Transport Canada Transports Canada

CEAA ENVIRONMENTAL SCREENING REPORT

SUMMARY

PROJECT IDENTIFICATION

Project Title: Iqaluit Airport Utilidor Removal - Asbestos Abatement

Estimated Cost: $701.5K

Project Location: Iqaluit Airport, Nunavut

Project Scheduling - Estimated Work Start Date: June 2006
- Estimated Work Completion Date: July 2006

Trigger: Transport Canada the proponent and is funding the project.

EA Start Date: January 3, 2006

CEAR No.: 06-01-17368

TC File No.: **K9-W583-410Y**

CONTACTS

Transport Canada	Name: Mike Molinski Telephone No.: (204) 984-0440	Fax No.: (204) 983-5048
Other RAs (Contact):	Name: Telephone No.:	Fax No.:
Proponent	Name: Mike Molinski, Transport Canada Telephone No.: (204) 984-0440	Fax No.: (204) 983-5048

NOTIFICATION

Federal departments notified in accordance with Federal Coordination Regulations:

	Yes	[X]	None identified	[ ]
Other Responsible Authorities:	Yes	[ ]	None identified	[X]

MITIGATION AND FOLLOW-UP

Mitigation to be implemented for this project?	***Yes***	***[X]***	***No***	***[ ]***
Follow-up program to be implemented for this project?	Yes	[ ]	No	[X]

This project work is primarily applying mitigative measures to address the asbestos located in the

utilidor on the airport property. Waste generated from this project will be disposed of by approved methods.

DETERMINATION

Determination: Inclusion List Regulations Determination Date: January 3, 2006

The Environmental Assessment conducted for this project, Iqaluit Airport Utilidor Removal and Asbestos Abatement has determined that the Inclusion List Regulations of CEAA apply. The project works include the removal and disposal of friable asbestos, which poses a potential health hazard to the public and environmental concern. Any environmental impacts or concerns from this project can be addressed and mitigated with sound environmental and known Asbestos Abatement practices. This remedial project once completed will have a positive effect for the environment and the facility. Removal of the utilidor containing asbestos will eliminate the related health and safety concerns.

1.0 PROJECT DESCRIPTION

1.1 Project Description

Prior to July 1, 1995 Iqaluit Airport was owned by the Government of Canada and operated by the Quebec Region of the Department of Transport. From July 1, 1995 until April 1, 1999 the airport was owned by the Government of Northwest Territories and operated by the Arctic Airports Division of the Department of Transportation. Since April 1, 1999 the airport has been owned by the Government of Nunavut and operated by the Nunavut Airports Division of the Nunavut Department of Community Government, Housing and Transportation.

The Government of Nunavut submitted a proposal to Transport Canada (TC) under the Airport Capital Assistance Program (ACAP) requesting funds for upgrading the runway and apron. As part of the proposal, a request for funding was made to reconfigure the drainage channels due to water ponding on the runway and Apron from snow melt and rain. The proposed location to reconfigure the drainage channels intersects an abandoned utilidor on the airport property. The proposal identifies the removal of a 110m section of the utilidor. The utilidor is located approximately 10m north of Apron I (see Diagram 1).

Regular utilidor construction practices consisted of insulation containing asbestos. TC undertook an investigation in August 2005 to confirm this. A consultant with asbestos abatement expertise was contracted to investigate and sample the utilidor. The laboratory analysis indicated it contained aircell insulation composed of 50-75% chrysotile asbestos and sweatwrap insulation composed of 50-75% chrysotile asbestos. The condition of the pipe insulation is poor and exposed to the environment. The utilidor will need to be demolished and removed prior to the Government of Nunavut proceeding with reconfiguring the drainage channels. The utilidor consists of concrete culvert beneath the road and taxiway, tin sheeting, foam and fibrous insulation, steel and metal piping. The tin sheeting is used to enclose and protect the piping inside of the utilidor. A section of the utilidor runs beneath the road and taxiway that is contained in a concrete culvert. The culvert is being used as both drainage for the ditch and passage of the utilidor beneath the road.

