



**EB-2007-0034**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*,  
S.O.1998, c.15, (Schedule B);

**AND IN THE MATTER OF** an Application by Canadian  
Renewable Energy Corporation, for an Order or Orders  
granting Leave to construct Transmission Facilities.

**BEFORE:** Cynthia Chaplin  
Presiding Member

Pamela Nowina  
Member and Vice Chair

Bill Rupert  
Member

**DECISION AND ORDER**

October 12, 2007

## APPLICATION AND PROCEEDING

Canadian Renewable Energy Corporation (the “Applicant” or “CREC”) filed an application with the Ontario Energy Board (the “Board”) dated February 2, 2007 (the “original application”) under section 92 of the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B (the “Act”). The Applicant applied for an order of the Board for leave to construct approximately 12.1 kilometres of single circuit 230 Kilovolt (“kV”) electricity transmission line, underground and submarine, and associated facilities. The transmission line would extend from a new transformer station (“TS”) located on Wolfe Island (“Wolfe Island TS”) to a new customer service station (“CSS”), adjacent to the Gardiner TS that is owned and operated by Hydro One Networks Inc. (“Hydro One”). At the CSS, the proposed transmission line would connect with existing HONI 230 kV transmission lines X2H or X4H on the connections to Gardiner TS.

The Board assigned File No. EB-2007-0034 to the original application and issued a Notice of Application dated February 22, 2007 (the “Notice”). CREC served and published the Notice as directed by the Board. In the Notice the Board indicated that it would hold either a written or an oral hearing, and asked that each party to the application indicate its preference.

There were five intervenors: Hydro One, Invista (Canada) Limited (“Invista”), the Independent Electricity System Operator (“IESO”), R. Paul Martin Construction Co. (“Martin Construction”), and a joint intervention by Utilities Kingston and the City of Kingston (“Kingston”).

Martin Construction and Invista requested that they be granted costs for involvement in the proceeding, and the Board granted eligibility for costs to these parties only. The Board issued Procedural Order No. 1 on March 27, 2007, setting out a schedule for the submission of and response to interrogatories. Interrogatories were filed by Board staff and responses were received by the specified date.

On May 29, 2007 the Applicant submitted an amended Application (the “Application”) which included two changes of significance: (1) portions of the proposed route were changed, including changes to the submarine route, the point at which the transmission line comes ashore, and the initial portion of the underground route; and, (2) the proposed connection of the transmission line to the Ontario grid was changed so as to occur within the Gardiner TS. As a consequence of this proposed connection to the grid,

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no customer switching station would be required. A Notice of Amended Application (the "Amended Notice") was issued on June 8, 2007, and CREC served and published the Amended Notice as directed by the Board. The same file number was retained.

Procedural Order No. 2, issued on July 4, 2007, set out a schedule for the submission of and response to interrogatories, and the filing of evidence by parties other than the Applicant. Interrogatories were submitted and responses were received. No intervenor submitted written evidence.

At a hearing in Kingston on September 24, 2007, the Applicant put forward oral evidence through a three-member witness panel and made submissions. Martin Construction called evidence and made submissions. Kingston made submissions on certain proposed conditions of approval only. Invista was represented at the hearing by counsel but did not call any evidence or make any submissions.

After consideration of the oral and pre-filed evidence, and after hearing the oral submissions of the Applicant, and certain of the Intervenors, and for the reasons set out below, the Board finds the proposed transmission line to be in the public interest and grants the Application, subject to the Conditions of Approval attached to this Decision.

## **THE PUBLIC INTEREST TEST**

This application has been made under s. 92(1) of the Act for an order of the Board for leave to construct an electricity transmission line and associated facilities. Section 96 of the Act sets out the criteria to be used by the Board when deciding to grant leave to construct:

### **Order allowing work to be carried out**

96. (1) If, after considering an application under section 90, 91 or 92 the Board is of the opinion that the construction, expansion or reinforcement of the proposed work is in the public interest, it shall make an order granting leave to carry out the work.

(2) In an application under section 92, the Board shall only consider the interests of consumers with respect to prices and the reliability and quality of electricity service when, under subsection (1), it considers whether the construction, expansion or reinforcement of the electricity transmission line or

electricity distribution line, or the making of the interconnection, is in the public interest.

