AN ENVIRONMENTAL MANAGEMENT AUDIT OF THE

NORTHERN AFFAIRS PROGRAM

LAND & WATER MANAGEMENT ACTIVITIES ASSOCIATED WITH MINING

(NORTHWEST TERRITORIES REGION AND HEADQUARTERS)

REPORT

Departmental Audit and
Evaluation Branch

Department of Indian Affairs
and Northern Development

Project 93/06-3
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Executive Summary

BACKGROUND

Land and water management activities associated with mining in the N.W.T. are complex and subject to constant public scrutiny. In a working environment that has seen two reorganizations since 1993 - along with a reduction of resources and an increase in legislative requirements - the N.W.T. Region has adequately addressed the needs of the mining industry in the context of the requirements of environmental legislation.

This audit is an extension of the environmental audit performed in the Yukon Regional Office, covering all land and water management activities associated with mining. These include all functions from the processing of prospecting licences to mining itself and, eventually, closure and site remediation.

OBJECTIVE AND SCOPE

The objective of the project was to assess the effectiveness of the NAP's environmental management responsibilities for land and water issues associated with mining in the N.W.T. from three perspectives:

- compliance with enabling legislation;
- risk management; and
- environmental management activities.

The audit covered the Natural Resources and Environment Directorate, the Operations Directorate, and the Policy and Communications Directorate of the N.W.T. Region.

OVERALL ASSESSMENT

The department is in compliance with all environmental and mining related legislation. However, the delivery process could be improved with the implementation of a few straightforward recommendations.

Control over abandonment and restoration planning is adequate, but a formal mine site reclamation policy is required to be developed by Headquarters. The department does not have adequate policies or guidelines on security deposits from mine owners.

The region would benefit from a sustainable development policy in its efforts to balance economic development efforts with environmental stewardship responsibilities.

KEY FINDINGS

Compliance with legislation

The audit team found that the department is in compliance with all environmental and mining-related pieces of legislation, including the *Canadian Environmental Assessment Act* (CEAA), the *Fisheries Act* (FA), and the *Canadian Environmental Protection Act* (CEPA). However, the corrective action for the following observations would improve the process :

- there is a lack of established criteria necessary for the referral of amended land use permits to additional Level II screenings; and

- there is a lack of a formal communications mechanism to ensure that all DIAND-enforceable mitigation measures recommended by the Regional Environmental Review Committee (RERC) are contained in the terms and conditions of permits.

Risk Management

The N.W.T. Region has adequate controls in place for abandonment and restoration planning as required under legislation; however, there is still no mine site reclamation policy in place. This finding has already been reported in two previous internal audits.

Moreover, there are no adequate departmental policies or guidelines established on the collection of security deposits from mining operators in the event that a site needs to be remediated at some future date. This has led to conflicting interpretations of security deposit requirements under current legislation.

The N.W.T. Region has shown strong initiative in the development of a formal risk management framework for inspection and monitoring of operations, including mining operations.

Environmental Management

The N.W.T. Region does not yet have a sustainable development policy in place. This is a weakness that was first identified in an internal audit in 1993. Development of such a policy - which is a headquarters responsibility - would go a long way toward establishing a consistent balance between the need for economic development in the North, and the department's environmental stewardship responsibilities including health and safety and legal obligations for clean-up and for the reclamation of abandoned mine sites.

Recent amendments to the *Auditor General Act* will create a Commissioner of the Environment and Sustainable Development within the Office of the Auditor General of Canada to monitor the impacts that every departmental operation has on the environment.

These amendments will require each department to prepare a sustainable development strategy and to update its sustainable development plan every three years.

This important task will require coordinated efforts and involvement of headquarters and regional management.

In summary, the N.W.T. Region is managing its land and water activities related to mining in an effective and compliant manner.

KEY RECOMMENDATIONS

1. The Regional Director General, N.W.T. Region, should ensure that a communication link is established between regional officials who are regulators and the regional representative of Regional Environmental Review (RERC) (Manager, Environment and Conservation) so that all DIAND-enforceable mitigation measures are included in the terms and conditions of permits (as RERC intended them to be) and, that they are appropriately enforced.

2. The Director General, Natural Resources and Environment Branch, headquarters, in consultation with the region and other stakeholders, should ensure that a mine site reclamation policy is established as soon as possible to guide the calculation of security deposits by all NWT Region branches such that a consistent interpretation of the governing legislation over requesting security deposits is established. Moreover, this policy - once developed - should be reviewed periodically to ensure that it remains appropriate to the needs of the department and its stakeholders.

3. The department should ensure that funds continue to be made available to meet the departmental health and safety and legal obligations for clean-up and for the reclamation of abandoned mine sites.

OVERALL MANAGEMENT RESPONSE

NATURAL RESOURCE AND ENVIRONMENT BRANCH

The branch is in the process of developing a formal mine site reclamation policy for the N.W.T. It is anticipated that its will be completed by the spring of 1996. The policy will include guidelines on security deposits for mine owners.

As part of the government-wide initiative to develop sustainable development strategies, the Natural Resource and Environment Branch is working in conjunction with the Indian Programm to develop an overall DIAND strategy. Consultations will begin in the spring of 1996 with the strategy scheduled for completion by December 31, 1997.

NORTHWEST TERRITORITIES REGION

The region will strengthen and formalize the feedback linkage and will develop performance indicators to ensure that environmental assessment quality can be measured and improved.

A staff training package and a process to assess cumulative effects will be developed. The results of the above actions will be used to provide consistency in the approval process and to ensure that cumulative effects and threshold limits are considered when amendments are made to land use permits. The region is revising the terms of reference and the membership of Regional Environment Review Committee to ensure a better communication link between regulators, so that the proper mitigative measures are included and enforced.

Introduction

BACKGROUND

DIAND is the federal agency responsible for the sustainable development of the North through the management of natural resources, the protection and management of the environment, the fostering of economic and employment opportunities and the funding of the Yukon and Northwest Territories governments that provide services to territorial residents.

The Departmental Audit and Evaluation Branch (DAEB) first reported to the Departmental Audit and Evaluation Committee (DAEC) on the department's Environmental Management Framework (EMF) in December 1993. In March 1995, the branch reported on the land and water management activities associated with mining in the Yukon Region and headquarters of the Northern Affairs Program (NAP), and the British Columbia, Alberta, and Ontario Regions, and headquarters of the Indian and Inuit Affairs Program (IIAP).

This audit of the Northwest Territories Region is an extension of the mining audit of the Yukon Region.

The components of DIAND's EMF are understood by DAEB as being the combination of environmental legislation, resources, planning activities, environmental policies and directives, environmental operating guidelines and the organization structure that supports the implementation of a defined set of environmental management priorities and actions.

AUTHORITY FOR THE AUDIT

In the 1993-1994 Audit Plan, the DAEC approved the audit of the land and water management sectors of DIAND's EMF for mining activities in the NAP and IIAP. In 1994, the DAEC approved an extension of the audit to include the N.W.T. Region of the NAP.

OBJECTIVE

The objective of the project was to assess the effectiveness of the NAP's environmental management responsibilities for land and water issues associated with mining in the N.W.T. from three perspectives :

- compliance with enabling legislation;
- risk management; and
- environmental management activities.

SCOPE

The audit covered the Natural Resources and Environment Directorate, the Operations Directorate, and the Policy and Communications Directorate of the N.W.T. Region.

AUDIT METHODOLOGY

The assignment was carried out by a multi-disciplinary team having experience in geophysical processes, environmental assessment, environmental legislation, organizational auditing and management systems auditing.

Through interviews, file and document examinations, system documentations, logic modelling and reviews of legislation and regulations, a number of key issues were identified. An audit program was developed in support of the detailed examinations carried out for each issue.

