.2 The construction camp shall meet all requirements of Section 01591 of the Contract Specifications.

.3 Locate the construction camp and/or associated storage areas in areas of previous disturbance, or as proposed on the Contract Drawings, to minimize damage to previously undisturbed areas.

.2 Access

.1 Access to the CAM-M site is provided by regularly scheduled aircraft, charter aircraft and barge.

.2 Local access to construction, demolition, clean up and other work areas is generally via existing road networks. Graded areas, located near the beach landing area, and/or in the vicinity of the Station Area, are to be used for temporary storage of materials.

.3 Do NOT interfere with NWS operations at the site.

.3 Water Supply

.1 The existing water supply lake at the CAM-M site may be used as a potable water source, providing that the cumulative water withdrawal rate by NWS and the Contractor does not adversely affect fish habitat. An alternative water supply is to be located, tested and approved in accordance with the Water Use License. The Contractor shall routinely monitor water quality to ensure that it meets or exceeds the Guidelines for Canadian Drinking Water Quality.

.4 Waste Management

.1 Provide waste management for all facilities operated by the Contractor.

.2 Only domestic and human waste shall be collected and disposed of in a wastewater treatment system. This excludes items such as waste oil and liquids containing hazardous material. The wastewater shall be disposed of in accordance with the wastewater discharge criteria provided in Section 01560 of the Contract Specifications.

.3 Non-hazardous solid wastes, generated as part of the operation of the construction camp, are to be disposed of on site in an extension to an existing landfill. Domestic non-hazardous wastes may be incinerated and disposed of, as described above.

.5 Fuel Handling and Storage

.1 Transport fuel to the site and store in approved facilities, as described in Section 4, at the construction camp, storage compound or existing fuel storage facilities, if available.

.6 Equipment and Vehicle Use, Storage and Maintenance

.1 Transport equipment and vehicles to the site, store in approved locations, use only for contracted work, and maintain as required.

.4 Excavation of Contaminated Soil

.1 The definition of contaminated soil has been established in accordance with the DEW Line Clean Up Criteria as shown in Table 2.1. Soils contaminated at levels above DCC Tier I but less than DCC Tier II criteria are to be landfilled on site. These criteria are designed to be protective of the Arctic ecosystem.

.2 Complete all work related to the excavation and disposal of contaminated soils in accordance with Section 02066 of the Contract Specifications.

TABLE 2.1
DEW LINE CLEAN UP CRITERIA (DCC)
FOR CONTAMINATED SOIL

Substance	Criteria	
	DCC Tier I (ppm)	DCC Tier II (ppm)
Arsenic (As)	--	30
Cadmium (Cd)	--	5
Chromium (Cr)	--	250
Cobalt (Co)	--	50
Copper (Cu)	--	100
Lead (Pb)	200	500
Mercury (Hg)	--	2
Nickel (Ni)	--	100
Zinc (Zn)	--	500
Polychlorinated Biphenyls (PCBs)	1	5

.5 Disposal of Hazardous Materials

.1 "Hazardous" materials are defined as follows:
Hazardous materials are wastes or materials that are designated as "hazardous" under Northwest Territorial, or Federal legislation; or as "dangerous goods" under the *Transportation of Dangerous Goods Act* (TDGA). The *Canadian Environmental Protection Act* (CEPA) also regulates material containing PCBs at greater than fifty parts per million (ppm). Specifically identified hazardous materials include: batteries:

asbestos; fuel tank bottom sludges; solvents; PCB-containing liquids; fuels and lubricating oils; alcohols and glycols; and heavy metal-contaminated liquids. Disposal requirements for these hazardous materials are outlined in Table 2.2.