The Board notes that in this Application the proposed project will be funded by the Applicant and that there will be no impact on the price that transmission ratepayers pay. Therefore, the Board need only consider the reliability and quality of electricity service when considering whether the transmission line is in the public interest.

## **EVIDENCE AND BOARD FINDINGS**

### **Project Need**

CREC was a successful proponent in the Ontario Government's June 17, 2005 "Request for Proposal for 1000 MW of Renewable Energy" and has entered into a 20-year supply contract with the Ontario Power Authority to construct and operate a 198 MW wind farm on Wolfe Island. The transmission line would be used to connect the Wolfe Island generation facilities to Hydro One's transmission system.

The Board is satisfied that the need for the transmission line and related facilities is established.

### **System Impact Assessment and Customer Impact Assessment**

An IESO System Impact Assessment ("SIA") for this project, dated August 12, 2007, concluded that the proposed project will have no negative effect on the reliability of the grid. The SIA included a number of detailed recommendations and technical requirements. The Applicant committed to meeting all requirements and recommendations contained in the SIA.

A completed Customer Impact Assessment ("CIA"), dated March 22, 2007, was completed by Hydro One. The CIA concluded that there is adequate post contingency voltage support, and there is minimal impact on present short-circuit levels for Kingston area customers. There are no outstanding matters related to the CIA, and the Applicant has committed to remain compliant with the needs of the CIA should they change.

The Board accepts the evidence of the SIA and CIA reports which conclude that the proposed project will not have a negative impact on the reliability of the grid or service

to other customers. The Board acknowledges CREC's commitment to meet the requirements and recommendations of the SIA and CIA, and this is reflected in the Conditions of Approval.

### **Section 96(2) Public Interest, Reliability and Quality of Electricity Service**

Martin Construction is a local company which buys and develops land. It is the owner of land north of Bath Road in Kingston (the "Martin lands") over which the Applicant seeks a temporary and permanent easement. Currently a residential apartment building is being built on the Martin lands, and construction of other residential apartment buildings is planned. Martin Construction was represented at the hearing by Mr. Paul Martin, the Operations Manager, and counsel, Ms. Susan Elliott.

Martin Construction objects to that part of the proposed route which traverses the Martin lands. Mr. Martin expressed concern that an easement over the Martin lands would restrict or impact the development which Martin Construction is undertaking or may undertake in the area. In his cross examination of the witness panel, Mr Martin proposed an alternative route for the northern portion of the transmission line which would have the line proceed west on Bath Road to Gardiners Road, north on Gardiners Road to the far side of the CN underpass and then eastward to the Hydro One Gardiner TS ("proposed alternative route"). This route would avoid crossing the Martin lands and those of other landowners in the area. In proposing this route, Mr. Martin made reference to one of the five industrial maps filed at tab 12(b) of the pre-filed evidence ("map 505"), which showed a pre-existing transmission line parallel to Gardiners Road.

The Applicant gave evidence that the proposed alternative route was not viable as that portion of the roadway already accommodated a significant number of other utilities' above-ground facilities. The proposed route was chosen because it would have the least impact on the public and existing infrastructure. The Applicant also gave evidence that map 505 was inaccurate as the line labelled "transmission line" was actually a distribution line. The labelling inaccuracy appeared on the all of the maps filed at tab 12(b) and an undertaking was given by the Applicant to file corrected maps.<sup>1</sup> The Applicant confirmed that there was no existing underground transmission or distribution line which could be followed, and gave evidence that running the transmission line

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<sup>1</sup> The corrected maps were filed by the Applicant on September 26, 2007. Filed the same day was an updated Seabed Study by Canadian Seabed Research Ltd.

above ground along the route proposed by Martin Construction would raise safety and reliability issues.

Mr. Martin reviewed several other alternatives with the Applicant in cross examination. Mr. Martin asked the Applicant to consider whether the transmission line could be operated at a lower voltage and the power fed into the existing distribution line corridor on Gardiners Road. The Applicant replied that transmitting the proposed amount of power from Wolfe Island would require multiple cables to accommodate the higher current needed at the lower voltages. This in turn would significantly increase the induction effects detailed in the AMEC Induced Voltage Study, which the Applicant filed as part of its pre-filed evidence.