STRUCTURE OF THE REPORT

The following section contains an overview of the N.W.T.'s mining activities and the N.W.T. Region's mining and environmental regulatory regime within which the region operates. The descriptions are meant to assist those readers not familiar with the region's legislative regime in understanding its complexity and impact on both the mining industry and on the department's environmental management function.

For those readers familiar with the N.W.T.'s legislative regime, it is suggested that they by-pass the “Overview” section and begin with the “Detailed Findings and Recommendations” section.

Also, for all the readers, a Glossary of Terms explaining acronyms is attached as Appendix A.

Overview

OVERVIEW OF THE MINING ACTIVITIES IN THE NORTHWEST TERRITORIES

Mining is administered primarily through DIAND's N.W.T. Regional Office in Yellowknife, and through district offices in Yellowknife, Inuvik, Fort Simpson, Fort Smith, Rankin Inlet, and Iqaluit.

Exploration activity has increased substantially since 1991. According to an exploration survey conducted by the N.W.T. Chamber of Mines on behalf of the Government of the Northwest Territories (GNWT) Department of Energy, Mines and Petroleum Resources, the total N.W.T. exploration costs for 1991 were estimated to be $30 million. In 1994, N.W.T. exploration costs were estimated to be $87.2 million.

Over half of this amount was spent in the search for diamonds. Advanced exploration and bulk sampling for diamonds is being conducted by Broken Hill Proprietary at its Koala camp site in the Lac de Gras area. This diamond mine proposal is currently being reviewed by an Environmental Assessment and Review Process (EARP) panel.

The increased exploration activity is demonstrated through the increase in claim-staking activity, as shown in the following table. This data was obtained from the Mining Recorder's Office (MRO).

Mining is an integral part of the N.W.T. economy. In 1994, the industry produced 75 percent of the value of goods and 25 percent of the Gross Domestic Product of the N.W.T. In 1993, total metal production, in terms of dollar value, for the N.W.T. was $387,217,230.

The total area of mining operations in the N.W.T. (i.e., all old and current mines) is less than 12,000 hectares. This is comparable in area to the city of Yellowknife.

Mining methods in the N.W.T. include open pit and underground operations. Some of the potential impacts to the environment include :

- concentration of toxic waste materials;
- possible lake drainage or diversions of streams;
- aesthetics;
- possible disruption of wildlife;
- increased human access; and
- permafrost disruption.

Currently, there is no placer mining in the N.W.T.

TABLE I

YEAR	# OF CLAIMS STAKED/YR	# OF ACRES STAKED/YR
1990	441	877,440
1991	831	1,646,080
1992	7,913	17,736,833
1993	13,904	29,188,615
1994	3,705	7,073,797

There are six operating gold mines and two operating lead-zinc mines in the N.W.T. *Table II* outlines the production activity of the operating mines in the N.W.T. for 1993 and 1994.

TABLE II

		1993[1]		1994 ESTIMATES	
MINE	COMMODITY	ORE MILLED (TONNES)	PRODUCTION	ORE MILLED (TONNES)	PRODUCTION
Colomac	Gold, Silver	Not Operational	Not Operational	1,231,978	2,133 kg Gold 43 kg Gold
Con	Gold, Silver	366,036	3,710 kg Gold	322,056	4,194 kg Gold 1,004 kg Silver
Giant	Gold, Silver	374,763	2,890 kg Gold	397,354	3,708 kg Gold 342 kg Silver
Lupin	Gold, Silver	772,934	6,763 kg Gold	725,760	5,597 kg Gold
Mon[2]	Gold	2,642	43 kg Gold	1,452	23.3 kg Gold
Ptarmigan	Gold	32,659	227 kg Gold	26,176	215 kg Gold
Nanisivik	Zinc, Lead, Silver	724,000	53,000 t Zinc 300 t Lead 16800 kg Silver	750,000	50,000 t Zinc 1,000 t Lead 16,000 kg Sil.
Polaris	Zinc, Lead	1,026,800	94,198 t Zinc 24,980 t Lead	1,000,000	128,000 t Zinc 34,000 t Lead

1. based on company 1993 annual reports.
2. estimates provided by personal communication.

CHALLENGES FACING GOVERNMENT

Mining activity is extremely difficult to predict. In most instances, a mining proponent does not know how much ore may be available from a particular find when he is initially exploring the land. Moreover, if a viable deposit is discovered, the mining proponent still may not be absolutely sure of his requirements in terms of buildings, air strips, roads, and so on.

Since the nature of mining is unpredictable, the job of DIAND environmental screeners and managers can be arduous at best. The region is faced with the task of establishing a balance between the department's economic development needs and its environmental stewardship responsibilities. This is made all that more difficult when the delineation of "exploration" activity and "development" activity is unclear.

Moreover, because mining is such an integral part of the northern economy (yet may also have a major environmental impact), there is no shortage of interest in mining-related activities from various stakeholders, including mining, environmental, and Aboriginal groups.

At the end of the day, the department must be able to assure itself that it is meeting its legislative requirements while at the same time, meeting the needs of its clients. This is not an easy task to accomplish.

REGIONAL REORGANIZATION

The region has undergone two reorganizations since August 1993. DIAND N.W.T. Region was initially reorganized to amalgamate the NAP and the IIAP. The second reorganization reduced the region from eight directorates to six. In particular, the former Minerals and Economic Analysis Directorate was eliminated and its functions were reassigned to the following three groups :

Natural Resources and Environment

Now administers Crown lands through the regulation of surface use and disposition and subsurface mineral disposition

Operations

Now provides mineral resource information, including archives, geological research and mapping.

Policy and Communications

Now participates in intergovernmental assessments of resource and infrastructure development proposals; facilitates industry/public dialogue, and coordinates federal involvement.

As a result, the mining industry believes it has lost its advocate at the regional management table; however, the former Director of the Minerals and Economic Analysis group continues to act as a focal point for the mining industry in his position as Director, Policy and Communications. In addition, a Mining Management Committee is being established to provide a discussion forum for all mining issues and related concerns in the region. This committee will consist of senior regional DIAND officials, i.e., the Director, Natural Resources and Environment; the Director, Operations; and, the Director, Policy and Communications.

MINING LEGISLATION

There are a number of federal statutes which managers in the N.W.T. Region must administer, covering specific mining activities, environmental assessments and environmental protection. Mining activities in the N.W.T. are governed primarily by the *Territorial Lands Act*, and by the *N.W.T. Waters Act*.

TERRITORIAL LANDS ACT

The TLA establishes the administration and control of most land use activities on Crown lands. The three regulations with the most impact are the Territorial Land Use Regulations (TLUR), the Territorial Lands Regulations (TLR), and the Canada Mining Regulations (CMR). Under these regulations, DIAND controls land use activities through the granting of leases and permits, and the charging of fees, to ensure that any disturbance of the environment is minimized.

The three principal regulations under the TLA used to administer the rights to explore and mine minerals in the N.W.T. are discussed below.

CANADA MINING REGULATIONS (CMR)

The CMR govern the disposition of Crown-owned minerals. They are used to regulate prospecting and mineral claiming activities in the N.W.T. The regulations specify licence requirements, marking and recording of claims, work performance, lease rentals, and production royalties, among other procedures.

A valid prospector's licence is required for the following activities :

- prospecting for minerals;
- recording a claim;
- acquiring any recorded claim or interest by transfer;
- acquiring a prospecting permit;
- submitting an application for a certificate of work or a certificate of extension; and
- acquiring a lease of a recorded claim.

Any individual 18 years of age or older and any company that is registered in the N.W.T. may apply for a licence, which is issued by the MRO and must be renewed annually for a fee.

