Chessmen Media Group

Applying strategy to help you become more effective

Enbridge Pipelines Inc. (Enbridge) Line 9B Reversal
And Line 9 Capacity Expansion Project (Project)
Application under section 58 (Application) of the National Energy Board Act
OH-002-2013
Information Request
File OF-Fac-Oil-E101-2012-10 02

Request

Requesting an Extension of time to file, 6 August 2013 server down for some days.

My Engineering Experience.

Please note that while working on British, American and Canadian Governments. NASSA, NATO, and European Space Agency. (ESA) Programme and contracts I had top-level security clearance (Top Secret) they all entailed working to the top level of international standards and specification.

I have worked for the British, American and Canadian Governments.
I have worked for Nassa, Nato, and European Space agency.
In many different areas of engineering, electrical engineering, mechanical engineering, environmental engineering, Quality Assurance engineering, Environmental engineering, Reliability Engineering, Health and Safety

Documentation Systems, Audit trail, traceability, process and procedures specification design and augmentation and overall control and management systems design.

I also have experience in legal documentation writing, specification writing. Procurement specifications, and legal procedural controls.

Reliability engineering

I had responsibility for the reliability engineering analysis of the control system component of the re-tubing of Pickering Nuclear Energy power station.

I had to ensure hat all the control systems met the reliability engineering criteria that was mandated for Nuclear energy power stations.

I also had to write legally binding specifications and documentation for project
One company I worked for manufactured mechanical testing machines
Such as Rockwell machine
I was production engineer while in their employment responsible for manufacturing and calibration of the Rockwell machines

Pre-amble on Documentation and procedural bad governance

The following comments are very pertinent and are evidence in themselves that this process is flawed.

I would like to point out some procedural abnormalities which I think would actually fall under the heading of bad governance and a completely unscientific approach and a non standard engineering approach.

When a question is asked directly to a design engineering authority from any person who has the authority to do so and / or from reliability engineering background the established procedure all over the world is that the design authority responds directly to the question and directly to the questioner.

This is the established protocol that has been established through good engineering and good scientific practices throughout the world in all reputable companies, projects and countries.

Grouping questions together is a completely non-professional practice and also not responding directly to any question is also a non-professional practice.

This in my mind calls into question the professionalism of both the National Energy Board process and Enbrige's engineering standards and practices.

This practice is totally heinous and a wicked philosophy, which is being instituted by this whole process and brings the whole process and Canada as a county in the eye of the world as to the " Mickey Mouse" engineering practices which we are employing in this country and for pipe line projects.

All Questions must be answered directly and individually to the questioning party and all questions must be answered individually.

If this is not done this whole process is a farce and a mockery of the process and the governance of this country

I would like to point out that the catastrophe caused by the runaway train in Lac-Megantic Quebec was caused by bad engineering principals and not enough planning, procedures or reliability engineering principals being applied and not applying the correct criteria to the operation of the system.

This is the same thing happening with line 9

Line 9 is a system and it must have 100 % integrity this can only be achieved through the correct criteria being applied through reliability engineering principals, safety principals and principals of physics and science.

This cannot be done through risk management as risk management only looks at money.

Line 9 and the tar sands (or oil sands) is dealing with peoples lives, their health and their quality of life, our water supplies and soil, this can never be put into risk management.

If you think you can, tell that to the relatives of the 40 odd who died in Lac-Megantic Quebec

The tar sands is dangerous all questions must answered honestly and fully and directly.

Additional Information that must be supplied by Enbridge is: -

(A) What ISO standards apply to the total system and all sub systems under this application

(B) No Approval can be legitimately given without knowing what the total chemical composition of the contents of the pipe will be, otherwise it will be like giving a blank cheque to Endbridge.

(C) What material science or Materials engineering structural test are being done on the integrity of the pipe line. How far apart will these measurements be taken.

(D) What Rockwell tests or similar tests are being done on the structure of the pipeline.

(E) What work hardening measurements have been done on the pipeline and what is the proposed future testing of this property of the pipeline and what are the figures for this parameter given the heating and cooling of the pipe.