Mr. Martin also asked the Applicant to consider whether the power from Wolfe Island could be routed south from Wolfe Island to New York, and then fed back to Ontario through existing interconnections. The Applicant gave evidence that its contract with the Ontario Power Authority requires it to supply power to the Ontario power grid.

Mr. Martin also raised safety issues arising from the location of the route. In his evidence in chief, Mr. Martin gave evidence that the Martin lands are in an area designated by the City of Kingston as the Central Loop, which will be a mixture of high-density multi-family dwelling units, commercial stores and service sector providers. It was Mr. Martin's position that the safety of the area residents must be a priority when determining the route.

In cross examination Mr. Martin questioned the Applicant concerning the monitoring of the transmission line. The Applicant gave evidence that automatic protection systems monitor the integrity of the cable and, in the event of a cable fault, would disconnect and de-energize the cable, rendering it harmless. The Applicant advised that a landowner would be advised if the actual fault occurred on their land; however they may not be made aware of faults occurring off their land.

Kingston expressed concerns about safety, associated with the possible effects a high voltage transmission line might have on public facilities located in close proximity to the line. To respond to these concerns, the Applicant commissioned a pipeline induced voltage study from AMEC Americas Ltd. ("AMEC"). The final AMEC study, dated September 17, 2007, formed part of the pre-filed evidence, and a representative from

AMEC, Byron Nicholson, a Professional Engineer, was a member of the Applicant's witness panel.

Prior to the hearing, in a letter sent to the Board and dated September 21, 2007, Kingston advised that their safety concerns had been resolved by the AMEC study.

No other Intervenor made submissions on the proposed route.

The Board appreciates the concerns raised by Mr. Martin and the clarity with which they were expressed. The Board notes that Mr. Martin does not oppose the Wolfe Island wind farm but believes an alternative route for the transmission line should be used.

The pre-filed evidence reveals the Applicant considered and rejected various routes before settling on the proposed route. The evidence establishes that the proposed route is the most direct and least disruptive route. The alternative routes proposed by Mr. Martin raised reliability issues and, in the case of his proposal to connect the wind farm to the New York grid, would violate CREC's contractual obligations.

As noted previously, the Act directs the Board to consider only the reliability and quality of electricity service when considering whether it is in the public interest to grant an order permitting the construction of the transmission line,<sup>2</sup> The Board finds that the proposed route is the best alternative from reliability and quality of electricity service perspective.

### **Landowner Agreements**

Section 97 of the Act requires that leave to construct under section 92 shall not be granted until the applicant satisfies the Board that it has offered or will offer to each owner of land affected by the approved route or location an agreement in a form approved by the Board.

In the pre-filed evidence, the Applicant provided a form of two agreements: Agreement to Grant Easement and Right-of-Way Agreement, which is essentially an option agreement, and Easement in Gross (collectively the "Easement Agreement"). The Applicant gave evidence that the Easement Agreement had been and would be offered

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<sup>2</sup> Price is not a consideration as the Applicant alone is funding the project.

to each landowner affected by the proposed route. In response to requests by Martin Construction and the Panel, CREC agreed to modify the Easement Agreement to better reflect the circumstances of this Application, and specifically, that the transmission line will be underground and that the easement does not permit the expansion or enlargement of the capacity of the line (the "Amended Easement Agreement"). The Amended Easement Agreement was submitted on September 26, 2007.

The Board approves the form of the Amended Easement Agreement.

### **Environmental Assessments**

The Applicant anticipates filing the Notice of Completion of the Environmental Assessment Report by early October 2007, which will start the 30-day formal stakeholder review/public comment period. While the Board's mandate does not include a review of environmental aspects of the project, fulfillment of the requirements of the *Environmental Assessment Act* will be a Condition of Approval of this project. The Board notes that construction of the transmission line and related facilities cannot begin until environmental approvals are obtained.