The utilidor will need to be properly removed, the asbestos contained and disposed of in an acceptable manner. The concrete and metal structure of the utilidor will need to be cleaned of debris and removal of all asbestos material prior to the demolition of the structure.

The construction will not be initiated until the water levels decrease substantially. No in water works will take place. No machinery will work in the ditch or in any water remaining in the ditch. The section of utilidor located beneath the road and the taxiway will need to be removed. A new culvert will be installed prior to construction to redirect any water in the ditch away from the utilidor while construction is taking place. Mitigation measures will be in place to prevent any erosion and sedimentation to enter the ditch. This may include erosion control blankets, silt fencing and additional precautions the contractor identifies. Any waste in the ditch will be removed and disposed of in the local landfill. This may include any construction waste and non-asbestos containing insulation.

The demolition waste from the utilidor (tin sheeting, steel, metal piping) will be sorted and stored on site to be removed and recycled. Before the waste may be removed all hazardous material and asbestos will be removed. All hazardous material and asbestos will be removed and shipped out of Nunavut and disposed of at a site the contractor selects. This location must be a licensed facility for disposing asbestos. The non-hazardous, non-asbestos containing insulation (fiberglass and cellulose) will be disposed of in the local landfill. Approximately 20 m^3 of construction material will need to be disposed of since there are no facilities to recycle it.

There are no water bodies or waterways in the general vicinity of the utilidor. The drainage channels direct the melt water and rain away from the Apron and airstrip eventually making its way to drainage channels off the property. There is no water being used for this project. Water quality will be improved as a result of the removal of the utilidor and drainage improvements.

A separate consultant will be contracted to conduct an air sampling/monitoring program for this project. They will be required to take background samples prior to the start of the project, during and after completion.

Execution of Work

Prior to commencing any works, establish location and extent of existing services and utilities, above and below ground at the site. Disconnect existing services and utilities at locations entering any buildings.

Prior to the start of any demolition work, remove and dispose of contaminated or hazardous materials (i.e. asbestos). All asbestos material will be fully encapsulated and removed in an acceptable manner. The asbestos will be removed and transported out of Nunavut. The disposal location is unknown at this time until a construction contract is awarded. The successful bidder will outline the disposal methods and location.

The metal piping, tin sheeting, and steel will be removed, separated and stored on site for removal to a recycling facility. The non-asbestos insulation (cellulose and fiberglass) will be disposed at the local landfill. At locations where utilidors terminate at buildings, the services will be cut and capped. Where utilidors enter the building, they will be demolished to the

underside of the floor of the building and restore the floor to match existing conditions. The demolition of the utilidors will include the spurs leading to the Federal Residence Building, the maintenance garage and First Air's Nose Dock. This will include the removal of all piping, insulation and any other non-hazardous materials. Lay down areas will be designated on the site for the collection and storage of reused, salvaged or recycled material.

1.2 Project Justification - Need / Alternatives to the Project (Optional)

Remedial work must be implemented to address health and safety issues required under the Canada Labour Code and to reduce the risk of future environmental concerns. Transport Canada is obligated under the transfer agreement to perform the required remedial work at the Iqaluit Airport .

2.0 CEAA TRIGGER

___X_ Transport Canada is the proponent of the project.
___X_ Transport Canada proposes to fund part or all of the project.
____ Transport Canada proposes to sell, lease or otherwise dispose of land for the project.
____ Transport Canada proposes to issue a permit, approval or other authorization on the CEAA Law List Regulations.

