

EB-2010-0310

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Ms. Kirsten Walli <sup>10/14/10</sup>  
Board Secretary,  
Ontario Energy Board,  
P.O. Box 2319,  
Suite 2700,  
2300 Yonge Street,  
Toronto, Ontario  
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ONTARIO ENERGY BOARD

Re: EB-2009-0187

Extra high pressure large diameter natural gas pipeline to serve the York Energy Centre LP

Dear Ms. Walli:

It has come to my attention that the OEB Decision and Order in case number EB-2009-0187 did not address three important safety matters that are applicable to this pipeline. These issues are:

1. The minimum setback from this pipeline to buildings occupied by the general public;
2. The use of a road allowance rather than a dedicated right-of-way;
3. The minimum depth of burial.

The board decision refers to various technical standards that do not adequately address the safety issues that are applicable to this particular pipeline.

1. For this pipeline (16 inch diameter natural gas pipeline operated at 650 psi) both theory and accident experience show that a rupture failure will cause virtually everything within 160 m of the rupture to be destroyed by fire. There will be various amounts of damage extending out to about 320 m from the rupture, depending upon the terrain and the response of local fire protection services.
2. The probability of a rupture failure triggered by combination of an impact accident that damages the protective coating on the gas line and acid soil corrosion is greatly increased if the pipeline is located within a road allowance as opposed to a dedicated energy transmission corridor. The

probability of such an accident is further increased if the depth of soil cover is 1 foot (300 mm) as compared to 10 feet (3 m). The difficulty with a 10 foot burial depth in this region is that the pipeline is nearly constantly below the local water table.

3. The depth and density of the soil cover over the pipeline is critical in the case of this pipeline because this area is subject to occasional flooding. When a flood occurs the pipe will tend to float to the surface unless the average density of the pipe plus its direct cover exceeds the density of water.

The reasons why the existing pipeline technical specifications are inadequate are beyond the scope of this letter. It is sufficient to say that these safety matters should be specifically addressed by the OEB, irrespective of the inadequacy of the existing technical standards.

I am not criticizing Enbridge, as their engineers have done their best within the political constraints imposed upon them. However, the blunt reality is that the pipeline, as presently contemplated, will be an accident waiting to happen. When such an accident occurs the damage and costs will likely be comparable to the recent accident in San Bruno, California.

If construction of the pipeline proceeds as presently contemplated and then an accident occurs, the whole OEB approval process and everyone involved in it will be in disrepute. In my view the province of Ontario would be held liable for all damage because, from a technical perspective, the safety issues were well understood prior to commencement of construction.

In my view the best solution to this problem is for politicians in King City to zone a dedicated east-west energy transmission corridor and for Enbridge to locate a large diameter high pressure natural gas pipeline in the center of this corridor. One side of this corridor could be used for electricity transmission and a future rail right-of-way. The other side of this corridor could be used for a future roadway. In my view King City should zone bands approximately 200 m wide on either side of this corridor as agricultural only to provide a buffer zone between the energy transmission corridor and the general public.

In the event that the new council of King City is prepared to zone a suitable dedicated energy transmission corridor, I urge the OEB to revisit its decision with respect to the pipeline route approved in EB-2009-0187. In revisiting its decision I urge the OEB to specifically address the aforementioned safety issues.

Yours respectfully,



Charles Rhodes, P. Eng., Ph. D.