The Applicant also provided evidence of its consultations with Aboriginal Peoples, including a letter of support from the Mohawks of the Bay of Quinte, and advised that no Aboriginal Peoples had expressed an objection to the project. The Board accepts the Applicant has conducted its consultation with Aboriginal Peoples appropriately.

### **Project Costs and Ratepayer Impact**

It is the Applicant's evidence that the proposed project, including required changes within the Gardiner TS, will be paid for by the Applicant. The Board accepts that the project will therefore have no impact on transmission rates in Ontario.

### **Conditions of Approval**

Draft Conditions of Approval were circulated by the Board for review and comment prior to the oral hearing. The Applicant and IESO suggested minor changes in letters sent to the Board, all of which are accepted.



By letter dated September 21, 2007, the Applicant put forward four additional Conditions of Approval that had been agreed with Kingston. The second, third and fourth proposed conditions related to the sharing of information by the Applicant. However, the first proposed condition was the following:

*That CREC shall satisfy the reasonable requirements of the City of Kingston and Utilities Kingston as to acceptable design and construction activity adjacent to existing roads and infrastructure. The design and construction standards proposed by CREC for this project will be in accordance with normally acceptable engineering and construction practices. In the event of a dispute, CREC may apply to the Board for an order varying this condition.*

The Applicant argued that it required the protection offered by the proposed condition, in particular the provision outlining its recourse to the Board, should the City of Kingston or Utilities Kingston impose arbitrary or unreasonable requirements upon CREC which could frustrate or prolong the construction of the project.

The Board is not persuaded that such a condition is necessary. First, if Kingston behaves unreasonably and refuses to allow the Applicant to proceed with construction upon, under or over a highway, utility line or ditch owned by Kingston, the Applicant may apply to the Board for an order under section 101 of the Act permitting it to do so. Second, as noted by counsel for the Applicant, a municipality may not use its legislative powers to frustrate or countermand orders of the Board which deal with matters exclusively within the jurisdiction of the Board.<sup>3</sup>

The Board expects that the Applicant and Kingston will be able to work together and come to an agreement with regard to matters related to the construction of the transmission line.

CREC and Kingston also agreed on three other information sharing conditions, which the Board will adopt:

- CREC shall submit to Utilities Kingston/City of Kingston detailed engineering and construction specifications for all construction within the limits of the City of Kingston and, without limiting the foregoing, shall include horizontal crossing details, supporting details when undermining infrastructure, and back fill material.

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<sup>3</sup> Union Gas Ltd. V. Township of Dawn 1977 15 O. R. (2<sup>nd</sup>) 722 (Div. Ct.)

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- CREC shall provide to the City of Kingston and Utilities Kingston stamped engineering as built drawings within 30 days of the installation and trench restoration of the 230 kV transmission line from Lake Ontario to the HONI1 Gardiner TS.
- CREC shall provide a minimum of five (5) business days advance notice to the Manager of Technical Services, Utilities Kingston, and the Infrastructure Engineer, Engineering Department, City of Kingston, of the following milestones:
  - The start of construction activity with the City of Kingston, and
  - The start of any construction activity that involves the crossing of Front Road and Bath Road as this work will require notification of the public of the potential impact to traffic.

Mr. Martin asked that the conditions agreed to by the Applicant and Kingston be expanded to include Martin Construction. Further, he submitted that the Applicant should be required to notify Martin Construction should there be a fault on the line north of Bath Road where Martin Construction's residential development is located.

After considering the other three agreed conditions, and Mr. Martin's request, the Board has decided to include additional information sharing conditions applicable to all owners of property that will be crossed by the transmission line and that the Conditions of Approval shall be provided to all owners of property that will be crossed by the transmission line. Specifically:

- CREC shall provide a minimum of five (5) working days notice to a landowner in advance of actual construction on the landowner's property unless otherwise negotiated with the landowner.
- CREC shall advise a landowner of any fault which occurs in the transmission line on the landowner's property, as soon as practical following identification of the location of the fault.
- Upon request of a landowner, CREC shall provide stamped engineering as built drawings for the portion of the transmission line on the landowner's property.

