



Ministry
of the
Environment

Ministère
de
l'Environnement

E-932

323-4542
11th Floor

135 St. Clair Avenue West
Suite 100
Toronto, Ontario
M4V 1P5

135 avenue St. Clair ouest
Bureau 100
Toronto (Ontario)
M4V 1P5

June 29, 1988

Mr. T. R. Lederer
Osler, Hoskin & Harcourt
Barristers and Solicitors
Box 50 First Canadian Place
Toronto, Ontario
M5Y 1B8

RECEIVED JUL - 4 1988

Dear Sir:

Please find enclosed a copy of Mr. Roger Clarke's witness statement.

Yours very truly,

John R. Tidball
Counsel
Legal Services Branch

c.c. D. Estrin
 S. Garrod
 T. Vigoda ✓
 M. McQuaid
 E. A. Cronk

JD1/RGWS/JRT/jd

BEFORE THE JOINT BOARD

IN THE MATTER OF the Regional
Municipality of Halton's Landfill
Environmental Assessment

WITNESS STATEMENT

OF

ROGER B. CLARKE
Supervisor
Environmental Assessment Branch
Ministry of the Environment

June, 1988

WITNESS STATEMENT OF ROGER CLARKE

I. QUALIFICATIONS

1. My Curriculum Vitae is attached as Appendix "A" to this Witness Statement.

II. PURPOSE

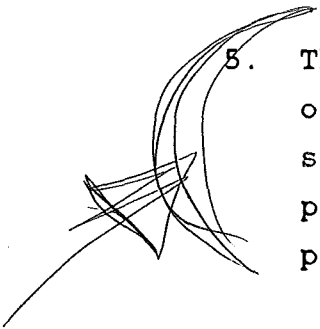
2. The purpose of this statement is two-fold:
 - (a) To present an overview of the EA process to assist in understanding how the EA Branch administers the Environmental Assessment Act.
 - (b) To demonstrate the application of the principles of environmental assessment to the Regional Municipality of Halton's EA.

III. THE ENVIRONMENTAL ASSESSMENT PROCESS

Environmental Assessment Act

3. The stated purpose of the Environmental Assessment Act is:

"... The betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the Environment." (Section 2, Environmental Assessment Act)
4. The Act is intended to provide for the protection, conservation and wise management of the environment through good planning and informed decision making.



5. The Environmental Assessment Act provides a process-oriented framework which can be used to structure the search for an acceptable means to respond to a problem or opportunity, which then becomes the proponent's undertaking.

6. There are two key sections of the Act which promote good planning.

(a) Clause 1(c) of the Act defines "environment" in the broad context of social, cultural, economic and technical aspects of the environment, as well as the natural environment.

(b) Subsection 5(3) of the Act describes the required contents of an environmental assessment submitted to the Minister of the Environment. It states:

"An environmental assessment submitted to the Minister pursuant to subsection (1) shall consist of,

(a) a description of the purpose of the undertaking;
(b) a description of and a statement of the rationale for,

(i) the undertaking,
(ii) the alternative methods of carrying out the undertaking, and
(iii) the alternatives to the undertaking;

(c) a description of,

(i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,
(ii) the effects that will be caused or that might reasonably be expected to be caused to the environment, and

(iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment,

by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and

(d) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking."

Pre-Submission Consultation (PSC)

7. Pre-submission consultation is the process of consulting with the affected parties before the environmental assessment is formally submitted. In this context, consultation means to identify affected parties, to provide them with information needed, to present and explain proposed planning activities and decisions to them, to seek their comments, and to modify as necessary to address their concerns before proceeding.

8. Pre-submission consultation is not a separate procedure conducted parallel to or after a planning process. The input of affected parties is an integral part of the planning process and begins at the earliest stages.

9. Pre-Submission consultation will be useful to the public, Government ministries and agencies, and other affected parties who want to participate in the planning process.

The Government Review

10. The Minister arranges for a Government Review to be prepared when an environmental assessment is submitted. The Government Review addresses the quality of the environmental assessment. It provides a balanced evaluation from the perspective of government ministries and agencies.
11. Upon receipt of the environmental assessment, the EA Branch circulates the document to government agencies for comments. This circulation includes the EA Branch who make comments in Part 3 of the Review, and the Ministry of the Environment technical review team who are included with other agencies in Part 4 of the Review.

