



Ministry
of the
Environment

Ministère
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Environmental
Assessment
Advisory
Committee

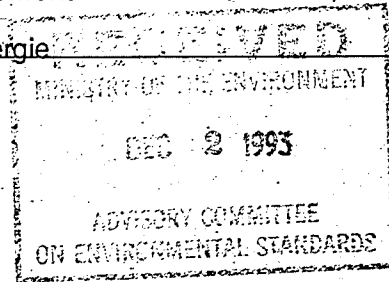
Comité
consultatif
des évaluations
environnementales

and Energy et de l'Énergie

Dr. Philip H. Byer, Chairman / Président

Christine S. Lucyk, Member / Membre

David R. Hahn, Member / Membre



65 St. Clair Ave. E
7th Floor
Toronto, Ontario
M4T 2Y3
(416) 323-2666

December 1, 1993

MEMORANDUM

TO: D.J. Beach, York-Durham District Office, MOEE

FROM: Philip Byer, Chair

RE: New Ajax/Pickering Water Supply Plant

cc. Linda Pim, Minister's Office
Sheila Willis, Assistant Deputy Minister, Regional Operations Division
David Crump, Regional Director, Central Region
Barbara Brownlee, Supervisor, EA Branch

Thank you for the opportunity to comment on the Ministry's draft response to Mr. Willard's letters of June 26 and July 6 in which he raised a number of concerns about the Ajax Water Supply Plant. From the Committee's perspective, there are a number of points relating to the intention of our recommendations that should be clarified. Also, we believe that given the concern about the tritium levels, it is important that the questions raised by Mr. Willard are addressed as directly as possible.

Before discussing the details of the draft letter, there are two matters that we believe need clarification at the outset. Because the terms and conditions set out by the Minister in her decision on the bump-up requests fall under the EA Act (not EPA), any change in these requires a decision by the Minister. It isn't sufficient for Durham or an MOEE Director to alter these conditions without approval from the Minister. If the Region of Durham wishes to change the conditions, it should be asked to document and explain why it cannot meet a condition and why a condition should be changed or dropped. Both the request and the decision by the Minister on a request for changes in terms and conditions should be communicated back to the Ajax/Pickering Water Plant Committee. Mr. Willard should be informed of this process as well.



Second, since Condition 21 stated that terms and conditions would be included in the C of A, it should be made explicit to the Region and the Water Plant Committee (and Mr. Willard) which ones will be included. For the remaining terms and conditions that cannot be included in the C of A, it should be made clear how they are being monitored and enforced.

The following sets out a number of specific points in the draft letter that we believe need clarification.

1. Proposed location of the Intake Pipe

On page 1, paragraph 4, there is a reference to the ESR recommendation that the intake pipe be located 8400 feet into the lake. On page 2, paragraph 2, it is stated that "the intake is proposed to be located between a sampling location offshore of Regional Road 23 location, approximately 5900 feet from shore, at a depth of 49 feet, and a sampling location offshore of the existing Ajax WSP, approximately 4900 feet from shore, at a depth of 51 feet". Since this is a change in location from the ESR proposal and since the location of the intake pipe has been one of the main concerns of the public, the Region of Durham should be required to give MOEE and the Water Plant Committee an explanation as to why this new location has been selected, if it hasn't already done so. Was it based on the results of the monitoring recently undertaken or was there some other reason for this decision?

2. ACES Review

Page 2, paragraph 2 refers to the ACES review and the expectation that its advice will be given to the Minister by December 1993. You should be aware that the ACES review has not yet begun. Once ACES receives a formal referral from the Minister, the minimum consultation period would be four months plus additional time for the Minister to review their recommendations and make a decision.

3. Condition 10 - "monitor tritium levels..., install real time lake current meters, and develop a model of tritium movementin order to determine the most suitable location for the intake as per condition 9; the monitoring program is to be developed in consultation with the Ontario Ministry of Environment and Energy, Environment Canada and Ontario Hydro.

