From: Peter Large
Sent: Monday, August 19, 2013 10:36 AM
To: Yasir Naqvi Lib
Cc: Bob Chiarelli Lib; Pam Barnard; Wayne Calver; egillespie@gillespielaw.ca; doris.dumais@ontario.ca; Keech Larry; randy.hillier@pc.ola.org; Peter Hendra Whig; protectai@kos.net
Subject: Fire Concern: Amherst Island - Algonquin Power Wind Turbine Project

Association to Protect Amherst Island
PO Box 4, 5695 Front Road
Stella, ON K0H2S0

August 19, 2013

Hon. Yasir Naqvi
Minister of Labour
400 University Ave.
14th Floor
Toronto, ON, M7A1T7

Dear Minister;

Please find enclosed 3 attachments:

- a letter regarding fire concerns for Amherst Island in relation to the Algonquin Power Wind Turbine Project
- previous correspondence to Algonquin Power Corp
- Ontario Ministry of Labour's Fire Fighters Guidance Note #6-35

Regards,
Peter G.S. Large, P. Eng.
President, APAI

association to protect
AMHERST ISLAND

PO Box 4, 5695 Front Road
Stella, ON K0H2S0

August 17, 2013

Hon. Yasir Naqvi
Minister of Labour
400 University Ave.
14th Floor
Toronto, ON, M7A1T7

Dear Minister;

Thank you for your letter of July 31, 2013 in response to our concerns about the potential for fire on Amherst Island. I was pleased to read that ‘your role is to advance safe, fair, and stable workplace practices, essential to the social and economic well-being of the people of Ontario', that you 'recognize (our) concerns about the safety of Amherst Island families and the possible fires resulting from wind-turbines' and that 'your Ministry takes concerns about fire safety very seriously'.

Algonquin Power Inc. proposes to construct 33-37, 50-storey tall wind turbines on Amherst Island. Amherst Island has a volunteer fire department, with one pumper truck.

On Feb. 14, 2013, I wrote a letter on behalf of the Association to Protect Amherst Island, to Mr. Ian Robertson, CEO, Algonquin Power, subject; 'Fire Fighters Guidance Note # 6-35; Issue: Wind turbines.'

That letter is attached. It and describes clearly how serious fire risk can be on Amherst Island. The Fire Fighters Guidance Note is mentioned. Our letter asks, 'Will Algonquin follow the Ontario Ministry of Labour's Fire Fighters Guidance Note # 6-35 as it applies to wind turbines...and other questions specific to Algonquin's fire safety precautions on Amherst Island, if their project were ever approved.

We have received no reply, which we can only interpret to mean that Algonquin is ignoring 'Fire Fighters Guidance Note # 6-35: Issue: wind turbines,' and, apparently does not consider safety from fire on Amherst Island to be a priority.

We will seek further advice on this matter.

Respectfully submitted,
Peter G.S. Large, P. Eng.
President, APAI

cc:

- Honourable Bob Chiarelli, Minister of Energy
- Loyalist Township Council
- Mr. Wayne Calver, Fire Chief, Loyalist Township
- Mr. Eric Gillespie, LLB
- Ms. Doris Dumais, , Director, Environmental Approvals MOE
- Lennox and Addington County Council
- Mr. Randy Hillier, MPP, PC
- Mr. Peter Hendra, The Kingston Whig Standard
- protectai@kos.net

association to protect
AMHERST ISLAND

PO Box 4, 5695 Front Road
Stella, ON K0H2S0

Mr. Ian Robertson, CEO, Algonquin Power
2845 Bristol Circle
Oakville, Ontario L6H 7H7

February 14th, 2013

Subject: Fire fighters Guidance Note # 6-35, Issue: Wind turbines

Attached is the Ontario Ministry of Labour Ontario Fire Service Section 21 Advisory Committee 'Fire Fighters Guidance Note #6-35', specifically addressing 'emergency incidents involving wind turbines'.

International experience shows that wind-turbine fire is the second most prevalent 'accident' experienced in wind turbine installations, surpassed only by 'blade throw'.

The Ontario Ministry of Labour Guidance Note describes clearly how fire in turbines begins and how dangerous such fires can be.

In 2012, Amherst Island had its driest summer in many years. Late that summer, a fire was started by mishap in grasses and dry marshlands in the southwestern part of the Island. It burned over 200 acres, lasted some 20 hours and was barely contained by Island volunteer fires services, even with help from the Bath Fire Department.