A prospecting licensee may obtain a prospecting permit to explore a large area before staking claims and without competition for a period of three to five years. Prospecting permits are used to encourage exploration of remote areas.

The right to enter lands in pursuit of Crown minerals under a prospecting licence is based on the principle of free entry. This system obliges the government to grant mineral exploration and development rights if a proponent appropriately applies for them. That is, if the proponent has met all the requirements for staking a claim or for applying for a longer term mining lease, the Minister is obliged to issue the disposition.

Once a claim is staked, the prospector must apply to record it at the MRO within 60 days. In order to maintain a claim in good standing, the department requires that representation work be conducted on the claim and reported to the department within a two year period. Such representation work could include trenching, drilling, geophysics or geochemistry surveys, blasting and other exploration activities. These activities, depending on their nature and extent, are regulated under the TLUR.

TERRITORIAL LAND USE REGULATIONS (TLUR)

The TLUR provide for the issuance of land use permits, which control most activities relating to mining involving the use of heavy vehicles, the establishment of large camps, the extensive use of explosives and clearing of lines, access roads or trails, and rights of way. Such activities may involve drilling , seismic operations, mineral exploration and construction of access roads. Threshold limits as defined in the TLUR (eg. the amounts of explosives permitted for seismic mapping) are used to determine the type of permit required for various types of exploration activities.

TERRITORIAL LANDS REGULATIONS (TLR)

The TLR provide for the sale or lease of territorial lands and set out applicable fees.

If a proponent's initial exploration work leads to the discovery of an ore body worthy of development, the land use permit holder may wish to apply for a long term surface lease to obtain security of tenure for use of the land surface. Similarly, the holder may wish to secure tenure in the mineral rights by applying for a long term mineral lease under the CMR.

N.W.T. WATERS ACT

The N.W.T. Waters Act was promulgated in 1992 and replaces the *Northern Inland Waters Act* (NIWA). The N.W.T. Waters Act provides for the conservation, development and utilization of water resources in the N.W.T. Under this Act, water licences are required to identify the general conditions for water use, construction, waste disposal, contingency planning, and abandonment and restoration. Applications for water licences are received and reviewed by the N.W.T. Water Board.

The *N.W.T. Waters Act* provides for issuing two types of water licences - type A and type B - depending on several criteria such as water use requirements, milling rates, and type of operation. Type A licences require the scheduling of a public hearing, while type B licences only require public notification that a water licence application has been received. However, a type B licence application includes the option of requesting a public hearing.

A recommendation is made by DIAND staff to the Minister for the approval or rejection of all type A water licences and those type B water licences which had a public hearing. The Chairman of the Water Board signs type B water licences that did not have a public hearing.

The environmental assessment process for type A licences is separated from the licensing/regulatory process. For type B licences, which constitute the majority of applications for all categories of water uses, the processes of licensing and environmental assessment are combined for efficiency. DIAND regional management indicated that there are plans to separate these two processes.

ENVIRONMENTAL LEGISLATION

There are a number of federal statutes that affect environmental management related to mining activities in the N.W.T. DIAND must comply with external legislation, including the *Canadian Environmental Assessment Act* (CEAA), the *Canadian Environmental Protection Act* (CEPA), and the *Fisheries Act* (FA). Note that, although DIAND complies with the FA, it does not enforce the FA.

CANADIAN ENVIRONMENTAL ASSESSMENT ACT

CEAA came into force on January 19, 1995. The Act is a major reform to the federal practice of environmental assessment under the *Environmental Assessment and Review Process Guidelines Order* (EARP GO).

CEAA has four stated objectives :

- to ensure that the environmental effects of projects receive careful consideration before Responsible Authorities (RAs) take action;
- to encourage RAs to take actions that promote sustainable development;
- to ensure that projects to be carried out in Canada or on federal lands do not cause significant adverse environmental effects outside the jurisdictions in which the projects are carried out; and
- to ensure that there is an opportunity for public participation in the environmental assessment (EA) process.

Although the EA process established by the Act is similar in many respects to the EARP GO, it does introduce changes in several important areas. These include :

- the definition of a "project";
- the definition of an "environmental effect";
- the introduction of comprehensive study and mediation as new EA tracks that a project might follow;
- requirements to keep an ongoing record of all documents related to the EA in a public registry;
- the requirement to consider the need for a follow-up program;
- inclusion of mandatory public notification in an EA at certain points; and
- the evaluation and assessment of cumulative effects.

The CEAA sets out, for the first time in legislation, responsibilities and procedures for the environmental assessment of projects involving the federal government. The CEAA brings a degree of certainty to the EA process and helps RAs determine the environmental effects of projects early in their planning stage.

Under Section 5 of the Act, EA is required of a federal authority that exercises one or more of the following duties, powers or functions in relation to a project :

- proposes a project;
- contributes any other form of financial assistance to the project;
- sells, leases or otherwise transfers control or administration of land to enable the project to be carried out; or,
- exercises a regulatory duty in relation to a project, such as issuing a permit or licence that is included in the Law List prescribed in the CEAA regulations.

There are two principal triggers for DIAND in the exercise of a regulatory duty in relation to a project. The first is determining whether the project is included in the Law List prescribed in the CEAA Regulations. If so, then there is a requirement to perform an EA pursuant to CEAA which, principally, would include all activities for which the department has administration and control of land and water in the N.W.T. (i.e., issuance of land use permits, leases, and water licences). Also, the remediation and clean-up of all old or abandoned sites would be addressed. The second trigger, which forms the basis for EA, is the regulatory disposition of the land or authorization for use of water.

CANADIAN ENVIRONMENTAL PROTECTION ACT

CEPA consolidates environmental protection provisions found previously in a number of other federal environmental acts. The Act sets out procedures to :

- monitor environmental quality and to establish objectives, guidelines and codes of practices;
- create a regulatory framework to control toxic substances;
- regulate nutrients that promote aquatic vegetation growth that degrades the water quality;
- regulate federal departments, agencies and Crown Corporations, works undertakings, and lands;
- regulate air and ocean pollution; and
- allow for the drafting of general regulations for environmental management.

Under CEPA, employees of all federal departments and agencies who endanger human health or cause damage to the environment are potentially liable.

DIAND's responsibility for the administration and management of northern Crown lands has significant impacts on the northern environment. Consequently, the department must assure itself that its operations are in compliance with CEPA and that it has taken all reasonable measures to support a due diligence defence if any of its employees are ever faced with charges under CEPA. For example, when a land use permit or lease expires, a site inspection is performed to ensure that all terms and conditions in the permit or lease have been met.

Section 125 of CEPA identifies the availability of the due diligence defence where reasonable and prudent measures are taken, depending on the particular circumstances, to avoid damaging the environment or endangering human health. Nine factors contributing to a due diligence defence as they apply to mining activities in the N.W.T. are discussed in the “Risk Management” findings of this report.

FISHERIES ACT

Sections 34 to 43 of the Act include the fish habitat protection and pollution prevention provisions. Section 36(3) of the Act prohibits the unregulated deposit of deleterious substances of any type in water frequented by fish except as prescribed by regulations made by the Governor in Council. A "deleterious substance" is defined broadly so enforcement is relatively straightforward.

Section 35(1) and (2) address the prohibitions regarding alterations, disruption or destruction of fish habitat. Section 37 allows the Minister to request plans and specifications, modify the plans, restrict the operation of the work or undertaking, and make regulations pertaining to any of the above.

As in CEPA, a due diligence defence is available to a party charged under the FA, if it can be proven that all reasonable and prudent measures have been taken. Therefore, the nine factors for a due diligence defence under CEPA should equally apply under the FA.