The intention of this condition was to provide additional information upon which to base the decision on the most suitable location for the intake pipe. The requirements in this condition were to be met before the decision was made on locating the intake pipe. It appears from the draft letter, page 2 paragraphs 3 -7, that only one of these requirements, the monitoring of tritium, was undertaken. It is our opinion that the other two requirements were feasible and should be met. If for some reason they could not be completed, then the Region of Durham should seek a change in the condition from the Minister as mentioned above. Your draft letter should clearly state that the Region must meet all of these requirements of Condition 10 before finalizing the intake location or seek and receive a change in the condition from the Minister. Either way, there needs to be an adequate explanation provided.

In addition, while it appears that further monitoring of tritium was undertaken by the consultants on behalf of Durham, you have not answered Mr. Willard's question about whether this was done in consultation with MOEE, Environment Canada, and Ontario Hydro as set out in Condition 10. Again, if this was not done, then an explanation is needed.

4. Sequencing of Conditions and Water Conservation Strategy

While it is accurate to state, page 3, paragraph 6, that "the terms and conditions are not sequenced such that any particular condition was a prerequisite to another", it is at the same time misleading to imply that there was no sequencing intended in the substance of the conditions. As discussed above, the requirements set out in Condition 10 were clearly to be undertaken before a decision was taken on the intake pipe.

With reference to the water conservation strategy, the intent was to have a strategy in place in order to determine whether expansion to the 72 MIGD plant would be needed. The Committee stated in the report that "the conservation strategy would also determine the need for future expansion of the water treatment plant beyond the 36 MIGD". It was the intention of the terms and conditions that only a 36 MIGD plant should be approved at

this time, and that approval of any expansion must be justified after a water conservation strategy has been developed, approved and implemented as per Condition 1. Mr. Willard refers to a 72 MIGD facility. Page 3, paragraphs 6 & 7 of your draft letter do not indicate which size plant is being considered for approval. This needs to be clarified and furthermore, an explanation is needed as to how the conservation strategy relates to the planning of the facility and its ultimate size.

5. Terms and Conditions and Certificate of Approval

Condition 21 states that the Region "include into the application for a Certificate of Approval (C of A), all of the above noted terms and conditions which may be implemented through the C of A for the Pickering/Ajax Water Supply Plant". In your discussion of Mr. Willard's concerns about this condition, it is not clear which conditions will or will not be part of the C of A. This should be clarified. Furthermore, it is our opinion that as many conditions as possible should be included in the C of A. Contrary to your statement in the last paragraph on Page 3, Condition 11 should be part of the C of A since it relates to the ongoing operation of the plant as well as its design and construction.

Finally, in your covering memo, you commented that "I understand that the committee of EAAC set up for review of this undertaking no longer exists." We have not heard that the Water Plant Committee has been disbanded. Since the Committee is a requirement under the terms and conditions set out by the Minister, it should continue to exist and function. If it no longer exists, then the Region is no longer in compliance with the Minister's terms and conditions. You should confirm the existence of this Committee.

6. Communication About the Requirements

We continue to hear concerns about how the Region of Durham is proceeding to interpret and meet the requirements set out in the terms and conditions. It is in everyone's interest to ensure that the conditions are fully understood so as to preclude problems and delays later. We believe that MOEE should clarify for the Region of Durham and the Water Plant Committee the Ministry's view concerning the points raised above.

Please do not hesitate to speak with Pam Wheaton in our office if you have any questions about the above points.

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et de l'Énergie

7 Overlea Boulevard
4th floor
Toronto ON M4H 1A8

7, boulevard Overlea
4^e étage
Toronto ON M4H 1A8

To: Barbara Brownlee
Supervisor, Municipal Unit
Environmental Assessment Branch

From: D.J. Beach

Re: New Ajax/Pickering Water Supply Plant
Work Orders No. 39880 & 40033
Town of Ajax

As you are aware, during the Class EA process for the above project the Minister received numerous requests to bump up the proposal to a full EA. Due to these requests, the Minister requested the Environmental Assessment Advisory Committee (EAAC) to carry out a public review and to provide advise on whether the proposed undertaking should be bumped up.

The decision of the Minister was not to bump-up the project conditional that the Region adopted a council resolution specifying that the terms and conditions recommended by EAAC be met. The Regional Council passed a resolution accepting the terms and conditions recommended by EAAC.