TABLE 2.2
HAZARDOUS MATERIAL DISPOSAL REQUIREMENTS

Hazardous Material	Disposal Requirement
• batteries • heavy metal-contaminated organic liquids • liquids containing organic compounds with chlorine concentrations > 1000 ppm • liquids containing organic compounds with PCB concentrations > 2 ppm and < 50 ppm • liquids containing organic compounds other than those described above	licensed treatment/disposal facility
• asbestos	double bag and dispose of in on-site engineered landfill
• fuel tank bottom sludges • fuels, lubricating oils, alcohols and glycols	licensed treatment/disposal facility or on-site incineration
• liquids and solids containing organic compounds with PCB concentration > 50 ppm	licensed storage, or disposal at the Alberta Special Waste Management System Facility - Swan Hills, Alberta

.2 Hazardous materials may be encountered during sorting of site and demolition debris. Collect and sort hazardous materials using equipment suitable for the task.

.3 If a substance is discovered that is suspected to be explosive, immediately eliminate all ignition sources in the area (including smoking, flares or flames in the immediate area). Clean up the material and dispose of only under the supervision of a permitted explosives expert. If fire or heat threatens the area of the potentially explosive material, all personnel will move to a distance of at least 1000 m from the material. Implement the procedure outlined in the Contractor's Contingency Plan for dealing with such substances.

.4 Test any suspected radioactive material and handle, package and dispose all confirmed radioactive materials as outlined under the TDGA and the Atomic Energy Control Act.

.5 Transport hazardous materials in accordance with the Transportation of Dangerous Goods Regulations, as applicable.

.6 Conduct all work related to hazardous materials in accordance with Section 02090 of the Contract Specifications.

.3 Areas not to be disturbed include the operating LRR facilities including satellite ground terminals and fuel storage tanks, as described in the Contract Specifications and Drawings.

.13 Demobilization

.1 Following the completion of clean up activities, remove all equipment, remaining fuel, supplies, and the construction camp from the site.

3.0 REGULATORY OVERVIEW

3.1 INTRODUCTION

.1 The Contractor shall comply with all applicable environmental laws, regulations and requirements of Federal, Territorial, and other regional authorities, and will acquire and comply with such permits, approvals and authorizations as may be required. The Contractor is subject to and must comply with those permits and approvals obtained on behalf of and by DND to conduct this work. The Contractor, through all project phases, shall work in close cooperation with regulatory authorities and DND to ensure compliance.

3.2 FEDERAL ACTS, REGULATIONS AND GUIDELINES

.1 Several federal Acts, regulations, and guidelines affect project activities across all Canadian jurisdictions. The most relevant to the DEW Line Clean Up EPP are outlined below:

.1 The *Canadian Environmental Protection Act* (CEPA) is a comprehensive piece of environmental legislation that regulates toxic substances from their production or import, to consumption, storage and disposal. This Act also incorporates the former Ocean Dumping Regulations and PCB Storage Regulations.

.2 The *Transportation of Dangerous Goods Act* and Regulations promote public safety in the transportation of dangerous goods. The Act applies to all handling, offering for transport and transporting of dangerous goods by any means of transport whether or not the goods originate from or are destined for any place or places in Canada.

.3 The *Fisheries Act* protects fish and fish habitat from pollution, negative alteration or disturbance, or impediments to fish movement. Fisheries and Oceans Canada will be given the opportunity to review permit applications or restoration plans submitted by other agencies.

.4 The *Arctic Waters Pollution Prevention Act and Regulations* govern development and shipping activity in Arctic waters adjacent to the mainland and islands of the Canadian Arctic, to ensure the continuing welfare of the residents of the areas, and to protect the ecological balance in water, ice and land areas.

.5 The *Migratory Birds Convention Act* provides for the protection of designated migratory species, including birds of prey, their habitats, and the regulated harvest of certain species.

.6 The *Canada Wildlife Act* provides for the involvement of the Government of Canada in cooperative research and management programs involving wildlife species normally the responsibility of provinces or territories. This is particularly relevant to rare and endangered species or species such as caribou which seasonally move across various regulatory boundaries.

.7 The *Canada Shipping Act* regulates shipping activities under the jurisdiction of Canada. Regulations cover technical standards of operation safety and pollution aspects related to shipping activities in Canadian waters.