Mr. Martin gave evidence that he is required by the City to pave part of the roadway which will be affected by the proposed route. Should the roadway be paved before the Applicant starts construction of the transmission line, Mr. Martin sought the inclusion of a condition which would require the Applicant to bore under the newly-paved roadway. CREC did not agree with such a condition and gave evidence that there would be

greater cost for boring, and that it would likely require additional easement to site the boring machinery on two adjacent properties.

The Board will not require CREC to bore under the access road for the Martin lands. The access road in question is not a major thoroughfare where it would be highly inconvenient to the public to carry out open trench construction. And whereas boring under Mr. Martin's property might reduce inconvenience to him as a landowner, the requirements for additional easements on either side may well increase the inconvenience to the adjacent landowners. The Board encourages CREC and Mr. Martin to coordinate, if possible, the timing of the construction of the transmission line and the paving of Mr. Martin's access road. In the event that the access road is paved in advance of the transmission line being installed, the Board will not require CREC to bore under the access road. CREC's standard easement agreement requires it to restore land to its former state so far as is practical as soon as is reasonably practicable after construction of the transmission line. The Board concludes this should be sufficient protection for Mr. Martin.

## **CONCLUSION**

Having considered all of the evidence related to the Application, the Board finds the proposed project to be in the public interest.

The Board appreciates the Applicant's and the Intervenors' co-operative and respectful conduct throughout the proceeding. The Board believes that this has resulted in the reasonable accommodation of the concerns of the Intervenors, the Applicant and other interested parties.

## **THE BOARD ORDERS THAT:**

1. Pursuant to section 92 of *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B, Canadian Renewable Energy Company is granted leave to construct electricity transmission facilities on Wolfe Island, under Lake Ontario, and in the City of Kingston in accordance with the contents of this decision and order, and subject to the Conditions of Approval attached as Appendix A to this Order.

2. Parties that were found eligible for an award of costs in this proceeding shall submit their cost claims by **November 9, 2007**. A copy of the cost claim must be filed with the Board Secretary and one copy is to be served on CREC. The cost claims must be done in accordance with section 10 of the Board's *Practice Direction on Cost Awards*.
3. CREC shall have until **November 23, 2007** to object to any aspect of the costs claimed. A copy of the objection must be filed with the Board Secretary and one copy must be served on the party against whose claim the objection is being made.
4. The party whose cost claim was objected to will have until **November 30, 2007** to make a reply submission as to why its cost claim should be allowed. Again, a copy of the submission must be filed with the Board Secretary and one copy is to be served on CREC.
5. CREC shall pay the Board's costs of the proceeding immediately upon receipt of the Board's invoice.

**ISSUED** at Toronto on October 12, 2007

**ONTARIO ENERGY BOARD**

*Original Signed By*

Kirsten Walli  
Board Secretary

**APPENDIX A**

**TO DECISION AND ORDER**

**BOARD FILE NO. EB-2007-0034**

**DATED October 12, 2007**

**Conditions of Approval for  
Canadian Renewable Energy Corporation  
Transmission Line and associated transmission facilities (the “Project”)  
EB-2007-0006**

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**1 General Requirements**

1.1 Canadian Renewable Energy Corporation (“CREC”) shall construct the Project and restore the Project land in accordance with its Leave to Construct application, evidence and undertakings, except as modified by this Order and these Conditions of Approval.

1.2 Unless otherwise ordered by the Board, authorization for Leave to Construct shall terminate August 15, 2008, unless construction of the Project has commenced prior to that date.

1.3 CREC shall implement all the recommendations of the Environmental Screening Reports filed in the pre-filed evidence, and such further and other conditions which may be imposed by environmental authorities.

1.4 CREC shall satisfy the Independent Electricity System Operator (“IESO”) requirements and recommendations as reflected in the System Impact Assessment document dated August 12, 2007, and such further and other conditions which may be imposed by the IESO.

1.5 CREC shall satisfy the Hydro One Networks Inc. (“HONI”) requirements as reflected in the Customer Impact Assessment document dated March 22, 2007, and such further and other conditions which may be imposed by HONI.