On June 26 and July 6, 1993, this Ministry received letters from Mr. Bob Willard of Ajax concerning compliance with the terms and conditions imposed on the Regional Municipality of Durham (Region) for the construction of the above plant.

These letters requested information concerning the approach being taken to comply with the terms and conditions, which would best be answered by the EAAC committee that had been set up at the Minister's request. However, I understand that the committee of EAAC set up for review of this undertaking no longer exists.

The decision was made that this District would draft a response to the concerns raised by Mr. Willard, and would circulate the draft for comments by other Ministry Branches involved in this matter.

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Attached is the draft response that has been prepared on this matter, for comment by EA Branch . Please provide your comments to this office as soon as possible.

By copy of this memo I am also requesting that EAAC provide their comments on the response that has been prepared.

Should you, or any person reviewing this matter, wish to discuss the response, please call me at 467 3009 or Rod Adams at 424-3000.

original signed by

District Officer
York Durham District

attach.

cc. Dr. Philip Byer, Environmental Assessment Advisory Committee
Linda Pim, Minister's Office
Michelle McBride, Corporate Correspondence Unit
Sheila Willis, Assistant Deputy Minister, Regional Operations Division
David Crump, Regional Director, Central Region

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Ministère de
l'Environnement
et de l'Énergie

7 Overlea Boulevard
4th floor
Toronto ON M4H 1A8

7, boulevard Overlea
4^e étage
Toronto ON M4H 1A8

1993 11 26

DRAFT

W.O. # 39880 & 40033

Mr. Bob Willard
37 Pittman Crescent
Ajax, Ontario
L1S 3G4

Dear Mr. Willard:

The Honourable C.J. (Bud) Wildman has asked me to respond to your letters of June 26 and July 6, 1993 concerning the terms and conditions imposed on the Regional Municipality of Durham (Region) by the Minister of Environment and Energy, through the Environmental Assessment Advisory Committee (EAAC), for the submission of an application for the construction of the new Ajax/Pickering Water Supply Plant (WSP).

In your letter of June 26, 1993 you questioned the compliance with condition 9 of the terms and conditions, in particular, that condition 9 should have been met prior to the WSP Committee deciding on the water intake location for the new plant.

As you are aware, during the Class Environmental Assessment phase of the project the Region retained Simcoe Engineering Group Limited to study the water quality at various locations in Lake Ontario, in the vicinity of the various proposed plant locations.

The Environmental Study Report (ESR) for the proposed WSP recommended that the new plant be located adjacent to the existing water plant in the Town of Ajax, east of Harwood Avenue, and that the intake be located 8400 feet into the lake, at a depth of 60 feet. The decision for the location of the intake was based on a year long sampling program conducted by the consultant for inclusion in the ESR.

Several of the sampling points for this program were located in the vicinity of what has been proposed location of the intake for the new WSP, and although a specific point was not at the exact location of the proposed intake, the samples would provided a representation of the general water quality at the proposed intake location. The results of the sampling program indicated that the water quality in the vicinity of the proposed intake met or bettered the MOEE Drinking Water Objectives, even without the benefit of treatment and filtration.

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The intake is proposed to be located between a sampling location offshore of Regional Road 23 location, approximately 5,900 feet from shore, at a depth of 49 feet, and a sampling location offshore of the existing Ajax WSP, approximately 4,900 feet from shore, at a depth of 51 feet. The average tritium result for the Regional Road 23 location was 14.6 Becquerels/Litre (Bq/L), with a range of 8.6 to 43.9 Bq/L, and the average at the location offshore of the existing WSP was 14.2 Bq/L, with a range of 10.4 to 27.4 Bq/L.

The current objective for tritium of 40,000 (Bq/L). As you are aware, the Minister has requested the Advisory Committee on Environmental Standards (ACES) to carry out a public review with respect to the health risk of radionuclides, and advise the Minister by the end of 1993, on an appropriate standard for tritium in drinking water.

