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October 25, 2017

The Environmental Commissioner of Ontario
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Telephone: 416 325-3377
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Sent by Registered mail and by e-mail

Hello Environmental Commissioner,

Re: Request for Review of ECA Instrument 0521-9XKKZ3
for the proposed hydro-electric generating station at the Bala falls

Summary

For several weeks, the proponent for the proposed hydro-electric generating station at the Bala falls has had more than ten workers working overtime, and using heavy equipment for pre-construction activities without regard for several serious environmental issues described below. To prevent contamination of the Moon River by several hazardous materials we request an immediate Review of the situation.

proposed construction site should be treated as a Brownfield site as it is an abandoned waterfront industrial facility demolished when there were no environmental regulations:

1) The Bala #2 generating station was an industrial facility built on the site in 1924 and demolished in 1972. Having constantly-operating machinery, during this time it would certainly have accumulated more than 45 years of oil and grease on the floor, and this would certainly have been left buried.

2) When the facility was demolished in 1972, PCBs were still legal and were widely used in electrical equipment such as the transformer the Bala #2 generating station would have needed.

3) There were few environmental rules at that time, and the demolition was done by a small local contractor who would not have had any environmental training.

4) As noted in the November 2013 Phase II ESA, being an abandoned generating station, the presence of PCBs is a concern, as well as oils and greases. But as the slope of the ground was too steep above this area, this ESA did not attempt to locate or test for these hazardous substances.

The November 2013 Phase II ESA was deficient in not addressing the abandoned hazardous materials from this industrial facility. These hazardous materials would be within a few feet of the Moon River, yet the ECA has no requirements to test for them. Even more troubling is that the ECA allows water from this proposed excavation to be pumped directly into the Moon River based solely on the turbidity. The MOECC should therefore issue a stop work order to properly test and carefully excavate the site to properly locate and remove the hazardous materials.

The proponent has six large overseas shipping containers on-site, expecting to use these as settling tanks. These shipping containers are labelled with the insecticides that have been impregnated into the wood flooring. Using these shipping containers as settling tanks

would result in these insecticides being washed into the Moon River, which is unacceptable, as the insecticides are known to be harmful to fish.

Detail

While some aspects of the proposed construction of a hydro-electric generating station at the Bala falls received final environmental approval on January 23, 2013, on May 30, 2016 the MOECC posted a Proposal Notice for an *Environmental Compliance Approval* (ECA), with a 45-day comment period, on the Environmental Registry for some of the construction aspects.

Before the 45-day comment period expired, the MOECC updated this posted Proposal Notice that: *"Upon further review, it has been discovered that the instrument was posted in error. The instrument under consideration by the ministry was subject to requirements under the Environmental Assessment Act (EAA) and is therefore exempted from posting on the registry"*.

The MOECC later claimed this exemption was due to Section 30 of the *Environmental Bill of Rights* (EBR).

On October 20, 2017 the EBR posting was updated to state than an ECA has been issued, as Instrument 0521-9XKKZ3.

Section 30 of the EBR allows an exemption from a proposal being posted on the Environmental Registry if: "*the environmentally-significant aspects of a proposal"* have already been: *"considered in a process of public participation"*. As detailed below, environmentally-significant aspects of this proposal have not been disclosed to the public; through the environmental assessment process, through the EBR posting, by the proponent, or through any other means.

I therefore request a Review as is provided by the EBR.

Also, as environmentally-significant issues have not been addressed, I request:

1) That as the proponent's shipping containers are not approved equivalents for the settling tanks required, the proponent be informed these shipping containers are not to be used as settling tanks.

   Further, as these shipping containers have been treated with an insecticide known to be harmful to fish, that the proponent be ordered to immediately remove these shipping containers from this environmentally-sensitive site.