(F) What amount of bond will be held in trust as that can be used in emergencies for the public if or when something goes wrong.

Evidence

(1)This process is flawed

(2) No evidence supplied by Enbridge

(1)This process is flawed for the following reasons.

There has been no substantive evidence either scientific or engineering evidence produced to show that any burden of proof has been met for safety or integrity by the applicant.

The responsibility for the burden of proof for the safety of this application and the overall integrity of the application and all the physical parts and systems and subsystems which shall cover at a minimum all the edicts of reliability engineering health and safety engineering and environmental studies and assessments (the environmental assessment shall contain current information and also long term projections taking into account long term effects and considerations of global warming and atmospheric instability and assessments based on unfettered scientific research) this responsibility is the responsibility solely of the applicant Enbridge.

A parallel example. A vehicle cannot be built and driven on a highway until certain design and safety requirements have been met.

Neither the government or the people have to prove the vehicle is not safe to be on the highway. The burden of proof is on the company who is applying to drive the vehicle on the road, they have to prove that he vehicle meets the required standards.

This principle in this example applies and must apply to this applcation.

It is not possible for any person, or group of people or society at large to prove the integrity or non-integrity of the application and it physical manifestations as all the documentation for this process is controlled by the applicant.

As the system has the potential to kill people and pollute land and water ways there must be evidence produced to show and prove all reliability engineering requirements have been met also that all other aspects of concern must be addressed by scientific and engineering protocols and principals. Statements that are part of a marketing plan shall not be admissible.

This application is being lost in all rhetoric and political interference placing profit and jobs in front of safety and people's lives and the health of the environment.

Therefore this application must be dismissed outright as there is no evidence substantive or otherwise being produced by the applicant (Endbridge) that proves any integrity or safety of the system in any sustainable format.

(2) No evidence supplied by Enbridge

(2) The evidence which I am supplying is that Enbrige have not answered any of my questions and therefore produced no substantive evidence to prove the integrity of the pipeline

These questions were all based on sound engineering principals related around reliability engineering, health and safety and other established engineering principals.

All the questions are set out in the following pages.

The following is a copy of the question asked on the 11 June 2013
I have not received answers to these questions

Question relating to the application

All Questions asked in this request for information will have the same scope of questions for all parameter and systems and equipment as covered in the preamble.

Reliability Engineering

Questions in (A) (1) relate to the existing pipeline.

Questions in (B) (2) relate to the change in pipeline use as requested in the application

Preamble

Reliability Engineering information requested shall apply to the complete pipeline network and system including but not limited to: -

All control centers,
All instrumentation and monitoring equipment.
All pumping stations, equipment and control systems
All electrical systems and supplies.
All systems and sub systems used in the running and administration of the pipeline
All water supplies used
All communication systems.
All back up systems

This applies to any unit or sub unit, any system or sup system for the continuous running, or and the partial running of the pipeline or the monitoring of the same, or, and, the process and procedures for startup, periodic inspection, routine

maintenance or, and, the shutdown of any or all of the system. This shall also apply to any ancillary system or sup systems.

This shall also apply to any of the above hat is not owned or controlled by Endbridge and, or is used at any point in the operation of the network or system.

Thos shall also apply to any and all contractor or sub contractors and or their equipment and or their personal

Definitions

Reliability Criteria is the edict that controls the reliability audit.
Fail operational, Fail Safe etc.

Mean time to failure may be abbreviated to **MTTF**

Mean time between failures may be abbreviated to MTBF

Planned Preventative Maintenance may be abbreviated to **PPM**

(A) Questions apply to the existing Pipeline

(1)

(a)What were the results of the original reliability analysis on the pipeline?

(b)To see the results of reliability studies and analysis on the original design, feasibility studies and construction stages of the original pipeline.

(2) What was the **PPM** for he pipeline since construction?

(3) What were the **MTBF** figures?

(4) What were the **MTTF** figures?

(5) What was the Reliability criteria for he original pipeline through the design, feasibility studies and construction stages of the original pipeline?

(6) What were the original contractual agreements with respect to all the Reliability engineering standards and analysis?

