



Indian and Northern
Affairs Canada

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REPORT

TECH. SERVICES

BRIEFING PAPER

ENVIRONMENTAL ASSESSMENTS

FOR CAPITAL PROJECTS

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REPORT
For Discussion Only



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ENVIRONMENTAL ASSESSMENTS

FOR CAPITAL PROJECTS

Canada

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Contracts Branch

EXECUTIVE SUMMARY

The Cabinet decision of December 20, 1973, on the Environmental Assessment and Review Process (EARP), required that federal departments and agencies must take environmental matters into account in planning and implementing projects, programs and activities initiated by them for which federal funds are solicited or federal property is required.

Cabinet policy was elaborated in the 1974 statement The Environmental Assessment and Review Process (EARP): Procedures and Responsibilities revised by Cabinet in 1977, and re-formulated in the Environmental Assessment and Review Process Guidelines Order (SOR/84-467 June 22, 1984). The latter was elaborated by the 1986 Federal Assessment and Review Office (FEARO) Initial Assessment Guide.

None of the above documents comprise guidelines which can be applied by federal agencies: the responsibility for development of such guidelines is specifically left to individual departments and agencies. This report discusses the development of an EARP system by Technical Services and Contracts Branch to facilitate its application to capital projects.

In order to develop a brief Departmental perspective, it deals with EARP as it relates to the two line Programs, Indian and Northern, and to the TS&C (E&A) function.

Section 3.0 describes the TS&C EARP system, its historical development and considerations basic to its development. It outlines the four principal components of the system, being:

- a. the promulgation of a Departmental Reference Manual (DRM 10-7/33 Environmental Impact Assessment);
- b. the promulgation of a number of technical support documents which complement guidelines in (a) above;
- c. the development of a (half-day) technical training course to facilitate EARP application to capital projects; and
- d. functional reviews, and capital project evaluations.

The progress of EARP application to capital projects is reviewed briefly.

Finally Section 4.0 Conclusions and Future Plans (TS&C) offers a number of conclusions related to continued improvement in DIAND and TS&C EARP programs.

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ANNEX

"A" - Technical Services and Contracts Branch Documents
Related to the Environmental Assessment and Review
Process (EARP) Policy

ENVIRONMENTAL IMPACT ASSESSMENTS FOR CAPITAL PROJECTS

EA-HQ-87-03

1.0 BACKGROUND

According to the Cabinet decision of December 20, 1973 on the Environmental Assessment and Review Process (EARP), federal departments and agencies must take environmental matters into account in planning and implementing projects, programs and activities initiated by them for which federal funds are solicited or federal property is required. Cabinet policy was elaborated by the Interdepartmental Committee on the Environment in its 1974 statement The Environmental Assessment and Review Process (EARP): Procedures and Responsibilities. (1)

Federal policy was updated and formalized in the Environmental Assessment and Review Process Guidelines Order (SOR/84-467 22 June, 1984). This in turn was elaborated on by the Federal Environmental Assessment Review Office (FEARO) in its April 1986 publication Initial Assessment Guide.

For the past few years Environment Canada and FEARO have been examining possibilities for a legislated EARP, perhaps similar to the Environmental Protection Act (EPA) in the United States. FEARO is actively studying this at the present time. The reason for this is in great part due to the relative failure of most federal agencies to implement cabinet policy. (2)

It may be that federal agencies are faced with two alternatives:

- (i) to lend management support to a flexible and practical EARP program; or
- (ii) to cope with a legislated EARP.

(1): The 1974 statement appears as Appendix B of DRM 10-7/33, Environmental Impact Assessment.

(2): See articles by Peter Calamai in the Ottawa Citizen of 21 November, 1983.

2.0 ENVIRONMENTAL IMPACT AND DIAND

In the context of DIAND, the interest in environmental impact assessment, and the responsibility for implementing the EARP policy is shared by the two operating programs, and by Technical Services and Contracts Branch in a supporting role which, centred on design and construction, is directly related to physical and chemical changes made to the landscape by construction, operation and maintenance of facilities, and therefore related to the concomitant environmental effects.

2.1 EARP in the Northern Program

Northern Program environmental responsibilities are largely related to regulatory functions of large scale mineral (hydrocarbon and mining) and resource exploration and development north of 60°. While Northern Program has used EARP as an environmental vehicle, it has in addition a number of statutory environmental responsibilities under a number of federal laws, including the Arctic Waters Pollution Prevention Act, the Northern Inland Waters Act, and the Territorial Lands Act. Individual environmental evaluations range from a few large, sophisticated projects requiring an environmental impact statement (EIS) such as the Norman Wells Oilfield Development Pipeline Project (1981) or the Lancaster Sound Offshore Drilling Project (1979) to many short evaluations related to water use and land use permits.