Detailed Findings and Recommendations

COMPLIANCE WITH LEGISLATION

The audit team reviewed the N.W.T. Region's activities to January 19, 1995, for compliance with EARP GO. Although no land use permits, water licences, or land leases had been issued under CEAA at the time the field work was conducted, the team reviewed the region's preparedness for implementing this act.

ENVIRONMENTAL ASSESSMENT PROCESS

Finding #1

The N.W.T. Region has an established process in place for assessing environmental impacts of proposed projects; however, implementation of CEAA screening requirements could be strengthened.

The audit team found that the general requirements for EA under EARP GO and CEAA are documented and implemented in the N.W.T. Region. However, a number of concerns were raised by the regional staff with respect to the implementation of CEAA.

EA requirements are communicated to mining proponents, Aboriginal groups, and the general public in the N.W.T. through contact with district managers and other regional personnel, or through participation in environmental review groups such as the RERC. the Lands Advisory Committee (LAC), and the Technical Advisory Committee (TAC).

On request, the Environment and Conservation Directorate distributes an information guide entitled "DIAND and the Environmental Assessment and Review Process" to prospective project proponents. This document will be revised to address the requirements of CEAA.

From the review of water licences, land use permit files and land lease files under the *N.W.T. Waters Act* and the TLA, the audit team found that the region is in compliance with the EA requirements under EARP GO. Furthermore, the audit team found that the N.W.T. Region is preparing to implement, or has implemented, CEAA in the following ways :

- establishment of a public registry pursuant to CEAA;
- an officer was seconded to the region from headquarters to assist in CEAA training and to develop regional processes;
- some training had begun and plans for additional training in 1995 are in place;
- a draft screening form for CEAA has been developed and was under review by regional personnel with responsibility for screening; and

· future plans include the development of :

  - a CEAA handbook for regional staff;
  - a one project/one assessment approach with other federal agencies; and
  - greater efficiencies through the use of automation.

Although the audit team found that the region is in compliance with the EA requirements under EARP GO, some issues were identified concerning the region's preparedness for CEAA.

They include:

· CEAA implementation (e.g., more rigorous screening requirements);

· staff training for meeting CEAA requirements; and

· determining operating parameters surrounding the notion of cumulative environmental effects.

Each of these issues is outlined below.

The following table outlines the assessment and screening responsibilities of the following regional units :

TABLE III

REGIONAL UNIT	AUTHORITY TO PERFORM LEVEL I ASSESSMENTS	AUTHORITY TO MAKE SCREENING DECISIONS
Lands Administration Division	✓	✓
Water Resources Division	✓	
All District Offices	✓	
Yellowknife and Inuvik District Offices	✓	✓
Economic Services	✓	✓
Environment and Conservation	✓	
Action on Waste Program	✓	✓
N.W.T. Water Board	✓ for Type B, no hearing	✓ for Type B, no hearing
RERC	✓	

CEAA IMPLEMENTATION

The implementation of CEAA requirements in the region will mean an increase in workloads. This will include a more detailed screening report, the submission of documentation and forms to a public registry, the identification of cumulative environmental effects and the preparation of comprehensive studies. These requirements are greater than those for EARP GO, and must be undertaken within existing resource levels. Since the region is moving from an established screening process (EARP GO) to a new, more involved process (CEAA) requiring more work - without obtaining any new resources to handle the increased workload - then there could be some risk that the quality of work for EA may be affected by the additional requirements of CEAA.

TRAINING FOR CEAA

To date, the principal training for CEAA requirements has consisted of a three day workshop conducted in February 1995. This workshop focused primarily on training for EA, which may be insufficient given the additional responsibilities of CEAA.

Because a number of those persons with EA responsibilities do not have formal training or backgrounds in EA, the level of preparedness for CEAA may be inadequate without further training and experience for the staff.

CUMULATIVE ENVIRONMENTAL EFFECTS

The audit team reviewed the regional processes in place to assess cumulative environmental effects.

Cumulative environmental effects are not defined in the CEAA; however, the *Responsible Authority's Guide*, prepared by the Canadian Environmental Assessment Agency, defines cumulative environmental effects as :

"the effect on the environment which results from the effects of a project when combined with those of other past, existing and imminent projects and activities. These may occur over a certain period of time and distance."

In February 1994, the N.W.T. Region conducted a workshop on the "Cumulative Effects of Development in the Slave Geological Province". Also, DIAND has initiated a five-year baseline study of the biological and biophysical resources in the area. Thus, efforts are underway to identify the cumulative effects in that area.

Some interviewees noted that the assessment of cumulative environmental effects will pose challenges to the region, including issues such as an increase in workload as well as the ability to address technical issues such as the spatial (the area over which the effects are considered) and the temporal (the time period being considered) scales of the cumulative EA. Regional guidelines that consider, for example, thresholds for cumulative environmental effects were not in place at the time of the audit.

RECOMMENDATION

1. The Director, Natural Resources and Environment, N.W.T. Region should ensure that performance measures are in place to maintain the quality of environmental assessments under CEAA that were achieved under EARP GO; that training for CEAA is appropriate; and that the requirements for assessing cumulative environmental effects are adequately defined and threshold limits identified.

LEVEL II CRITERIA FOR REFERRAL TO RERC

Finding #2

There is a requirement for better direction regarding referral criteria for Level II screenings.

Applications for land use permits or leases are received by the district offices or the Lands Administration Division in the regional office. Applications for water licences are received by the N.W.T. Water Board and are screened by the Water Resources Division on the Board's behalf. The projects are reviewed and assessed at a Level I screening if the impacts are easily mitigated with known technology, and if there is no significant public concern.

Projects requiring a Level II assessment are referred by the appropriate NAP-N.W.T. division to the N.W.T. RERC. The RERC is an advisory committee that carries out environmental assessments and makes CEAA (and previously, EARP GO) recommendations to DIAND regarding the environmental effects of a proposed project. DIAND, as an initiating department, makes its own screening decision based on input from RERC.

The audit team noted that there are no regional guidelines to identify when a Level I screening should be elevated to RERC for review at Level II. At present, the referral is at the discretion of the regulating body; however, the audit team found that more guidance is needed. For example, there is a need to clarify what a comprehensive study under CEAA is, and how one goes about doing it.

Guidelines, or direction, could be in the form of criteria or Environmental thresholds that are used to identify when an assessment is conducted by the regulator and when it is sent to the RERC for review. As an example, in August 1994, Broken Hill Proprietary applied for a permit to build an all-weather road from its Koala camp to Misery Lake - some 30 km away. The application originally went to one of the district offices for approval at Level I. It eventually was sent to RERC for screening at Level II; however, if a threshold existed whereby environmental effects from an all-weather road are referred to RERC, the application would have gone directly to RERC (Level II). This would have saved time and inconvenience for both the proponent and the district office.

Moreover, there is the chance that a number of incremental changes could be approved by a district office through amendments to an original land use permit. Once an application has been assessed and recommended by RERC - and subsequently granted by DIAND - the proponent does not normally have to go back to RERC if modifications to the permit are needed.

This may come about, for example, if a bear fence was originally proposed to be 100 m long, and the proponent later realized that it should be 110 m long. A simple amendment like this could be granted through a Level I screener.

Although the environmental impact of each individual amendment may not be significant, the sum of these incremental changes could cause a cumulative impact that would change the scope of the project from that outlined in the initial application. For example, suppose the proponent above kept amending his permit for 10 m of fence here and 10 m of fence there until the total length of the fence was 200 m. The application was approved based on - among other things - the length of the bear fence being 100 m. Through incremental amendments, the fence is now twice as long, changing the scope of the original application, yet not being reviewed by RERC. The risk to the region in this hypothetical instance would be that, if the cumulative impacts of these amendments are not appropriately addressed, it could be in non-compliance with CEAA.