.8 The *Navigable Waters Protection Act* pertains to the erection of structures or facilities used to support or impede navigation in waters under the jurisdiction of Canada.

.9 The *Territorial Lands Act* provides the authority for administering and protecting lands under the direct control of the Minister of Department of Indian Affairs and Northern Development (DIAND) (Territorial Lands). The following regulations are pursuant to this act:

- The Territorial Land Use Regulations provide regulatory control for maintaining sound environmental practices for any land use activities on Territorial lands. These regulations require that land use permits be issued for such operations as work involving the use of heavy equipment, establishment of camps, use of explosives, and clearing of lines, trails and rights-of-way, including construction of access roads.
- The Territorial Quarrying Regulations establish the fee schedule and procedures for extracting Crown-owned limestone, granite, slate, marble, gypsum, loam, marl, gravel, sand, clay or stone from Territorial Lands. The regulations specify permits, applications, staking and dimensions of quarries.

.10 The *Northwest Territories Waters Act* and Regulations provide for the conservation, development and use of the water resources of the Northwest Territories and for the establishment of a Water Board to license all such water usage and waste disposal activities.

.11 *Canada Labour Act* and Regulations under the Act is the Labour code for all Federal Employees or activities on Federally owned or controlled land. Private Provincial or Territory employees are governed by the Provincial/Territorial Labour Acts, even when working on Federal lands or facilities. The labour acts control such things as statutory holidays, maximum work hours and minimum wages.

.12 *Atomic Energy Control Act* and Regulations describe the packaging requirements and approvals needed for the transportation of radioactive materials.

.13 *Explosives Act* and Regulations define explosives, the permitting requirements needed to use explosive substances, packaging, handling and transporting requirements, and safety requirements.

.14 National Fire Code (NFC) establishes the standard for fire prevention, fire fighting and life safety in buildings in use, including standards for the conduct of activities causing fire hazards, maintenance of fire safety

equipment and egress facilities, standards for fire extinguishers, etc. In addition, the NFC establishes the standard for prevention, containment and fighting of fires originating outside buildings which may present a hazard to a nearby community, and sets the standards for the storage and handling of dangerous goods, flammable liquids and combustible liquids.

.2 The following guidelines were used as reference in the development of the DEW Line Clean Up Protocol and Contract Specifications. These guidelines are identified as reference materials only.

.1 Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments indicate the degree of treatment and effluent quality that will be applicable to all wastewater discharged from existing and proposed Federal installations.

.2 National Guidelines for the Landfilling of Hazardous Waste (CCME Report, April 1991) are to be used by regulators, designers, owners, and operators of hazardous waste facilities. They cover site selection, design, construction, closure and post-closure care, monitoring, and operation. They are intended for new, not existing facilities.

.3 Guidelines for Preparation of Hazardous Material Spill Contingency Plans identify factors that should be considered in the development of hazardous material spill contingency plans and the information that should be incorporated into a comprehensive contingency plan.

.4 Code of Good Practice on Dump Closing or Conversion to Sanitary Landfill at Federal Establishments (1977) outlines the guidelines to improve operation and properly close existing dumps. It is intended to promote a consistent approach to the clean up of existing dumps to prevent contamination of water, air and land and to ensure that the best particular control technology is used.

.5 Code of Practice for Used Oil Management in Canada describes environmentally sound options for the handling, storage, collection, transportation, recycling, reuse and disposal of used oils in Canada. It is intended to provide guidance for used oil generators and to regulatory authorities in the formulation of provincial or regional used oil management strategies.

.6 Canadian Environmental Quality Criteria for Contaminated Sites compiled by the Canadian Council of Ministers of the Environment (CCME) provide numerical limits for contaminants in soil and water intended to maintain, improve, or protect environmental quality and human health at contaminated sites. The criteria are intended to provide general technical and scientific guidance to provincial, federal, territorial, and non-governmental agencies in the assessment and remediation of contaminated sites across Canada. They serve as bench marks against which to assess the degree of contamination at a site.