2.2 EARP in the Indian and Inuit Affairs Program

Indian and Inuit Affairs Program has the overall responsibility for the implementation of EARP with regard to a broad spectrum of activities in Indian reserves and communities. Until the establishment of the Indian Environmental Protection Branch, in early 1986, there had been limited activity related to EARP within the Program. The principal focus in recent years has been on resource development impacts (RDI's), the funding of Indian interventions

in provincial environmental procedures where Indian interests are threatened by third party development proposals. There is no Program EARP system as yet (excluding capital projects). There has only been one environmental impact statement (EIS) related to I&I.A. activities; the Shoal Lake (I.R. #40) Cottage Lot Development concerning the Band proposal to develop a summer cottage subdivision close to the water intake for the Greater Winnipeg Water District (Shoal Lake is on the Ontario-Manitoba border).

2.3 EARP in the TS&C (E&A) Area

The responsibility of Technical Services and Contracts Branch, and of E&A (TS&C) regional units, is generally restricted to the environmental aspects related to planning, design, construction and O&M - of capital projects. On request E&A and TS&C provide advice and assistance in broad scale planning, resource and economic development projects, and resource development impacts, either from the Northern or Indian Programs. Capital project expenditures, amounting annually to some \$330,000,000, represent a significant part of the departmental budget. The environmental implications of the typical E&A project are generally straightforward and are usually avoided/mitigated within normal project costs. The TS&C authority for environmental review is found in Organizational Directives, Part 2.1.6 ... (the responsibilities of the technical service function [as defined in Article 1.3 (a)] shall be:) ... "technical surveys and investigations, including the technical aspects of environmental assessment and review process;"

In terms of actual practice, because of the presence of considerable environmental expertise within Northern Program, at both Headquarters and in the two Northern regions, TS&C has not pursued its environmental terms of reference North of 60°, except for a minor contribution to the northern highways program. TS&C documents dealing with EARP (DRM 10-7/33 Environmental Impact Assessment and associated technical support documents) are, however, distributed to northern E&A units, along with other technical documents.

Technical Services and Contracts Branch has over the years collaborated closely with Indian and Inuit Affairs Program.

3.0 THE TS&C EARP SYSTEM

3.1 Early Development

Federal Government policy was outlined in the "Procedures and Responsibilities" statement referred to in 1.0 above. Within the statement were a number of key ideas which, however, were not elaborated sufficiently or systematically enough to comprise guidelines. This was left up to the individual department or agency. The focus of the Northern Program was largely on a project by project approach - understandable in view of the particular terms of reference. Parks Canada (then part of DIAND) and Indian and Inuit Affairs Programs did not actively participate in a joint development of an EARP system, but encouraged TS&C to develop guidelines (1976-1978).

The TS&C system was developed by reviewing the strengths and weaknesses in the practice of environmental impact assessment (EIA), and by examining the nature of EIA and of project management activities in the context of the typical capital project. Some of the basic considerations were:

- . compatibility with policy
- . applicability to widely differing regional conditions
- . sensitivity to departmental, program, regional structures
- . cost-effective approach to personnel and \$ resource use, and
- . the integration of approved findings in project planning and implementation

The result was the first draft of DRM 10-7/33 Environmental Impact Assessment (and the capital project). This was the subject of a two day conference in 1979 attended by Parks Canada and Indian Affairs personnel from across Canada, and by TS&C, Parks Canada, I&I.A. and Northern Program representatives from Headquarters. The guidelines were basically approved by the conference, subject to appropriate emphasis being placed on the primacy of the line programs in environmental matters. The outcome was DRM 10-7/33 in its present form.

3.2 The Current TS&C EARP System

The TS&C system is comprised of four major components.

- a. Departmental Reference Manual, DRM 10-7/33 Environmental Impact Assessment, formulated in 1978 and revised in 1984. See also (b) below.

This document develops a conceptual approach based on the existing project management framework. In the capital project context, it outlines policy, standards and guidelines for application throughout the project delivery system.

- b. Technical Support Documents (TSD's)
Nine such documents contain more "how to" guidelines to complement those in DRM 10-7/33. The 10 documents are listed in Annex "A". The key documents are DRM 10-7 and TSD-33-1 Guidelines for Environmental Screening.

- c. Technical Training Course
A half day technical presentation, "Environmental Impact and the Capital Project", has been developed to facilitate the application of EARP to regional projects.

Basically, it outlines the TS&C EARP system. A slide presentation of typical E&A impacts is included, along with a 20 minute FEARO video film, and a case study session. The presentation can be reduced to a half hour.

The course has been presented in Quebec City, and will be presented to three western regions in February, 1987.

- d. Functional Reviews
EARP application is reviewed in functional reviews conducted primarily to review architectural and engineering aspects. Similarly it is a feature of capital project evaluations. Associated with this aspect, EARP compliance is a feature of our capital project planning and approval requirements.

The essence of EARP is that it is a self-assessment process. Only the rare, complex and high public profile project is referred to the Federal Environmental Assessment and Review Office (FEARO) for specific guidelines leading to an environmental impact statement (EIS) and costly public hearings. The rarity of the EIS is illustrated by the fact that only some 34 projects have been referred to FEARO since 1974 - from all federal departments and agencies.