RERC could establish guidelines for the regulators that define a threshold for cumulative amendments. Once the threshold is reached, the next proposed amendment would automatically be referred to RERC. Even though the assessment by RERC of cumulative effects after a certain threshold is attained may be limited by the ten-day turnaround time required for amendments, the cumulative environmental effects must be reviewed for all regulatory approvals, including amendments.

It is imperative and desirable that some decision-making responsibilities for amendments remain with those engineers at the district office level. The notion of referral criteria is not meant to take that responsibility away; rather, it is meant to assist the engineer in determining when an amendment needs to go to RERC (Level II).

RECOMMENDATION

2. The Director, Natural Resources and Environment, N.W.T. Region, should review the process for amending land use permits to ensure that incremental changes and cumulative environmental effects are considered. The process should include criteria, possibly in the form of threshold limits, for referring amendments to RERC.

MITIGATION MEASURES

Finding #3

There is no mechanism in place to ensure that all DIAND-enforceable mitigation measures determined in the screening decisions are included in land use permits, land leases, or water licences, and that the measures are being enforced.

Mitigation measures, recommended by RERC, under Level II assessment, can take two forms :

- those that are implementable through legislation by the department (i.e., through licences, leases and permits); and

- those that are directed to the proponent for action.

Under EARP GO and CEAA, there is a requirement to identify all enforceable mitigation measures in licences, leases and permits. The district offices, Lands Administration Division, and the Water Resources Division are responsible for including mitigation measures and for monitoring them.

The audit team noted that there is no formal reporting mechanism in the region to ensure that the licence, lease, or permit contains the measures as recommended by RERC and approved by DIAND, nor when and how they were monitored.

Without a reporting process, there is the risk that some approved mitigation measures may be omitted from the permit and, therefore, not enforced. In addition, those mitigation measures may not be appropriately interpreted as intended by RERC. This issue could be addressed simply through enhanced communication between the regulator and the regional representative of RERC.

RECOMMENDATION

3. The Regional Director General, N.W.T. Region, should ensure that a communication link is established between regional officials who are regulators and the regional representative of RERC (Manager, Environment and Conservation) so that all DIAND-enforceable mitigation measures are included in the terms and conditions of permits (as RERC intended them to be) and, that they are appropriately enforced.

CEPA/FA VIOLATIONS

Finding #4

The N.W.T. Region has a process in place to identify and mitigate potential CEPA and FA violations.

CEPA governs the use and storage of a number of toxic substances, most of which are not used in mining operations in the N.W.T. As a result, there have been very few CEPA violations identified by the region on mining sites.

DIAND, as a land owner, may be liable for violations under CEPA if a mine site has been abandoned and control for the land has shifted back to the department's responsibility. For those sites where the operator is still in place and solvent, the responsibility for CEPA violations rests with the operator.

Through the Arctic Environmental Strategy (AES) Action on Waste Program, DIAND has developed an inventory of sites that were abandoned prior to 1972 (i.e., prior to proclamation of the TLUR in November 1971). Each site has had, or is scheduled for, a detailed environmental assessment of its potential hazards, including any CEPA or FA violations. If DIAND identifies FA violations for these sites, the hazards are contained as much as possible, with further mitigation or clean up measures taken subject to availability of additional funding. If CEPA violations are identified, they are reported to Environment Canada and the hazards contained as much as possible.

According to DIAND N.W.T. regional staff, all abandoned mine sites in the N.W.T. have been identified and total 46. In the last three years, under the Arctic Environmental Strategy an Action Plan, 6 of the 46 abandoned mine sites have been cleaned up at the following costs, as shown in Table IV.

The cost estimate for clean up of the 40 remaining abandoned sites is $26,273,000. The costs associated with the two sites of highest priority amount to nearly $10 million :

- The Discovery Mine was closed in 1969, but acid-generating and mercury-contaminated tailings were left unremediated and spilled into a nearby lake, rendering the fish unsafe for human consumption. DIAND conducted an environmental assessment of the site to develop rehabilitation options that would prevent erosion of the mercury-contaminated tailings, minimize the acid mine drainage, and reclaim the tailings. The cost to reclaim this site is estimated to be $5.9 million; and
- The Rayrock uranium mine site was closed in 1957, and two piles of tailings material were left without containment or neutralization. They are a potential source of environmental contamination from radiation, heavy metals and acidification. The cost to reclaim this site is estimated to be $3.8 million.

For those sites where the operator continues to hold responsibility, potential violations are identified by DIAND or other regulatory agencies through regular inspections. In the N.W.T., DIAND has no authority to inspect and enforce under CEPA or the FA, but would notify the authorized agency if an infraction was observed.

TABLE IV

SITE	COST
Rankin Inlet Nickel Mine	$ 3,208,000
Philmore Mine (Outpost Island)	$ 500,000
Destaffany	$ 200,000
Beaulieu Yellowknife	$ 316,650
Copper Pass	$ 150,000
Stark Lake	$ 44,000
TOTAL	**$ 4,418,650**

In conclusion, a process is in place in the N.W.T. Region for identifying and mitigating potential CEPA and FA violations. The processes appear to be effective, as DIAND received an overall "Good" grade from the Environmental Protection Services Branch of Environment Canada in dealing with CEPA violations.

However, the AES Action on Waste Program is scheduled to terminate at the end of the 1995-1996 fiscal year. Without the funds for site remediation made available through this program, hazardous abandoned mine sites will likely not be able to be reclaimed or cleaned-up.

RECOMMENDATION

4. The Assistant Deputy Minister, Northern Affairs Program, DIAND should ensure that funds continue to be made available to meet the departmental health and safety and legal obligations for clean-up and for the reclamation of the abandoned mine sites.

RISK MANAGEMENT

SECURITY DEPOSIT POLICY AND APPLICATIONS

Finding #5

The lack of a departmental policy has led to conflicting interpretations by regional branches of the requirements to request security deposits under the *N.W.T. Waters Act* and the TLUR and TLR.

Under the *N.W.T. Waters Act* and its regulations, a licensee shall provide security deposit to the NWT Water Board for the following purposes :

- to compensate persons who were adversely affected by the issuance of a licence or by the licensee's use of water or deposit of a waste and who were not able to sue or otherwise be compensated by the licensee; and/or,

- to reimburse Canada for costs incurred in the undertaking of certain actions or the prevention or mitigation of adverse effects to persons or the environment from improperly closed or abandoned works.

These regulations further state that the amount of the security shall not exceed the aggregate of the costs of abandonment and restoration of the undertaking and any ongoing measures to be taken after the abandonment of the undertaking. The regulations also state that when fixing the amount of the deposit, the N.W.T. Water Board may consider :

- the ability of the applicant to pay the costs of abandonment and restoration and long term care; and

- the past performance of the applicant.

Under the TLUR and TLR, the Minister may, at any time, require that the lessee provide a security deposit.

The intent of these statutes is twofold :

- to provide assurances that the operator has sufficient money available for abandonment and restoration; and,

- in the event that DIAND must undertake the preventative measures, mitigation, and/or restoration, on behalf of an insolvent operator, incremental costs to the department will be covered.

Although the legislated authority exists to request security deposits, there is a need for a policy that provides for consistent interpretation and application. The Departmental Audit and Evaluation Branch reported that DIAND needs such a policy to guide the regions in recommending an appropriate amount for security deposits in two previous audits. As of March, 1995, no such departmental policy was in place.

In the absence of a departmental policy on determining security deposits, different operational groups within the N.W.T. Region have adopted their own practices to reflect their own interpretations of the legislation. They are described below.