Upon receipt of comments, the Review is prepared by the EA Branch and with the Notice of Completion is sent to the Minister for signing of the Notice and authority to release the Review to the public.

IV. THE HALTON LANDFILL ENVIRONMENTAL ASSESSMENT

12. I became the "Review Coordinator" for the Halton Landfill Environmental Assessment in June, 1985, at the end of the pre-submission consultation stage. Comments on the Halton process during pre-submission consultation were made by another member of the Environmental Assessment Branch who left the Ministry in June, 1985.

Pre-Submission Consultation (PSC)

13. The Ministry provided comments to Halton throughout Phase 1 and 2 of the process described in Exhibit H-0. Comments were provided separately by the EA Branch and by the Ministry's technical reviewers initially. A "one-window" approach was adopted in mid-1983.
14. The proposed selection and development of a landfill site in the Regional Municipality of Halton was an activity which became subject to the Environmental Assessment Act in February, 1981. The Region requested proposals from consultants for the study in June, 1982, and subsequently selected Walker, Wright and Young Associates (WWY) in July, 1982.
15. During the EA study process (August, 1982 to September, 1985), staff of the Ministry of Environment (Environmental Assessment Branch, Environmental Approvals and Project Engineering Branch and Central Region - Regional and District Offices) provided advisory services to the Region of Halton, to some of the area municipalities and public interest groups. In the terminology of the EA Branch, this entire period was considered to be pre-submission consultation (PSC).
16. The Regional Municipality of Halton submitted its Environmental Assessment Document to the Minister of the Environment for approval under the Environmental Assessment Act on October 28, 1985. The Government Review of Halton's Environmental Assessment Document, which is in evidence before the Joint Board as Exhibit E-109, was completed in February 1986.

Purpose of the Undertaking (page 16)*

17. The Environmental Assessment Act requires that a description of the undertaking and its purpose be provided. The purpose of the undertaking should address the "ends" while the undertaking should provide the "means" by which to achieve the desired end. The EA Review found that the Halton EA contains a clear statement of the purpose of the undertaking and appears to have been used in an appropriate manner in the planning process.

Rationale

18. The statement of rationale required under clause 5(3)(b) of the Act represents a proponent's evaluation of the decisions that were made throughout the process to select the undertaking from the alternatives considered. In particular, the EA should document and explain the reasons for the environmental criteria used to identify and assess the alternatives, the proponent's weighing of these criteria and the decision-making approach used.

- Macalister*
19. To make sure that the documentation of the planning process in the EA is easily traceable, the EA Branch advises that the document should ensure that:

- (a) the analysis is understandable to the reasonable lay observer,

*Page numbers indicate specific page in the Government Review, February, 1986.

(b) all conclusions drawn from the analysis follow logically from the information gathered and presented, and

(c) a reasonable lay observer is able to replicate the conclusions based on the information presented in the EA.

20. The Government Review concluded that it was difficult to trace the proponent's planning process in this Environmental Assessment because of a lack of both clarity and consistency in the documented decision-making process (pages 27 - 28). It was also difficult to accurately replicate the decision-making processes based on the information presented in the EA document. This problem was particularly evident in the selection of candidate areas and sites, and the overall ranking given the final six sites, as part of Stages 2B and 2C.

21. A qualitative rating and final "pair analysis" ranking scheme was used at Stage 2C to compare and rank the six plan areas. The appropriate use of a pairing analysis as a ranking methodology is dependent on the presence of certain key factors which include:

(i) all candidate sites are compared on an equal level of study data,

(ii) candidate sites are of a similar enough nature to be accurately compared,

(iii) a clearly superior alternative becomes evident based on the conceptual level study data.