The EARP policy - and the TS&C EARP system - involves a three step approach, each level of which has an appropriate level of evaluation. the three levels are:

- a. the elementary level - Environmental Screening;
- b. the intermediate level - the Initial Environmental Evaluation (IEE); and
- c. the "full treatment" - the Environmental Impact Statement (EIS)

The first two levels are the in-house responsibility of the individual department, program or agency. All environment - related projects pass through level one, the environmental screening. It is estimated that for our capital projects we will fully comply with EARP requirements if 99 percent of our environment - related projects are thus screened (i.e. the screening will comprise the "end of the road" evaluation). The remaining one percent may require an intermediate evaluation, the IEE. The full treatment accorded the EIS, and public hearing, will be extremely rare.

Since at least two categories of EARP (and the decision to refer a third category project to FEARO) is totally the responsibility of each department or agency, the TS&C approach was to maximize the utility of EARP as an environmental planning tool operating within the existing framework of project management, while at the same time minimizing report writing. This is demonstrated in DRM 10-7/33 and TSD-33-1. For the typical capital project a one page table (p. 10 of TSD-33-1) will generally suffice as a completed environmental screening. The cost impact to project planning and implementation is normally minimal, and the application of EARP may even lead to reduced costs.

3.3 Progress of EARP Implementation

While EARP requirements are not applied - or applied partially - to many projects, there is an encouraging increase in interest in EARP, and many projects are now subjected to an EARP scrutiny. Requests to HQ for advice are increasing.

Functional reviews of the EARP content of individual projects are not practical, and it has been judged premature to conduct functional reviews of regional EARP programs (there was an environmental review of the Alberta Region projects in 1981 at the request of the Region). However, an EARP review is included in each capital project evaluation. Drafts of Treasury Board capital project submissions, and feasibility studies, are reviewed for compliance, and the E&A "project file cover" (a key project record) has been redesigned to incorporate EARP compliance.

4.0 CONCLUSIONS AND FUTURE PLANS (TS&C)

4.1 Conclusion

- a. While TS&C Branch is not yet satisfied with the level of compliance with EARP policy, with the completion of the technical support document publication process, the basic TS&C EARP system is in place and operating.

The key documents are in regional offices either in the restructured format of DRM 10-7/33 or in the old format DRM 10-7/59. (Parts of the latter have been revised as companion technical support documents to 33, and are in the publication process).

- b. In order to foster compliance with Cabinet EARP policy, consideration should be given to formulating Departmental or Program policies in support of EARP.
- c. The two operating Programs and, in the context of capital projects, TS&C Branch, each have particular viewpoints and interests which perhaps can be best safeguarded in the development of three EARP systems. It is, however, necessary to ensure an essential level of compatibility between systems either in place or developing.

4.2 Future Plans (TS&C)

- a. Within the TS&C EARP system framework outlined above TS&C Branch will continue to foster a higher level of compliance with Cabinet policy, and to respond to changing EARP needs.
- b. A review of the requirement for instituting functional reviews of regional EARP activities (i.e. of capital programs rather than individual projects) will be carried out.
- c. Requirement for the development of band training documents and presentations will be examined to help fulfil commitments to Vote 15 and to AFA.
- d. With regard to conclusions (b) and (c) above, TS&C Branch is ready to participate and collaborate with the two operating Programs with the intent of formulating departmental or program policies in support of cabinet EARP policy, and to ensure an essential level of compatibility between systems either in place or under development.

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TECHNICAL SERVICES AND CONTRACTS BRANCH DOCUMENTS
RELATED TO THE ENVIRONMENTAL ASSESSMENT AND REVIEW
PROCESS (EARP) POLICY

DRM 10-7/33	<u>Environmental Impact Assessment</u>	P
TSD-33-1	<u>Guidelines for Environmental Screening</u>	T
TSD-33-2	<u>Environmental Surveillance in Project Implementation</u>	T
TSD-33-3	<u>Environmental Contingency Planning in Project Implementation</u>	T
TSD-33-4	<u>Erosion and Sedimentation Control in Project Implementation</u>	T
TSD-33-5	<u>Guidelines for the Initial Environmental Evaluation</u>	T
TSD-33-6	<u>Federal, Territorial and Provincial Legislation Related to the Environmental Impact Assessment</u>	T
TSD-33-7	<u>Environmental Impact Assessment Related to Highways and Roads</u>	T
TSD-33-8	<u>Containing Oil Spills in Fuel Installation</u>	D
TSD-33-9	<u>Fire Hazard Abatement for Above ground Outdoor Fuel Tanks</u>	D

P= promulgated - in regional Engineering and Architecture (TS&C) offices

T= in translation

D= draft

Also available is a technical training course (1-3 hours duration), Environmental Impact Assessment and the Capital Project.

These documents were developed to facilitate the application of the EARP policy to the planning and implementation of capital projects. The intended users are therefore project managers, engineers, architects, physical planners, technologists and any others so involved.

"TSD" refers to "Technical Support Documents" which elaborate guidelines found in DRM 10-7/33.