- the Water Resources Division has developed a process to calculate security deposits based on the analysis of potential risks to the environment. The process is described in the draft discussion paper entitled *Calculating the Amount of the Security Deposit for Inclusion in a Mining and Milling Water Licence.* The total cost of restoration is generally not requested as a security deposit; rather, a weighting factor is applied to the total restoration costs calculated. The weighting factor takes into account such elements as the licencee's past performance and the potential adverse environmental impacts from the development.

  Security deposits are viewed as a demonstration of the operator's commitment to restore the site. The amount of security deposit requested varies based on the above criteria and is not a fixed amount or a fixed percentage of the total restoration costs.

- the Lands Administration Division has not requested any security deposits in the recent past, although under the TLUR they can request deposits up to $100,000. The division has some mining leases that have security deposits built in to the terms and conditions, but these were individually-negotiated contracts. Without a clearly defined standard in place for security deposits, none are being collected; however, the division's personnel indicated that the amount of a security deposit, if one was collected, should match that of the total cost of reclaiming the site.

  Lands Administration rely on the Water Resources Division and the N.W.T. Water Board to request a security deposit that would be for lands related reclamation, in addition to water-related reclamation. However, the Water Resources Division require their security deposits for water-related issues only. As a result, there is a lack of adequate security deposit coverage for lands-related reclamation issues; and

- the Operations Directorate determines the security deposits using an informal analysis of the potential risks.

In conclusion, the application of different approaches within the N.W.T. Region is evidence that DIAND requires an approved policy on security deposits for mine site reclamation. The policy should clearly specify the rationale for calculating the amount of the total reclamation required to be paid by the operator over a defined time period.

In establishing the policy, DIAND must be cognizant of the risks to the department of having to bear the cost of reclaiming an abandoned mine site as well as the financial burden that high security deposits place on new mining projects. As shown in Finding #4, the requirement for financial resources can be significant, i.e., $4 million spent to date with an additional $26 million projected, to clean up abandoned mine sites in the N.W.T.

Until such time as this policy is in place, different interpretations of the legislation and regulations will continue, with the potential for operators to receive inconsistent information from different units in the region.

RECOMMENDATION

5. The Director General, Natural Resources and Environment Branch, headquarters, in consultation with the region and other stakeholders, should ensure that a policy is established as soon as possible to guide the calculation of security deposits such that a consistent interpretation of the governing legislation over requesting security deposits is established and implemented. Moreover, this policy, once developed, should be reviewed periodically to ensure that it remains appropriate to the needs of the department and its stakeholders.

ABANDONMENT AND RESTORATION PLANS

Finding #6

The N.W.T. Region is required to conduct abandonment and restoration planning under the *N.W.T. Waters Act* and TLA, and this planning is appropriate.

Prior to 1972, many mining operations that ran out of ore would simply leave their buildings and other facilities in place when they shut down. In the early 1980s, the N.W.T. Water Board and DIAND began to include a condition that an Abandonment and Restoration Plan be prepared and submitted for approval before water licences and land leases were granted to mining companies.

In 1990, the *Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories* were developed by the N.W.T. Water Board and DIAND Land Resources Division to address land and water-related reclamation issues. The guidelines provide the mining industry with direction in the development and preparation of its plans. The rationale is that abandonment and restoration planning should be designed into each mining project in the early stages, rather than after the mine is developed.

The objectives of restoration, as described in the guidelines, are :

- to ensure that mine facilities, wastes and tailings are abandoned in such a manner that the requirement for long-term maintenance and monitoring is minimized;
- to prevent continued loadings of contaminants and wastes to the environment;
- to prevent acid mine drainage; and
- to return affected areas, to the extent possible, to a state compatible with the original undisturbed conditions.

The guidelines provide direction to DIAND-N.W.T. Region that if the proposed restoration technology does not satisfactorily prevent long-term degradation of the environment, a water licence or land lease may not be issued.

The N.W.T. Region requires that a conceptual abandonment and restoration plan be provided by the proponent after the water licence has been granted. The conceptual plan is gradually revised as the mine comes closer to closure and decommissioning. DIAND supports progressive reclamation during the operating phases of the mine, instead of starting reclamation when the mine closes. The need to update conceptual plans is specified in licence renewals through interim and final abandonment and restoration plans.

DIAND conducts ongoing inspections of land use permits, water licences and land leases to ensure that the holders are in compliance with their terms and conditions, including those addressing reclamation. For those land and water uses where satisfactory restoration has not taken place, DIAND continues to inspect the sites to ensure that appropriate reclamation has taken place. The department will not release the operator from his responsibilities until all terms and conditions of the lease or licence are met.

In conclusion, the N.W.T. Region has adequate controls in place for abandonment and restoration planning as required under the *N.W.T. Waters Act* and TLA, even though DIAND does not have a formal mine site reclamation policy in place. Note that the DAEB has already reported on the lack of a mine site reclamation policy in 1993 and 1995 internal audits. As of March 1995, no such policy was in place.

RECOMMENDATION

6. It is recommended that the Director General, Natural Resources and Environment Branch, in consultation with the territorial Regional Directors General, develop a Mine Site Reclamation Policy.

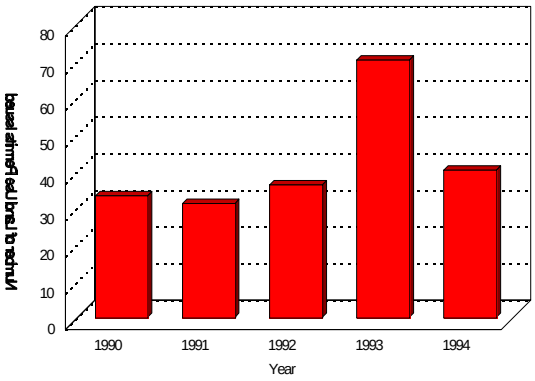
RISK MANAGEMENT FRAMEWORK FOR INSPECTIONS

Finding #7

The region has developed a formal risk management framework for inspection and monitoring of operations, which will be fully implemented in the 1995-1996 fiscal year.

Exploration activity has increased significantly since 1991, largely due to the discovery of diamonds in the N.W.T. Region. This increase is reflected in the number of claims staked and the number of land use permits issued by the N.W.T. Region. In the following figure, the increase in land use permits issued by the region between 1990 and 1994 is shown.

Mining & Exploration Land Use Permits
DIAND - N.W.T. Region



Inspectors in the N.W.T. Region are authorized to inspect and enforce the TLA and the *N.W.T. Waters Act*. In the past, inspections were prioritized on the basis of the history of compliance by the permit holder and the magnitude of the mining activity.

In 1993, it was recommended in the NAP A-Base Review that a risk management model for inspections be developed by the region to provide more objective ranking of the risks associated with N.W.T. mining operations.

In 1994, the N.W.T. and Yukon Regions developed a risk management model for inspections. The model provides a rationale for evaluating risks, calculating a numerical ranking and an associated cost estimate. The model has three components :

- the **Risk Assessment**, where the key facts, concerns, and potential hazards of the project, as well as an inspection plan, are described;

- the **Jury Review**, which is conducted by 3-5 members with relevant expertise. The responsibilities of the Jury include :

  - ensuring the quality of the risk assessment;

  - applying the risk ranking criteria in a systematic, consistent and transparent manner; and

  - estimating the severity and frequency ratings for each project.

- the **Risk Pyramid**, which is used to calculate a numerical value that represents the overall risk of the project or site. The projects or sites are then ranked first on the mandated requirement, and secondly, on the severity and frequency assigned by the Jury.

The primary factor that determines the number of inspections is resources available. As the program currently operates, the level of funding available is used as the threshold for conducting inspections. As such, it is the **funding** and not necessarily the **risk** that determines whether a site is inspected. With funding levels varying from year to year, there is the real possibility that potentially risk-prone sites which should be inspected more frequently will not be inspected.

