following parameters (sediment, pore water as needed):

cadmium

mercury

polychlorinated biphenyls (PCBs)

total polycyclic aromatic hydrocarbons (PAHs)

DISPOSAL ON ICE

18. Disposal Site(s)

Area of ice to be used as the disposal site

Thickness of ice at the proposed disposal site (m)

Estimated date of ice breakup (year/month/day)

Estimated location of ice breakup (lat./long.)

Estimated time from breakup to melting (days)

Estimated depth of water at disposal site (m)