3.0 SCOPE OF PROJECT

Table1
Project works and Physical activities

Project Phase	Primary Project Components (Physical Works and Physical Activities)	Related Project and Ancillary Works (Physical Works and Physical Activities)
Construction / Expansion (Include timing of undertaking)	Survey the utilidor for the presence of Asbestos Containing Material (ACM). Establish an Asbestos removal and disposal plan. Remove and dispose of ACM located in the utilidor. Conduct inspections and perform air quality monitoring during and after the removal of ACM. Once all ACM has been removed, the demolition of the concrete and metal structure of the utilidor may proceed. These project activities will occur in the spring /summer of 2006.	N/A
Operations / Modifications (Include timing of undertaking)	N/A	N/A
Decommissioning / Abandonment / Demolition (Include timing of undertaking)	N/A	N/A

4.0 DESCRIPTION OF EXISTING ENVIRONMENT

4.1 Description of Biophysical Environment

The Iqaluit Airport is situated on Baffin Island in Frobisher Bay, Nunavut. The airport is located in the Northern Arctic Ecozone consists of low rolling plains covered with soil and rock debris left by glaciers. In these areas, the landscape may be covered by nothing more than frost-patterned soils, frost-shattered limestone, and sandstone for hundreds of square kilometres. The area has numerous landscape features more commonly associated with the badlands of the American southwest. which encompasses northeastern Manitoba to Western Quebec. This

lowland is comprised of flat rock with slight changes in elevation and is dominated by extensive wetlands and raised sand beaches.

Perennial frozen ground known as permafrost lies beneath the entire ecozone. Under a thin active layer, which freezes in winter and thaws each summer, permafrost may extend almost 1 km downwards. The constant freezing and thawing creates unstable soils that form cell-like shapes known as "patterned ground."

The only small mammal hardy enough to survive the harsh climate of this region is the Collared Lemming. It seeks protection from frigid winter temperatures under a protective blanket of snow. Lemmings are active all winter, scurrying through tunnels to their well-stocked food chambers. To the Arctic Fox, Ermine, and birds such as the Gyrfalcon and Snowy Owl, they are a vital source of food. A reduction in lemming numbers, caused by severe weather or as yet unexplained population cycles, can have a ripple effect in many arctic food chains.

This land at first may appear to be empty of life, particularly in winter. But three large mammals; the Muskox, Caribou, and Polar Bear -- are very much at home here throughout the year.

In spring, the land reverberates with the sound of thousands of migrant birds. Immediately after arrival, they begin a frantic schedule of breeding, nesting, and rearing young. Snow Geese, Brant, and Canada Geese nest in moist wetlands that line coastal areas and river valleys. Eider and Oldsquaw Ducks nest beside small ponds on grassy tundra. These areas also support a surprising number of shorebirds, including the Black-bellied Plover, Ruddy Turnstone, and Red Phalarope. Hoary Redpolls, Horned Larks, and Snow Buntings need very little vegetation cover for nesting and thus can survive in even the most sparse arctic landscape.

4.2 Description of Socio-Economic and Cultural Environment

Prior to July 1, 1995 Iqaluit Airport was owned by the Government of Canada and operated by the Quebec Region of the Department of Transport. From July 1, 1995 until April 1, 1999 the airport was owned by the Government of Northwest Territories (GNWT) and operated by the Arctic Airports Division of the Department of Transportation. Since April 1, 1999 the airport has been owned by the Government of Nunavut and operated by the Nunavut Airports Division of the Nunavut Department of Community Government, Housing and Transportation.

The catchment area for the airport includes Nunavut and especially the Eastern Arctic, Baffin Island communities and the city of Iqaluit. The Baffin Region includes 15 communities ranging in size from 270 people to 4,220 people in Iqaluit. Apart from these communities, the Baffin Region includes Arctic Bay, Nanisivik, Pangnirtung, Pond Inlet, Resolute Bay and Sanikiluaq.

During the fall, winter and spring, all material sent to the Eastern Arctic arrives by air through Iqaluit Airport. The Iqaluit Airport is the only year round means of access to the community. The airport, located at sea level is capable of handling all large aircraft.

The airport continues to play an integral role in the movement of and handling of people and

commodities.

5.0 CONSULTATION

5.1 Consultation with the public and stakeholders:

Transport Canada has consulted with the Government of Nunavut for input for the project. No concerns have been raised. TC has also applied to the Nunavut Impact Review Board (NIRB) to review the project and to determine if any land permits are required. TC has submitted an application for a Water License to the Nunavut Water Board (NWB).