Instead of varying the inspection schedule according to fixed, available funds, it would be advantageous to vary the funds according to a fixed, risk assessment threshold. Benchmarking of risks would then have to be considered. For example, the region could determine what the rest of the country does in terms of risk ranking and from these references, better focus the region's own program.

In conclusion, the risk management model has a number of advantages, including :

- the ability to objectively assess the environmental risks associated with a large number and type of sites;
- the ranking of priorities given limited resources; and
- the capability of calculating the costs of inspections.

With this model, the region will be able to inspect the sites of highest risk given the level of resources assigned to the Operations Directorate. Even though inspections should be determined more by risk than by funding, the audit team is not insensitive to the realities of the current fiscal environment faced by the region.

RECOMMENDATION

None.

Finding #8

The N.W.T. Region has a framework in place that addresses the factors associated with a due diligence defence under CEPA.

In 1992, the DAEB identified nine attributes that could be used in a self-administered risk management program that could ensure that DIAND has taken all reasonable steps to ensure compliance with CEPA and the FA. These attributes are used to determine if the organization has demonstrated due diligence (i.e., if the department has taken all reasonable steps to avoid impacts to the environment that could lead to prosecution under CEPA or the FA). These attributes were approved by the Deputy Minister as part of the scope of the 1993 Management Audit of DIAND's Environmental Function.

The findings relating to the nine attributes are described below.

1. Policies

The development and implementation of written policy statements endorsing compliance with laws.

The audit team reviewed the status of environmental policies and guidelines that provide interpretation of legislation. In the area of environmental assessment, the N.W.T. Region has prepared policy and guidelines for direction on EARP GO. Since January 1995, the region has started the development of policies and procedures for the interpretation of CEAA.

However, the audit team found an absence of a number of policies and guidelines, as discussed in other sections of this report. For example, the lack of a NAP security deposit policy was identified, which led to different applications of this requirement. Also, a sustainable development policy is not in place, resulting in a lack of consistent or formal basis for the approach to balancing economic development with environmental protection. Additionally, there is a lack of policy guidance in communicating the implementation of mitigation measures from the regulator to the RERC regional management.

2. Appointment and Authorities

The appointment of, and education of, environmental managers/coordinators with the duties and requirements of environmental legislation.

Environmental managers and inspectors are appointed with the duties and responsibilities of environmental legislation appropriate to their operations. DIAND water licence inspectors are granted authority under the *N.W.T. Waters Act*, and inspectors of land use permits are appointed under the TLUR.

3. Training

Ongoing training of staff in effective performance of functions required by legislation; in particular, with statutory requirements to notify environment ministries in respect of a spill and timely, adequate responses to environmental problems.

The audit team found that environmental managers in the N.W.T. Region have the appropriate knowledge and skills for their EA responsibilities; however, there are some concerns regarding the amount of training received by staff conducting environmental screenings under CEAA (see Finding #1).

DIAND staff are aware of the statutory requirements under the various environmental legislation (FA, TLA, *N.W.T. Waters Act*).

4. Resources, Equipment and Facilities

Ensuring the adequacy of, and accessibility to, equipment and facilities to enable compliance.

The audit team did not have any concerns with respect to the adequacy of equipment and facilities.

5. Manuals, Procedures and Emergency Plans

Establishment and updating of operating manuals and procedures and emergency/contingency plans.

The N.W.T. Region has several operating manuals and procedures that delineate environmental responsibilities and processes. Land manuals are in place in the N.W.T. to provide detailed procedural direction for administering land use permits. Inspections of regulatory instruments is guided through a comprehensive Enforcement and Inspection Manual. A series of guidelines were published by the N.W.T. Water Board.

As of March 1995, the region does not have a procedural manual for conducting CEAA screenings that clearly defines the responsibilities under CEAA; however, a CEAA specialist from DIAND headquarters was seconded to the region to prepare this manual.

The audit team did not find any issues with respect to the development of emergency or contingency plans. Such plans are part of the terms and conditions of the water licence and/or the land lease for a mine operation.

6. Monitoring

Implementation of environmental protection programs and regular continuous monitoring and maintenance thereof.

Regular monitoring and inspection of mining operations are conducted by Water Resources Division and the district offices. The inspections are prioritized in a risk management model prepared by the region. The model is discussed in Finding #7.

7. Communications

Timely communication with employees, including information updates, notices and reminders.

The audit team found that communications within the region regarding environmental responsibilities are adequate. Informal sharing of information was found to be effective. Additionally, formal communication mechanisms regarding environmental issues are in use, including committees, information updates, technical papers, memoranda, and reports of activities.

As noted in Finding #3, there is a requirement to improve the reporting of the implementation of mitigation measures to the regional management.

8. Record Keeping

Planned and orderly record keeping, documenting systems and events.

The audit team found that files are adequately maintained to record events and activities performed under environmental management responsibilities. The audit team reviewed several files of land use permits and surface leases, including the application, assessment and approval processes. In addition, the public registry, as required under CEAA, is in place and efforts are being made to establish an on-line information systems for all core environmental assessment data.

9. Studies and Programs

Studies and programs directed to air, water, waste, spills and impacts on land.

DIAND has commissioned and participated in various environmental studies, including the Northern River Basins Study and the Slave Geological Province Study.

In addition, under the AES Action on Waste Program, 46 mines sites in the N.W.T. have been identified as abandoned mines with associated environmental hazards. Many of these sites have had detailed EAs conducted to examine the hazards and suggest clean-up options. Environmental assessments for the remaining sites are expected to be completed in 1995.

In conclusion, with some exceptions as discussed above, DIAND N.W.T. Region has a framework in place that addresses the factors associated with a due diligence defence under CEPA and the FA on mining-related issues.

RECOMMENDATION

None.

ENVIRONMENTAL MANAGEMENT

SUSTAINABLE DEVELOPMENT STRATEGY

Finding #9

As reported in a Management Audit of DIAND's Environmental Function in 1993, DIAND - N.W.T. Region does not have a sustainable development policy. This policy would be an integral component of an overall Sustainable Development Strategy.

In 1993, the DAEB conducted an audit of the environmental management function of headquarters and the N.W.T. Region of the NAP. The audit recommended that a sustainable development policy be developed by the program. At that time, the need for a policy was based on the requirement to balance the departmental goals of economic development and environmental protection. The responsibility for the implementation of this recommendation was headquarters. At the time of the field work for this audit, the policy had not yet been developed.

A sustainable development policy remains a requirement for the N.W.T. Region. The audit found that there are different interpretations regarding the balance of resource development and environmental protection. A policy would be of benefit in providing overall direction as to the necessary balance.

The audit team noted that there are, at times, conflicting views as to the primary mandate of the N.W.T. Region : resource development versus environmental protection. Clearly, the answer is an appropriate balance between the two; however, without some policy clarification and definition of the approach to be used, there will continue to be conflicting opinions in the region.

In decisions regarding the approval of mining projects, some regional staff interpret the principle of sustainable development to mean that a decision is required to either proceed or not proceed with development, given known mitigation measures and the impacts on the environment. Others maintain that development should be allowed to proceed with the understanding that whatever necessary mitigation measures will address all significant environmental impacts of the project. Not surprisingly, the audit team found that representatives of each philosophy asserted that there is inadequate consideration of their view, and that the department has gone too far towards the opposite philosophy.

In addition to the audit recommendation of 1993 for a sustainable development policy, the Auditor General of Canada will require that all departments report on the establishment of a sustainable development policy. This requirement will be in place within two years of an amendment to the *Auditor General Act* to establish an Auditor General Commissioner for Environmental Audit.