2) An independent Qualified Person be placed in charge of determining whether hazardous materials were left buried when the Bala #2 generating station was demolished at this site. Such abandoned industrial facilities would be expected to have electrical transformers containing PCBs and lubricants accumulated after decades of operation. This is of greater concern as these materials would be buried within metres of the Moon River

3) That the proponent be immediately ordered to cease driving heavy construction equipment over the site of the previous Bala #2 generating station, until this has been carefully excavated to determine whether there are hazardous materials buried there.

4) That the ECA be amended to never allow water to be pumped from the proposed construction site directly to the Moon River. Instead, all water pumped from the proposed excavation be stored in settling tanks and tested for Zinc, hydrocarbons, and PCBs before it can be pumped into the Moon River.

5) That the proponent be required to document the environmentally-significant changes they have made to their plans since their January 2013 final environmental approval.

   This would include:

   a) The proper testing and treatment of water which would need to be pumped from the proposed construction site.

   b) The site investigation required to locate and properly remove buried hazardous materials and properly handle and remediate the excavated soil.

   c) Safety plans to warn and protect the public recreating in the Moon River, during operation of the proposed project.

   The above to be included in an Addendum to their Environmental Screening/Review report, so that these environmentally-significant changes are disclosed to the public, and the public has opportunity to provide comment, as is required by the Environmental Bill of Rights.

Following are the additional pages for Question #3 and Question #4 of the Application for Review.

Thank you, I look forward to the opportunity to provide additional background information and answer any questions.

Sincerely,

Mitchell Shnier

Cc: Ombudsman Ontario, info@ombudsman.on.ca

Additional Pages for Question #3

We believe that the ministry should undertake our Review to protect the environment because the proponent made environmentally-significant changes to the plans presented for their environmental assessment, and new information has become available. Therefore, the Section 30 exemption from the EBR should not apply, as detailed below:

1) The ECA states that the settling tanks are to be: *"Aquatech Models or approved equivalent"*.

   The proponent has installed six 40'-long open-top overseas shipping containers at the north end of the Precambrian Shield parking lot, and is making modifications to use these as settling tanks. However, these would not be "equivalent". For example:

   a) These shipping containers will leak:
      - The large doors (similar to those used at the back of transport trucks) have only a deteriorating gasket seal intended to keep out water splashes, not to be water-tight.
      - The section of 12"-diameter pipe installed to pass water from one tank to the next is sealed only with caulking.

      The rusty surface at the gasket and caulking is uneven and will therefore result in leaks. Also, being more than ten years old, the many other welded seams of these shipping containers would likely also have leaks. There is no indication of any testing or preparation to make these shipping containers water-tight.

      The concerns are:
      - There is no containment around these shipping containers to retain leaked materials.
      - As the shipping containers are arranged in a 2x3 grid with no space between them, it is not be possible to:
        - Inspect the surfaces and doors between shipping containers for leaks.
        - Observe leaks onto the ground between and below the shipping containers.
      - The shipping containers are installed adjacent to a water body, and the ground slopes to a drainage ditch that directly leads to this water body. Therefore, the untreated water leaking from these shipping containers would contaminate both the ground below, and the Moon River adjacent.

   b) The metal data plate on the shipping containers specifies that the manufacturer treated the thick wood floors with Radaleum FHP-60 and Tailileum 300, as is required by receiving countries attempting to prevent the spread of foreign insects and everything else undesirable that might get into these shipping containers from source countries or from other shipping containers.

      The active ingredient in these chemicals is apparently Cypermethrin, which is a broad-spectrum insecticide known to be harmful to fish.

      The pumped water to be treated in these shipping containers would become contaminated with Cypermethrin, so it would be unacceptable that it be subsequently pumped into the Moon River.

   c) There is an unknown black substance coating the floors of these shipping containers. Also, it is not known what materials these shipping containers have been used to transport in the more than ten years of use since they were manufactured in China. Pumped water passing through these shipping

containers would transfer these unknown materials directly to the Moon River, which is unacceptable.

d) I understand that setting tanks must be cleaned before transport. As the shipping containers currently installed do not have a valve at the bottom, they could not be adequately cleaned.

