

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
RESPONSE TO IAAC TECHNICAL INFORMATION REQUESTS**

Question IAAC-60

Table of Contents

ABBREVIATIONS AND ACRONYMS II

QUESTION IAAC-60 1

LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT RESPONSE TO IAAC TECHNICAL INFORMATION REQUESTS

Question IAAC-60

Abbreviations and Acronyms

CSA	Canadian Standards Association
EIS	environmental impact statement
m	metre
TC	Transport Canada
VC	valued component

LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT RESPONSE TO IAAC TECHNICAL INFORMATION REQUESTS

Question IAAC-60

QUESTION IAAC-60

EIS Guideline Reference: 7.6.1. Effects of potential accidents or malfunctions; 7.6.2 Effects of the environment on the project

EIS Reference: 3 Project Description; 14.4 Fire; 15.7 Effects of Fire Hazards on the Project

Context and Rationale

The EIS Guidelines require an analysis of the risks of accidents and malfunctions, their effects, and preliminary emergency response measures, and that details be provided of planning, design and construction strategies intended to minimize the potential environmental effects of the environment on the project.

Chapter 3 of the EIS describes that the project will involve multiple fuel storage areas during construction and standby diesel generators for the operation of the water control structures. Chapters 14 and 15 describe fire, including the worst case scenario of wildfire interacting with the project which could result in damage to infrastructure and corresponding effects on VCs. The EIS does not identify mitigation measures specific to fire risk from flammable materials and associated environmental effects.

The areas surrounding the project area that could be affected by fires, especially if project components increase or cause fire risk, include potential critical habitat and features that are mitigation measures for other project effects (e.g., revegetation that supports habitat and land use). Further information is needed to understand measures that will be taken to mitigate the risk of ignition of flammable materials associated with the project, including from wildfires.

Information Requests

- a) Describe specific measures that will be taken to:
 - i. minimize risk of fire and explosions associated with temporary and permanent fuel storage areas, or other flammable materials, during construction and operations; and
 - ii. minimize the likelihood of wildfires spreading to the project area and interacting with temporary and permanent fuel storage areas or other flammable materials.

Response IAAC-60

- a) i. Fuel storage areas for construction and operation will be established following Manitoba Infrastructure's Project Environmental Requirements, Volume 1, Section 2.5.1 as presented in Appendix 3F.

LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT RESPONSE TO IAAC TECHNICAL INFORMATION REQUESTS

Question IAAC-60

Specific measures to minimize risk of fire and explosions include the following:

- Machinery shall arrive on site in a clean condition and shall be kept in good working order and free of fuel, oil or fluid leaks. Machinery that is found to be leaking any fuel, oil or other fluids shall be moved off the work site immediately for repair.
- All fuel handling and storage shall comply with Storage and Handling of Petroleum Products and Allied Products Regulation, 188/2001 under *The Dangerous Goods Handling and Transportation Act*, C.C.S.M. c. D12.
- Storage of fuel stored in drums or containers of 230 L or less shall comply with the requirements of the Manitoba Fire Code (Regulation 155/2011).
- Designated Area(s) shall be established for fuel storage, materials handling and storage, equipment cleaning, refueling and servicing.
- In the event that a piece of equipment must be refueled or serviced outside a Designated Area, the fuel shall be transported in approved containers. Absorbent pads or other precautions, such as drip trays or a high density polyethylene groundsheet, shall be used as secondary catchment or containment in the event of spillage.
- All Designated Areas used for petroleum storage shall be a minimum distance of 3 m from a property line or building and 15 m horizontally from hydroelectric poles and lines.
- Tank vehicles used to deliver fuel to the work site and/or used to move fuel around the work site shall meet the requirements for highway tanks for the shipment of dangerous goods by road set out in CSA Standard B620-14, Highway Tanks and TC Portable Tanks for the Transportation of Dangerous Goods.
- All fuel storage containers and tank vehicles shall be inspected daily for leaks and spillage. Damaged or leaking fuel storage containers shall be promptly removed from site. All used petroleum products and other regulated hazardous wastes shall be collected and disposed of at a licensed facility in accordance with applicable legislative requirements.
- Petroleum products shall be transported in accordance with *The Dangerous Goods Handling and Transportation Act* (Manitoba).
- Construction, installation and removal of petroleum storage tank systems shall occur under the supervision of a registered licensed petroleum technician.
- Prior to use or filling, all petroleum storage tanks shall be registered and properly permitted, as required, with the province of Manitoba or the Government of Canada (on federal lands). All permits are to be kept current.
- Petroleum storage tanks shall be grounded and the dispensing tank shall be attached with a bonding cable to an appropriate location on the receiving tank prior to commencing fueling.

LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT RESPONSE TO IAAC TECHNICAL INFORMATION REQUESTS

Question IAAC-60

- Dedicated petroleum storage areas shall provide additional spill containment and facilitate clean up through measures such as:
 - Maximum separation from environmentally sensitive features
 - Clear identification of the materials present
 - Access restricted to authorized vehicles and employees
- Only above ground storage tanks shall be used for the storage of bulk petroleum products. The tanks shall be equipped with overfill protection and spill containment consisting of perimeter dikes or secondary containment in the tank design.
- All Designated Areas used for petroleum product storage shall be a minimum distance of 100 m from any waterbody or wetland and shall be kept clear of snow and/or miscellaneous material to allow for clear access and route inspection and leak detection.
- All Designated Areas shall have the topsoil stripped and be underlain with at least 30 cm of impermeable soil or approved alternate and diked in such a manner as to contain any leakage or spillage. The dikes shall be designed, constructed and maintained to retain not less than 100% of the capacity of the total number containers or 110% of the largest container, whichever is greatest. If dikes are used, the containment areas shall be dewatered after a rainfall event and the containment water disposed of as approved by the Engineer, and clean topsoil shall be stored and used in the restoration of the site.
- Concrete barriers shall be installed around all petroleum storage tanks to prevent collisions (as per Technical Bulletin PSF-004, March 2015: Impact Protection Requirements for Above Ground Storage Tanks Systems).
- All employees involved in the handling and storage of fuels shall have WHMIS and spill response training.
- All internal-combustion engines (regardless of fuel type) shall be shutdown during fueling.
- There shall be no smoking and no open flames at the petroleum storage area at any time.
- Fueling procedures shall be posted where fueling occurs.
- Storage sites for petroleum products shall be secured and signs including but not limited to; hazard warnings, who to contact in case of a spill, access restrictions and under whose authority the access is restricted.

LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT RESPONSE TO IAAC TECHNICAL INFORMATION REQUESTS

Question IAAC-60

- All petroleum storage tanks with a capacity greater than 5000 L shall be registered with Manitoba Conservation and Climate. New tanks shall be registered before installation. Tanks shall be designed, installed, and operated in accordance with *The Dangerous Goods Handling and Transportation Act* (Manitoba) and the Federal *Transportation of Dangerous Goods Act*. Smaller stationary tanks shall adhere to requirements of the Manitoba Fire Code. A copy of the petroleum license shall be posted at the fueling site.
- Bulk waste oil shall be stored in aboveground oil tanks, which shall have secondary containment and a weatherproof cover. Waste oil shall be recycled by a reputable recycling agency.
- Used oil filters shall be drained, placed into suitable storage containers and disposed of at approved facilities. The oil drained out of the used filters shall be collected and handled in the same manner as used oil.
- All empty containers from equipment refueling and servicing shall be removed to a licensed disposal site.
- Materials required for spill containment and clean up shall be available at all work sites and designated areas. All vehicles shall carry materials and equipment for emergency spill containment.
- All petroleum product storage sites and mobile transportation units shall, at all times, be equipped with appropriate categories of equipment and volumes of fire suppression products.

The handling and storage of explosives will follow the Manitoba Labour and Immigration Workplace Safety and Health Code of Practice for the Use of Explosives (Government of Manitoba 2006). The Code includes the following:

- Explosives used for construction will be stored in magazines constructed and maintained in accordance with Storage Standard for Industrial Explosives (2001 Edition) published by the Explosives Division of Natural Resources Canada.
 - Transportation of explosives on surface will occur in accordance with The Explosives Act (Canada), and Part VI (Transportation by Road and Private Railway) of the Explosives Regulation.
- ii The prevention and response to wildfires are addressed in Manitoba Infrastructure's Project Environmental Requirements, Volume 1, Section 2.9 as presented in Appendix 3F. Specific measures to be implemented by Project contractors include the following:
- The construction contractor's Evacuation and Emergency Preparedness Plan in the Event of a Wildfire, which shall be submitted to Manitoba Infrastructure prior to construction, shall be implemented.

LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT RESPONSE TO IAAC TECHNICAL INFORMATION REQUESTS

Question IAAC-60

- No fires shall be started without first taking sufficient precautions to ensure that the fire can be kept under control.
- Open fires are prohibited from April 1st to November 15th annually. In the event that burning is required during that period, an application for a burning permit shall be submitted for approval to Manitoba Conservation and Climate, where applicable. All conditions imposed by the burning permit shall be adhered to.
- No activity shall be conducted which may cause a fire to spread. Similarly, burning or smoldering matter shall not be placed where it may cause a fire to spread.
- A primary zone shall be established around camp sites and other longer-term temporary structures associated with construction and maintenance activities. Flammable materials such as leaves, brush, dead limbs, and fallen trees shall be cleared from the area regularly.
- The locations of construction camps, offices, and related structures shall be chosen in such a fashion as to minimize the risk of exposure to wildfires.
- In the event that a wildfire occurs, it shall be immediately reported to Manitoba Infrastructure and to Manitoba Conservation and Climate at 1-800-782-0076.
- All reasonable steps shall be taken in order to prevent a fire from burning out of control or spreading from land owned or occupied for construction purposes.
- In the event that a wildfire is identified where construction activities are taking place, all reasonable attempts shall be made to extinguish the wildfire. All available equipment, services and labor shall be made available at the disposal of an officer for the purposes of wildfire protection operations.
- All construction and related activities taking place in the vicinity of a wildfire shall cease until advised by Manitoba Infrastructure that it is safe to resume operations.

References

Government of Manitoba. 2006. Code of Practice for the Use of Explosives. Manitoba Labour and Immigration Workplace Safety and Health.