As well, the Region conducted an additional sampling program for tritium this past August, September and October. Samples were obtained, twice per month, at the surface and at depth, at the location of the existing plant intake, the location for the proposed intake and at the, if necessary, extension to the proposed intake. The results of the sampling program did not indicate an exceedence of MOEE Drinking Water Objectives for tritium. The average concentration of tritium at the location (60' depth) of the proposed intake was 7.3 Bq/L.

The Region has indicated that the installation of a real time lake current meter has been discussed with Ontario Hydro and that additional discussions are to take place with both Ontario Hydro and the Ministry.

Recent discussions with the Region indicate that a model to track tritium movement should be available for review in the near future. This model is a two dimensional model (surface water movement) and is based on tracking a tritium discharge via the thermal plume associated with a discharge from the Pickering Nuclear Generating Station (PNGS). This model is similar to dispersion of an "oil spill" scenario.

The Region has indicated that they have received subsequent correspondence from Ontario Hydro that an aquatic dispersion model has been developed and a verification study on the model is being performed.

The purpose of the model would be for Ontario Hydro to forecast the location of a plume of pollutants, including tritium, to enable samples to be taken for analysis. The model will assist in assessing the possible impact on a water supply intakes.

As well, the Emergency Planning Office of the Ministry of the Solicitor General and Correctional Services, has developed "Procedures for Responding to Radioactive Emissions from Nuclear Facilities". A copy of this report was provided to the Committee on October 27, 1993.

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Condition 21 requires that the application for a Certificate of Approval include all of the terms and conditions which may be implemented through the Certificate of Approval. When the application is submitted, the Ministry's Approvals Branch will review the application based on the information provided. The decision to grant a certificate will be made on the information provided, as required by the terms and conditions.

In your letter of July 6, 1993, you requested clarification of the approval process.

Your first question concerned, "When is the Certificate of Approval granted?".

As previously stated, condition 21 requires that all of the terms and conditions that may be implemented through a certificate be included with the application. As well, Section 52(1) of the Ontario Water Resources Act, R.S.O. 1990, states that "No person shall establish, alter, alter, extend or replace new or existing water works except under in accordance with an approval granted by a Director". Therefore, the Region will be required to first obtain a Certificate of Approval from this Ministry before any construction for the WSP begins.

You next questioned the sequencing of the conditions by the Ajax/Pickering Water Plant Committee (Committee).

The terms and conditions are not sequenced such that any particular condition was a pre-requisite to another. Again, condition 21 stipulates the requirements on the Region for meeting these terms and conditions for submission of an application for a certificate.

In July 1992 the Region adopted a water conservation strategy. The strategy was presented to Regional Council in September 1992 as partial compliance of condition 1. The public consultation requirement of the condition remains to be met. The Region is currently reviewing the most efficient method of receiving input from the public.

Question no. 3 concerned the Region having to satisfy all of the terms and conditions before a certificate is granted.

As stated, condition 21 directs the Region to include information that would be implemented in the certificate for the WSP. Not all of the terms and conditions imposed on the Region would be needed to be included in the application. A Certificate of Approval granted for the construction and operation of a water supply plant would deal with those activities through conditions of the certificate. Terms and conditions, such as no.'s 1, 7, 8 and 11, would be considered in designing the plant, but would not necessarily be included as a condition on the certificate, but rather as supporting information in the application. The meeting of these conditions are required by the adoption of Regional Council of the Minister's terms and conditions prepared by EAAC.

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Your last question concerned what would happen if the Region did not or could not meet all of the necessary conditions for submission of an application for a certificate.

The Region would submit the application and necessary supporting information to the Ministry's Approvals Branch. The application and supporting information would be circulated to various other Ministry Branches for review and comment. The Ministry's _____ Branch would conduct the review ensuring compliance with the terms and conditions.

Should the Region not be able to comply with certain conditions, they would be required to supply the reasons for non-compliance. If the reason is that the technology is not currently available, such as an in-line tritium monitor capable of measuring at the low levels currently being measured at the existing plant, a condition would be contained in the certificate requiring updating the Ministry on the status of the technology and that the equipment be installed when available.

Thank you for writing to the Minister with your concerns.

Yours truly,

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Dave Crump
Regional Director