1.6 CREC shall advise the Board's designated representative of any proposed material change in the Project, including but not limited to material changes in the proposed route, construction techniques, construction schedule, restoration procedures, or any other material impacts of construction. CREC shall not make a material change without prior approval of the Board or its designated representative. In the event of an emergency the Board shall be informed immediately after the fact.

1.7 CREC shall obtain all necessary approvals, permits, licences, certificates and easement rights required to construct, operate and maintain the Project, and shall provide copies of all such written approvals, permits, licences and certificates upon the Board's request.

1.8 CREC shall provide a copy of the Board's Decision and Order, including these Conditions of Approval, to all owners of property that will be affected by construction of the transmission line and related facilities.

## **2 Project and Communications Requirements**

2.1 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Facilities.

2.2 CREC shall designate a person as Project engineer and shall provide the name of the individual to the Board's designated representative. The Project engineer will be responsible for the fulfillment of the Conditions of Approval on the construction site. CREC shall provide a copy of the Order and Conditions of Approval to the Project engineer, within ten (10) days of the Board's Order being issued.

2.3 CREC shall develop, as soon as possible and prior to the start of construction, a detailed construction plan. The detailed construction plan shall cover all material construction activities. CREC shall submit five (5) copies of the construction plan to the Board's designated representative at least ten (10) days prior to the commencement of construction. CREC shall give the Board's designated representative ten (10) days written notice in advance of the commencement of construction.

2.4 CREC shall furnish the Board's designated representative with all reasonable assistance needed to ascertain whether the work is being or has been performed in accordance with the Board's Order.

2.5 CREC shall, in conjunction with HONI and the IESO, develop an outage plan which shall detail how proposed outages will be managed. CREC shall provide five (5) copies of the outage plan to the Board's designated representative at least ten (10) days prior to the first outage. CREC shall give the Board's designated representative ten (10) days written notice in advance of the commencement of outages.

2.6 CREC shall furnish the Board's designated representative with five (5) copies of written confirmation of the completion of Project construction. This written confirmation shall be provided within one month of the completion of construction.

2.7 CREC shall submit to Utilities Kingston/City of Kingston detailed engineering and construction specifications for all construction within the limits of the City of Kingston and, without limiting the forgoing, shall include horizontal crossing details, supporting details when undermining infrastructure, and back fill material.

2.8 CREC shall provide to the City of Kingston and Utilities Kingston stamped engineering as built drawings within 30 days of the installation and trench restoration of the 230 kV transmission line from Lake Ontario to the HONI Gardiner TS.

2.9 CREC shall provide a minimum of five (5) business days advance notice to the Manager of Technical Services, Utilities Kingston, and the Infrastructure Engineer, Engineering Department, City of Kingston, of the following milestones:

- i) The start of construction activity with the City of Kingston, and
- ii) The start of any construction activity that involves the crossing of Front Road and Bath Road as this work will require notification of the public of the potential impact to traffic.

2.10 CREC shall provide a minimum of five (5) working days notice to a landowner in advance of actual construction on the landowner's property unless otherwise negotiated with the landowner.

2.11 CREC shall advise a landowner of any fault which occurs in the transmission line on the landowner's property, as soon as practical following identification of the location of the fault.

2.12 Upon request of a landowner, CREC shall provide stamped engineering as built drawings for the portion of the transmission line on the landowner's property.

### **3 Monitoring and Reporting Requirements**

3.1 Both during and for a period of twelve (12) months after the completion of construction of the Project, CREC shall monitor the impacts of construction, and shall file five (5) copies of a monitoring report with the Board within three (3) months of the completion of monitoring of construction of the Project i.e. within fifteen (15) months of completion of construction of the Project. CREC shall attach to the monitoring report a log of all comments and complaints related to construction of the Project that have been received. The log shall record the person making the comment or complaint, the time the comment or complaint was received, the substance of each comment or complaint, the actions taken in response to each if any, and the reasons underlying such actions.

3.2 The monitoring report shall confirm CREC's adherence to Condition 1.1 and shall include a description of the impacts noted during construction of the Project and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction of the Project. This report shall describe any outstanding concerns identified during construction of the Project and the condition of the rehabilitated Project land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

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