Not only are these shipping containers therefore not equivalent to commercial models, they would be harmful to the environment, and should therefore not be used. The MOECC should order these be immediately removed from this environmentally-sensitive area.

The above concerns are applicable to all construction sites that attempt to use shipping containers as settling tanks. The MOECC should work with the Canadian Standards Association and the dewatering industry to establish performance and operation standards to ensure such attempts at repurposing used shipping containers would provide the environmental protection of commercial settling tanks.

2) The Bala #2 generating station was demolished 45 years ago, in 1972, by a local contractor. It is not known what hazardous equipment or other harmful substances remain buried and would therefore be disturbed during the proposed excavation.

a) It is important to note that the Phase II Environmental Site Assessment (ESA) found unacceptable levels of Zinc only from the exploratory borehole closest to where the Bala #2 generating station was located. This indicates that more testing should have been done in the 16' x 16' area where the Bala #2 generating station was, which is accurately shown on historical official surveys. The Phase II ESA was therefore inadequate.

b) It is therefore unacceptable that the proponent would be permitted to pump water from their proposed excavation directly into the Moon River based solely on the turbidity of this pumped water, since many harmful substances, such as Zinc, fuel oil, and PCBs, would not significantly increase the turbidity of the pumped water compared to the contaminants it could contain.

c) This demolition was seven years before PCBs were banned, so precautions we now know are necessary would not have been taken at that time. PCBs are particularly harmful to fish, so all water pumped from this proposed excavation should be first pumped to a settling tank so that it can be stored until laboratory test results confirm it can be released to the Moon River.

Such laboratory testing should be for Zinc (as found during the Phase II ESA), as well as for petroleum hydrocarbons and PCBs, as recommended by the Phase II ESA.

3) The November 2013 ESA found (in Section 4) that operation of the Bala #2 generating station was a “Potentially Contaminating Activity” for the site, which therefore may have polychlorinated biphenyls (PCBs) which were commonly used at the time in electrical transformers and other electrical equipment. As this industrial facility had rotating machinery and operated for decades, the floor and other materials left buried would have substantial accumulations of oil and grease, all of which would have been left buried there.

Even though the ECA notes the “Area of Potential Environmental Concern” is: *“Possible hydrocarbons or PCB impacts around historical substation at the southwest portion of the site”* (in Section 5), none of the exploratory boreholes were at or downstream of this location as the slope of the surface was too steep for the drilling rig (in Section 6.6). It is

unacceptable that due to this logistical issue the Phase II ESA did not identify the locations of hazardous materials on the site.

Also, it could be that any PCBs are still contained in buried electrical equipment, so excavation of the site should take precautions so that any such equipment can be removed intact.

4) The MOECC should immediately require the proponent to cease driving heavy construction equipment over the location where the Bala #2 generating station was, to avoid damage to transformers or disturbing other contaminants buried there as part of the demolition 45 years ago.

5) This site:

   a) Is an Environmentally Sensitive Area, due to it being directly adjacent to a body of water.

   b) Has a Property Use category of Industrial Use, as an electricity generation facility was located on it for approximately 50 years.

      This is a Potentially Contaminating Activity, and there could be electrical equipment containing PCBs, fuel storage tanks and other hazardous materials buried where the proponent would need to excavate.

   c) Did not meet the required Site Condition Standards for the required a Phase II ESA, as elevated levels of Zinc were found in the ground water even though the testing was done upstream of the likely source.

      This Phase II ESA was inadequately conducted as it did not: *"determine the location and concentration of one or more contaminants in the natural environment"*, as is required by the Environmental Protection Act.

   Therefore, this site should be designated as a Brownfield site.