In conclusion, the business of the N.W.T. Region is the management of a number of complex trade-offs, including the promotion of economic growth and the responsibility for environmental stewardship. The resolution of these trade-offs can be facilitated by clear departmental direction and a consistent approach to sustainable development.

RECOMMENDATION

7. The Director General, Natural Resources and Environment Branch, headquarters, should ensure that a sustainable development policy is drafted to provide a consistent direction and interpretation in maintaining the balance of resource development and environmental protection in daily decision-making.

Glossary of Terms

AES	Arctic Environmental Strategy
CEAA	Canadian Environmental Assessment Act
CEPA	Canadian Environmental Protection Act
CMR	Canadian Mining Regulation
DAEB	Departmental Audit and Evaluation Branch
DAEC	Departmental Audit and Evaluation Committee
EA	Environmental Assessment
EMF	Environmental Management Framework
EARP GO	Environmental Assessment and Review Process Guidelines Order
FA	Fisheries Act
GNWT	Government of the Northwest Territories
IIAP	Indian and Inuit Affairs Program
LAC	Lands Advisory Committee
MRO	Mining Recorder's Office
NAP	Northern Affairs Program
NIWA	Northern Inland Waters Act
NWT	Northwest Territories
RAs	Responsible Authorities
RERC	Regional Environmental Review Committee
TAC	Technical Advisory Committee
TLA	Territorial Lands Act
TLR	Territorial Land Regulations
TLUR	Territorial Land Use Regulations

Action Plan

A.R.C. SYSTEM / AUDIT AND EVALUATION BRANCH

REQUEST FOR ACTION PLAN / DEMANDE DE PLAN D'ACTION

PROJECT/PROJET : 93/06-3
DATE SENT / DATE D'ENVOI : 95.12.13
DATE DUE / ECHEANCE : 96.01.02

PROJECT TITLE / TITRE DU PROJET : MANAGEMENT AUDIT OF NAP (LAND & WATER MGT/MINING)

REGION OR BRANCH / REGION OU DIRECTION GENERALE : NORTHWEST TERRITORIES (NA) - REGIONAL DIRECTOR GENERAL

(1) RECOMMENDATIONS / RECOMMANDATIONS	(2) REPORT/ RAPPORT PAGE NO	(3) ACTION PLAN / PLAN D'ACTION (If space provided is insufficient please continue on blank sheet.) (Si vous manquez d'espace, veuillez continuer sur une page blanche.)	(4) REPONSIBLE MANAGER GESTIONNAIRE RESPONSABLE (TITLE / TITRE)	(5) PLANNED COMPLETION DATE / PRÉVUE DE MISE EN OEUVRE
1. The Director, Natural Resources and Environment, N.W.T. Region should ensure that performance measures are in place to maintain the quality of environmental assessments under CEAA that were achieved under EARP GO; that training for CEAA is appropriate; and that the requirements for assessing cumulative environmental effects are adequately defined and threshold limits identified.	14	The feedback linkage will be strengthened and formalized, and performance indicators will be developed to ensure that environmental assessment quality can be measured and improved. A staff training package is presently being organized and a process to assess cumulative effects will need to be developed.	Director, Natural Resource & Environment	97.01.04
2. The Director, Natural Resources and Environment, N.W.T. Region, should review the process for amending land use permits to ensure that incremental changes and cumulative environmental effects are considered. The process should include criteria, possibly in the form of threshold limits, for referring amendments to RERC.	15	The results obtained through the action plan for recommendation number one will be used to provide consistency in the approvals process and ensure that cumulative effects and threshold limits are considered when amendments are made to land use permits.	Director, Natural Resource & Environment	97.04.01

A.R.C. SYSTEM / AUDIT AND EVALUATION BRANCH

REQUEST FOR ACTION PLAN / DEMANDE DE PLAN D'ACTION

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3. The Regional Director General, N.W.T. Region, should ensure that a communication link is established between regional officials who are regulators and the regional representative of RERC (Manager, Environment and Conservation) so that all DIAND-enforceable mitigation measures are included in the terms and conditions of permits (as RERC intended them to be) and, that they are appropriately enforced.	16	The terms of reference and the membership of RERC are being revised to ensure a better communication link between regulators so that the proper mitigative measures are included and enforced.	RDG, NWT Region	96.04.01

A.R.C. SYSTEM / AUDIT AND EVALUATION BRANCH

REQUEST FOR ACTION PLAN / DEMANDE DE PLAN D'ACTION

PROJECT/PROJET : 93/06-3
DATE SENT / DATE D'ENVOI : 95.12.13
DATE DUE / ECHEANCE : 96.01.02

PROJECT TITLE / TITRE DU PROJET : MANAGEMENT AUDIT OF NAP (LAND & WATER MGT/MINING)

REGION OR BRANCH / REGION OU DIRECTION GENERALE : NORTHERN AFFAIRS (NA) - ADM, NORTHERN AFFAIRS

(1) RECOMMENDATIONS / RECOMMANDATIONS	(2) REPORT/ RAPPORT PAGE NO	(3) ACTION PLAN / PLAN D'ACTION (If space provided is insufficient please continue on blank sheet.) (Si vous manquez d'espace, veuillez continuer sur une page blanche.)	(4) REPONSIBLE MANAGER GESTIONNAIRE RESPONSABLE (TITLE / TITRE)	(5) PLANNED COMPLETION DATE / PRÉVUE DE MISE EN OEUVRE
4. The Assistant Deputy Minister, Northern Affairs Program, DIAND should ensure that funds continue to be made available to meet the departmental health and safety and legal obligations for clean-up and for the reclamation of the abandoned mine sites.	18	Waste clean-up is part of the ten-year program the department has developed. It is on going.	ADM, Northern Affairs	97.03.31
5. The Director General, Natural Resources and Environment Branch, headquarters, in consultation with the region and other stakeholders, should ensure that a policy is established as soon as possible to guide the calculation of security deposits such that a consistent interpretation of the governing legislation over requesting security deposits is established and implemented. Moreover, this policy, once developed, should be reviewed periodically to ensure that it remains appropriate to the needs of the department and its stakeholders.	20	This recommendation is linked to, but separate from recommendation no. 6 mine site reclamation policy. When this policy is complete, the department will determine if further policy of financial security is necessary. The ongoing work to develop models for calculating mine closure costs will be completed.	Director General, Natural Resource & Environment	96.03.31

A.R.C. SYSTEM / AUDIT AND EVALUATION BRANCH

REQUEST FOR ACTION PLAN / DEMANDE DE PLAN D'ACTION

PROJECT/PROJET : 93/06-3
DATE SENT / DATE D'ENVOI : 95.12.13
DATE DUE / ECHEANCE : 96.01.02

PROJECT TITLE / TITRE DU PROJET : MANAGEMENT AUDIT OF NAP (LAND & WATER MGT/MINING)

REGION OR BRANCH / REGION OU DIRECTION GENERALE : NORTHERN AFFAIRS (NA) - ADM, NORTHERN AFFAIRS

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6. It is recommended that the Director General, Natural Resources and Environment Branch, in consultation with the territorial Regional Directors General, develop a Mine Site Reclamation Policy.	21	A mine site reclamation policy is being developed at this time.	Director General, Natural Resource & Environment	96.03.31
7. The Director General, Natural Resources and Environment Branch, headquarters, should ensure that a sustainable development policy is drafted to provide a consistent direction and interpretation in maintaining the balance of resource development and environmental protection in daily decision-making.	26	A Sustainable Development Strategy is being prepared for December 1997. A period of consultation will begin in the spring of 1996, to define the policy and its implementation.	Director General, Natural Resource & Environment	97.12.31