The Review (Ex. E-109) found that "while the Site Plan areas are compared on a roughly equal level of study detail, it is apparent that not all of these Site Plan areas are of similar nature". "Therefore, an accurate comparison of the candidate sites of similar nature was not carried out". "From the documentation provided, it is difficult to conclude that there is a clearly superior site based on the generalized level of information collected".
(page 30)

Alternatives (page 32)

22. A proponent must consider both alternatives to the undertaking and alternative methods of carrying out the undertaking in order to meet the requirements of the Act. In the waste management field, a number of alternatives exist. These include landfill, waste export, incineration and the 4 Rs (recycling, reuse, recovery and reduction). In each case, there are various different methods of carrying out a particular alternative. For example, for a landfill alternative, these could include landfills at different locations, of different sizes, as well as different engineering or design. The EA Review found that Halton had looked at six major generic waste management technologies which are considered as alternatives to landfilling. The proponent had also considered an extensive number of candidate areas, sub-areas and six specific candidate sites at varying levels of detail which are considered to be the alternative methods of carrying out the undertaking. Therefore the EA Review concluded that the EA had considered both alternatives to the undertaking and alternative methods of carrying out the undertaking.

Mitigation/Enhancement Measures (page 34)

23. The purposes of identifying and evaluating mitigative and enhancement measures include:

- (i) eliminating or minimizing adverse environmental effects,
- (ii) enhancing positive environmental effects,
- (iii) determining what residual effects might be anticipated after implementation of mitigative and enhancement measures.

Point (iii) is called net environmental effects and is considered as an important feature in a good planning process by the EA Branch.

Net Environmental Effects (page 34)

24. Net environmental effects are derived in a three-step approach:

- (a) Describe potential effects; those effects that would result before action is taken to alter them.
- (b) Identify measures to reduce negative effects (mitigation) and increase positive effects (enhancement).
- (c) Subtract mitigation measures from the negative effects and add enhancement measures to the positive effects. The result will be the net environmental effects.

25. The Review (Ex. E-109) of the Environmental Assessment Document found that while the Region had considered mitigative measures, the consultant and the Region did not "utilize these measures fully as part of the method of analysis in Stage 1 and Stage 2A and B." "The planning approach taken by Halton would have been considerably improved had this been done. The analysis should contain a consideration of net effects for each alternative" (page 37) to facilitate good planning.
26. The type of analysis done by the Region was considered to be a "gross effects analysis", where any severe or high negative effect results in the elimination of an alternative from further consideration (page 37). As a result, some suitable sites may have been discarded because mitigative measures were not applied to them.
27. The failure to use net environmental effects evaluation processes was also evident in the Region's "worst case scenario". This scenario does not include consideration of the other components outlined by the Region, the probability of such an event or a consideration of potential mitigative measures. These measures could reduce the potential negative effects of the scenario and allow for a net effects comparison of the alternatives. (page 31)

Definition of Environment (page 37)

28. The broad definition of environment in clause 1(c) of the Environmental Assessment Act includes social, cultural, technical and economic factors as well as ecological factors affecting air, land and water.

This definition indicates the broad scope of the analysis required in an EA. Each reasonable alternative which is considered by the proponent is examined in such scope.

29. The EA Review concluded that the proponent attempted to provide a comprehensive database which considered the aspects of environment described in clause 1(c) of the Environmental Assessment Act for all the reasonable alternatives, at each stage of the study and, therefore has met the requirements of the Act.

Conclusions of the Review (Ex. E-109) (pages 39 and 61)

30. The Review (Ex. E-109) evaluates the EA using the following two criteria:
 1. Are the components of an EA present?; and,
 2. Is the technical quality and level of detail of these components satisfactory and is there an appropriate range of alternatives?
31. On the basis of the evaluation of the submission contained in the Review (Ex. E-109), the EA Branch concluded that in selecting a proposed sanitary landfill site, the proponent had considered all the components of an EA, which the Branch interprets are required in subsection 5(3) of the Environmental Assessment Act.
32. The Government Review Team provided an evaluation of the technical quality and level of detail of the information provided in the EA, the appropriateness of the range of alternatives considered, and an

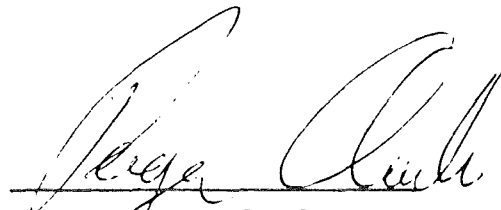
evaluation of the weight the proponent has given to the policy interests of their particular Ministry or agency during the course of planning.