5.2 Consultation with other federal departments and agencies:

Transport Canada has registered the project on the CEAA database (CEAR) for public consultations. Under the NIRB review, they will send the project to other federal departments for review and comments. These comments will be provided to TC for review and subsequent response.

5.3 Consultation with other jurisdictions:

Transport Canada will contact Nunavut Impact Review Board to ensure that their environmental concerns and requirements are addressed and implemented as part of the project scope of work. Other federal departments will provide comments to TC for response.

6.0 REFERENCES

References for this Environmental Assessment are listed below.
The Effective Project Approval Document (EPA) prepared for the Iqaluit Airport Utilidor Asbestos Abatement. Previous studies and investigations conducted by Pinchen Environmental with photos. Ecozone information was obtained from the Natural Resources Canada Website Forest Ecozones of Canada webpage.

7.0 ENVIRONMENTAL EFFECTS & MITIGATION

7.1 ENVIRONMENTAL EFFECTS CHECKLIST (For all project phases)

Valued Ecosystem Component	Potential Project Effects						Residual Effects	
	Significant Adverse Effect?			Can Be Mitigated?			Significant?	
	Yes	No	N\A	Yes	No	Unknown	Yes	No
Species/Habitat of Special Status (including SARA) Vegetation/ Wildlife/Habitat			X					
Vegetation			X					
Wildlife			X					
Fish and Fish Habitat			X					
Marine			X					
Soils			X					
DrinkingWater			X					
Groundwater			X					
Surface Water			X					
Wetlands			X					
Air Quality	X			X				X
Noise			X					
Vibration			X					
Land Use			X					
Human Health[1]	X			X				X
Socio-economic Conditions[1]	X			X				X
Physical/Cultural Heritage[1]			X					
Aboriginal Use of Traditional Lands/Resources[1]			X					
Structures/Sites of Significance[1]			X					
Other			X					

Factors to consider for their potential impacts on the above components

Cumulative Effects		X		X				X
Accidents/Malfunctions		X		X				X
Wastes and Hazardous Wastes		X		X				X
Other			X					

Environment on the project

Effects of Environment on the Project		X		X				X

7.2 DISCUSSION OF EFFECTS AND PROPOSED MITIGATION

7.2.1 Site Preparation and Construction

Valued Ecosystem Component: Air Quality
Description of effect: Possible disturbance to friable asbestos and release of particulate
Description of proposed mitigation: A licensed Asbestos Abatement Contractor will be retained to ensure asbestos is removed and disposed of according to the appropriate regulations. Air quality monitoring will occur during all removal phases of this project. The contractor will develop and implement a health and safety plan to address the potential health and safety issues and concerns.
Residual effect: None

Valued Ecosystem Component: Human Health
Description of effect: Friable asbestos potentially could cause some human health concerns.
Description of proposed mitigation: A licensed Asbestos Abatement Contractor will be contracted to ensure asbestos is removed and disposed of according to the appropriate regulations. The contractor will develop and implement a health and safety plan to address the potential health and safety issues and concerns. In addition the asbestos work area will be secured and appropriate signage posted to ensure employees and facility users are aware of the removal activity. Asbestos removal workers will be fitted with the proper PPE during all phases of the project. In addition, air monitoring will be conducted and samples will be taken to ensure site safety.
Residual effect: Once the asbestos has been removed from the building, there should be no residual effects and potential exposure to asbestos should be non-existent at the machine shop.

Valued Ecosystem Component: Socio-Economic Conditions
Description of effect: Impact on daily operations at the Airport.
Description of proposed mitigation: The Asbestos Abatement Plan will be coordinated with the licensed contractor and all facility users to ensure that health, safety and security are not compromised during all phases of the project.
Residual effect: The asbestos removal will not hinder daily operations at the Airport and should have minimal impact on the overall operation at the airport. No residual effects.

7.2.2 Operation and Maintenance

No valued ecosystem components were identified.