Islander's homes, many with barns, outbuildings and livestock, are dispersed throughout the Island. Fire can be difficult for firefighters to reach and, depending upon wind direction, could put both Island homes and families at risk.

The proposed introduction of 33-37, 50-storey tall turbines here adds significantly to that risk.

Our questions to Algonquin are:
• Will Algonquin follow the Ontario Ministry of Labour's Fire Fighters Guidance Note #6-35 as it applies to wind turbines, with particular attention to the safety of Island residents, their homes, barns, out-buildings and livestock?

- In view of:
  - the severe fire risk to Amherst Island that the proposed industrial-scale wind turbine installation would bring,
  - in consideration of the Island's volunteer fire service having neither the training nor the equipment to deal with a turbine fire,
  - moreover, with the knowledge that the nearest mainland fire service requires an hour, minimum, to bring help to the Island, what permanent precautions and safety features to handle turbine fires does Algonquin plan to install on Amherst Island?

- Guidance Note #6-35 states, 'In co-operation with the wind turbine owner, fire departments should develop response safety plans that address issues such as:
  - Access to sites and contact numbers (24/7) for site supervisory staff
  - Safe collapse zones
  - Rescue options for workers trapped in the nacelle in non-fire situations
  - High-voltage components and combustible materials within the wind turbine
  - Safety of Island residents, their homes, out-buildings and livestock

Has Algonquin, in conjunction with local firefighting services, prepared the plans recommended in Guidance Note #6-35?

I look forward to your early reply.

Peter G.S. Large, P.Eng,
President, the Association to Protect Amherst Island

p.p. RG

cc:
- Mr. Homer Lensink, Algonquin Power
- Loyalist Township Council
- Mr. Wayne Calver, Fire Chief, Loyalist Township
- Eric Gillespie, LL.B.
- SAVE AI

FIRE FIGHTERS GUIDANCE NOTE # 6-35

ISSUE: WIND TURBINES

Fire Departments should develop SOPs/OGs on emergency incidents involving wind turbines.

Fires involving wind turbines may present a health and safety hazard to firefighters due to the electronics, flammable oils and hydraulic fluids that exist in the turbines. For example, up to 750 litres of hydraulic oil can be found in the nacelle. Electrical fires can also result from both shorts in equipment and surges that may result from lightning strikes. Additionally, secondary wind driven brush fires originating from wind turbine fires can also result in significant damage. Due to the height of wind turbines, firefighter health and safety may be endangered during a rescue from these turbines.

Fire Departments should contact the owner of the wind turbine(s) in their response area and establish the level of assistance that the fire department is able to provide. There may be opportunities for training and/or equipment to be provided to the local fire department from the wind turbine owner.

In cooperation with the wind turbine owner, fire departments should develop response safety plans that address issues such as:

- Access to sites and contact numbers (24/7) for site supervisory staff
- Safe collapse zones
- Rescue options for workers trapped in the nacelle in non-fire situations
- High-voltage components and combustible materials within the wind turbine.

SAFETY CONCERNS AND FIREFIGHTING SAFETY PRECAUTIONS:

Although it is rare, there is a potential for wind turbines to catch fire. While some wind turbines may be equipped with suppression systems, others may not. Most fires in wind turbines will be caused by mechanical failure of the equipment within the nacelle or electrical issues and are fuelled by up to 750 litres of hydraulic oil in the nacelle as noted above.

Typically, a turbine fire does not last long enough to warrant aerial attempts to extinguish the fire. As such, it should be allowed to burn itself out while staff and fire personnel maintain a safe area around the turbine and protect against the potential for spot ground fires that might start due to sparks or falling material. Power to the affected turbine should be disconnected by qualified personnel.

Although turbine tower collapses are rare, there is a potential of tower collapse due to various circumstances. The reasons for collapses vary depending on conditions and tower type, but have included blade strikes, rotor over-speed, cyclonic winds, and poor or improper

maintenance (torque bolts). The majority of the major components (rotor, tower, and nacelle) have fallen within 500 metres from the base. The fire department should establish a safe work perimeter around the base of the wind turbine when there is a risk of public exposure to this hazard.

Reference:

GN # 6-20 Electrical Hazards in Rescue and Fire Situations