33. Several reviewers indicated a concern with the level of detail and/or completeness of certain information in the EA, including the technical quality.
34. Based on the reviewers' comments regarding the technical quality and level of detail of the components of the EA, and the range of alternatives considered, the EA Branch concluded that the second criterion for meeting subsection 5(3) of the Environmental Assessment Act had not been met.

The Supplementary Government Review

35. As a result of the conclusions of the Review, the Regional Municipality of Halton submitted an Amendment and Additional Documentation to their Environmental Assessment in November 1986, in the form of "Halton Region's Response to the Ontario Government Review of Halton's Environmental Assessment - Solid Waste Management System for the Regional Municipality of Halton - Landfill Component" (Exhibit H-77).
36. The Government's Supplementary Review (Ex. E-110), of the Environmental Assessment (Amendment and Additional Documentation) was completed in April, 1987. The Supplementary Review (Ex. E-110) presented an evaluation of additional information and the amendment to the undertaking.

37. On the basis of the evaluation of the original Environmental Assessment submission and the additional information, the EA Branch concluded that in selecting the proposed sanitary landfill site, the proponent had considered all the components of an EA, which the Branch interprets are required by subsection 5(3) of the Environmental Assessment Act.
38. The Government Review Team provided an evaluation of the technical quality and completeness of the information in the EA, amendment and response document. In the initial Government Review (Ex. E-109) (February, 1986), nine agencies indicated concerns with the completeness and/or quality of the documentation of certain matters in the EA. The Supplementary Review (Ex. E-110) concluded that these concerns had been addressed by the Region of Halton. The Halton Region Conservation Authority and Ministry of Natural Resources expressed some concerns with the undertaking itself (page 25).
39. Based on an analysis of whether the components which the EA Branch interprets are required by subsection 5(3) were present and whether the technical quality and level of detail of these components was satisfactory, as addressed by the reviewers, the EA Branch concluded that subsection 5(3) of the Environmental Assessment Act had been met.



Roger Clarke

Appendix "A"

Curriculum Vitae

ROGER CLARKE

42 Springhead Gardens
Richmond Hill, Ontario
L4C 5B9
(416) 323-4319 (Bus.)

EDUCATION

University of Toronto, Department of Geography; 1967 to 1971
Degree: Bachelor of Arts (Specialist).

University of Toronto, Faculty of Education; 1972.
Degree: Bachelor of Education

York University, (Toronto); 1974 - 1978,
Department of Geography. Degree: Masters of Arts.

WORK EXPERIENCE

1982 -
Present - Ontario Ministry of the Environment

1987 Supervisor, Waste Unit (Environmental
Assessment Branch)

Administration of policies and projects under
the Environmental Assessment Act in regard to
waste management environmental assessments and
waste management master plans. Includes
environmental assessments for both the
municipal and private sectors.

1982 - 1987 - Environmental Planner (Environmental
Assessment Branch)

Administration of policies and procedures of
the Environmental Assessment Act. Carried out
the following project activities:

- ° Provide for the Branch review of waste
management projects and waste management
master plans including the City of Sault Ste.
Marie, the Regional Municipality of Peel, The
Regional Municipality of Halton, the Regional
Municipality of Waterloo, the North Simcoe
Waste Management Association, Eganville et
al., South Simcoe and Petro-Sun/SNC Inc.

- ° Provide liaison advice to municipalities on the status of municipal undertakings.
- ° Provide information on waste projects to the public, consultants and municipalities.
- ° Development of legislation amendments under the Environmental Assessment Act.
- ° Development of waste management guidelines for the Environmental Assessment Branch including public participation and general guidelines on waste undertakings.

1973 - 1982 - Ontario Ministry of the Environment, Muskoka
- Haliburton District Office, Municipal and
Private Abatement Section

Environmental Officer responsible for the administration and enforcement of the Environmental Protection Act, Ontario Water Resources Act, and Environmental Assessment Act within the District Municipality of Muskoka and Haliburton County.

- ° Included extensive liaison with the public and municipalities; investigations and reports on activities covered by the above Acts.
- ° Monitoring and regulation of requirements of acts and regulations including the monitoring and inspection of solid waste disposal sites and systems, municipal and private communal water supply and sewage systems, private sewage systems, complaints, marinas and boats.
- ° Land use functions included inspection and evaluation of subdivision proposals, severances, official plan amendments and zoning amendments.
- ° appearance before boards, and provincial court