7.2.3 Decommissioning

The services for the utilidor have been disconnected (electrical and water). The removal of the utilidor will greatly enhance the drainage at this site and remove any health, safety and environmental risk. This will have a positive effect on the environment and the social-economic aspects for Iqaluit.

7.3 Cumulative Effects

No existing or future projects or activities have been identified as having a Cumulative environmental effect. After the remedial work is complete, the asbestos health issues should be resolved. This will have a positive health and safety effect at the airport and for the environment.

7.4 Accidents and Malfunctions

Airport employees and facility users could be exposed to asbestos particulate if an incident occurred. The licensed Asbestos Abatement Contractor will have a security and health and safety plan in place for the duration of the project activities. No residual effects are likely.

7.5 Any Other Matter

No significant adverse environmental effects are likely.

7.6 Effects of the Environment on the Project

Sustained strong winds or wind gusts and inclement weather could delay the implementation or stop work in progress. No significant adverse residual effects are likely.

7.7 Environmental Considerations

1. Consult with the local governing jurisdictional (Government of Nunavut) and seek their input and satisfy their environmental regulatory requirements and health and safety concerns.
2. Dispose of all waste by approved methods at an approved facility.
3. Ongoing testing of air quality to determine its status and compare to accepted health and safety standards.
4. Ensure a Plan of Operations is in place, which includes the development of a health, safety and security operational plan to be implemented for the duration of the project.
5. A licensed Asbestos Abatement Contractor will perform the required asbestos work.

8.0 CEAA DETERMINATION

On the basis on this screening, the Department has determined, in accordance with subsection 20(1) of the Act, that the impact of this project on the environment is as follows;

[X] The project is not likely to cause significant adverse environmental effects: the project can proceed with application of the mitigation measures specified in this report.

[ ] The project is likely to cause significant adverse environmental effects that cannot be justified. The project does not proceed.

[ ] Refer the project to the Minister of the Environment for referral to a mediator or a review panel because:

- [ ] of uncertainty as to whether the project is likely to cause significant adverse environmental effects;
- [ ] the project is likely to cause significant adverse environmental effects;
- [ ] of public concern.

9.0 FOLLOW-UP PROGRAM

Follow-up program required for this project Yes [ ] No [X]

If yes, provide details of the follow-up program.

10.0 SIGN-OFF

Mitigation required for this project Yes [X] No [ ]
Follow-up program required for this project Yes [ ] No [X]

Environmental Screening Report prepared by:_____Date: _____
Title: Environmental Officer

The above has completed this environmental screening report to the best of her/his ability or knowledge.

Environmental Screening report recommended for approval by:
_____Date: _____
Title: Manager, Environmental Affairs

The above has reviewed this environmental screening report and certifies that it complies with the requirements of the CEAA.

Environmental Screening Report Approved by:
_____ Date: _____

Title: Regional Director, Programs

The above agrees with the CEAA determination indicated in this environmental screening report and accepts responsibility for ensuring the implementation of mitigative measures or for ensuring the design and implementation of follow-up programs, if any, identified in this report.

Environmental Screening Report Decision Acknowledged by:
_____ Date: _____

Title: Environmental Officer

The above acknowledges receipt of the environmental screening report and accepts responsibility for implementing the specified mitigation measures and/or follow-up program. The above also acknowledges that upon completion of project works, formal confirmation will be provided to Transport Canada that the specified mitigation and/or follow-up program was implemented and will provide the effects or results on the project.

11.0 CEAA CERTIFICATION

Pursuant to section 39 of the Canadian Environmental Assessment Act (the Act), we certify on behalf of the Minister of Transport that an environmental assessment of this project has been completed in accordance with the requirements of the Act and is duly signed by the Responsible Authority who exercises a power or performs a duty or function referred to in paragraph 5(1)(c) of the Act.

Prepared by: _____ Date: _____

Title: Environmental Officer

Recommended by: _____ Date: _____

Title: Manager, Environmental Affairs

Approved by: _____ Date: _____

Title: Regional Director, Programs