6) All subsequent environmental work conducted and supervised by an independent Qualified Person, as:

   a) Site remediation may be required.

   b) All soil and materials removed from the excavation on this MNRF land must not contaminate the adjacent land owned by the Township of Muskoka Lakes.

   c) While the November 2013 ESA showed unacceptably elevated levels of Zinc in the groundwater, the proponent claims that subsequent October 2016 testing shows these levels are now all "undetectable".

      As the Zinc levels were previously reported to be 26.6, 12.6, and 1,040 µg/L, it is unlikely all three could become undetectable, which is why an **independent** Qualified Person must now become responsible for this site.

7) It is unacceptable that the ECA would permit water to be pumped directly into the Moon River above the falls, as any silt or other visible contaminants could not be observed due to the mixing as the water would flow down the falls. Any water release should be only to below the falls.

8) The pipes from the pumps to the settling tanks could leak. As these pipes would be suspended directly above the Bala south channel, leaks would directly enter the Moon River. Therefore, a leak containment and inspection plan is required.

9) The recent decision by the Environmental Review Tribunal for proposed wind turbines near two Collingwood airfields confirmed that the MOECC:

   a) Does have responsibility to assess dangers to human health as part of the environmental assessment for a proposed project.

   b) Also has a responsibility to obtain input from experts (such as for aviation for the Collingwood proposed project, and for in-water recreation for the Bala proposed project), if the usual sources of expertise (such as Transport Canada and the Ministry of Natural Resources and Forestry) do not have the required expertise.

   c) Must not approve a proposed project for construction with the condition or assumption that public safety aspects will be addressed at some later date.

   We therefore request that the MOECC require the proponent to provide a safety plan showing how they proposed to operate this proposed project safely. This safety plan must be prepared by those with relevant expertise, and is to be presented to the public as part of an Addendum to, so that the public would be informed of this plan, and so that the public can provide comment.

[End of Additional Pages for Question #3]

Additional Page for Question #4

10) The following is a summary of the evidence that supports our Application for Review:

a) The proponent now has six 40'-long open-top overseas shipping containers at the north end of the Precambrian Shield parking lot. All evidence is there to see, including the manufacturer's standard metal data plate, proximity of the tanks to the adjacent water body, and rust preventing the door gasket seals and pipes from being water-tight.

b) The shipping container manufacturer's standard metal data plate riveted to each shipping container notes that the wood floor "Timber Component Treatment" is Radaleum-FHP-60 on some tanks, and Tailileum 300 on other tanks.

These are insecticides known to be harmful to fish, so water from these shipping containers must not be permitted to enter the Moon River.

c) Another label on the tanks note they are constructed of COR-TEN steel, which is designed to rust as a protective coating. Observation of these tanks and the pipe section used to interconnect them show significant rusting.

The result is that the gasket seals and caulking will leak, due to the rusty surface.

Therefore, these shipping containers are not acceptable as settling tanks.

d) The proponent's November 2013 Phase I and Phase II Environmental Site Assessment provides site information and test results.

For example, the demolition of the Bala #2 generating station may have left buried electrical equipment containing PCBs at the site.

e) Historical surveys show the exact orientation and location of the Bala #2 generating station on the site. The ESA and photographs of the site show the location of the three exploratory boreholes. An overlay of this information is shown at http://savethebalafalls.com/?p=6522

I can provide photographs and maps showing all of the above.

11) Section 5.2.2.1 of the proponent's 2009 Environmental Screening/Review report stated: *"Excavation and cofferdam dewatering activities will require pumping water from the work areas to a setting pond away from the watercourse."*

As the proponent has located their settling tanks adjacent to both a water body, and an open ditch leading to that same water body, they are not honouring the commitments made for their 2013 environmental approval.

This is yet another environmentally-significant change, and justification why their new plans should be disclosed to the public through the Addendum provisions of the *Guide to Environmental Assessment Requirements for Electricity Projects*.

[End of Additional Page for Question #4]