(7) Were any of the reliability engineering criteria or standards or MTTF or MTBF changed?

(8) From the reliability engineering information what was the Planned Preventative Maintenance (PPM) For the pipeline over the past years of operation

(B) **Questions apply to the Proposed Changes to the existing pipeline**

(1)

(a)What are the results of the reliability analysis on this proposal for the pipeline 2013?

b)To see the results of reliability studies and analysis on this proposal new design features, feasibility studies and construction stages of the this pipeline.

(2) What is the new PPM for this proposal?

(3) What is the new MTBF figures calculated 2013

(4) What are the new MTTF figures calculated 2013

(5) What is the current Reliability criteria for this application through the design, feasibility studies and any construction or modification to the systems for this proposal.

(6) Are there any special contractual agreements with respect to all the Reliability engineering standards for this application?

(7) Have there been any reliability engineering criteria or standards or MTTF or MTBF changed on this application.

Leak detection

(1) What is the procedure if a leak is detected any point in the system?

(2) Will pipe and the system be subdivided into sections so that sections can be isolated?

(3) What will be the minimum amount in liters of leak that can be detected at any point in the overall system that controls the flow of the contents in this proposal for Line 9 application?

(4) What is the distance between points in the system where the flow of the DilBit or the contents of the pipe can be isolated to stop the flow of the contents of the pipeline so as to limit any discharge from the pipe.

(5)What is the response time of the system to shut the system down when a leak is detected?

(6)What Quality Assurance that is applied to the overall system?

(7) What is an acceptable level of wastage in the industry on a pipeline of this length?

(8) What is the training given to the people monitoring the system and also running the system?

(9) What is the length of time that the DilBet will stop leaking out of the pipeline when a leak is detected?

(10) Given the composition of the content of the pipe how will turbulent flow problems be resolved?

(11) How will problems caused by velocity gradients across the pipeline be resolved?

(12) Have velocity gradients been taken into account in the reliability studies.

Temperature of pipeline

(13) What is the working temperature of the existing pipeline?

(14) What will be the working temperature of the pipeline if it is modified as in the proposal?

Pressure of the pipeline.

(15) What is the working pressure of the existing pipeline?

(16) What is the proposed working pressure of the pipeline covered in this proposal?

(17) In this proposal what is the maximum instantaneous pressure that the pipeline could stand without the system starting to have a malfunction, and, or a leak occurs.

(18) In this proposal what is the maximum continuous pressure overload that the pipeline could stand without the system starting to have a malfunction, and, or a leak occurs

Environmental

(19) What is the stress that the pipeline can handle as the pipeline is adjacent to an earthquake fault?

(20) What testing has been done on the pipeline to see what the effect of the temperature gradient across the pipe as this is now heated pipe.

(21) What is the temperature coefficient of the pipe?

22)What effect will the temperature gradient have on (a) The surface wave in the pipe?
(b)Any standing waves in the pipe?
(c)Any turbulent flow problems?

(24) What is the composition of the DilBet in the pipe?

(25) Given the fact that the material moving though the pipe is not oil and is not crude oil and the fact Bitumen is not oil and that because of this classification Exxon did not have to pay for the cleanup in leak in Mayflower Arkansas.

(26)As DilBit is not actually classified as an oil, who will be liable to pay for any cleanup when a leak occurs?

(27)Will Endbridge be responsible for the cleanup from any leaks or egress of the material in the pipeline and will the pay for all the cost that are associated with any of the product in the pipeline which may cause damage to ether property nature or people?

(28) What is the speed of the material in the pipe?

(29) Given the fact in bitumen is no oil and that DilBet is a solid that is liquefied with chemicals so that is only a sludge, which is suspended in chemicals. When will Endbridge stop calling it any kind of oil, as this is not true?

(30) It is a known fact in the perto-chemical industry that pipelines end up with microbes living inside the pipe and these microbes eat the pipe inside out. What efforts are being made to have systems in place to minimize any problems from a leak caused by this problem?

(31) Given the information contained within the **Atmospheric Considerations** I would like to know what environmental testing and environmental mapping is being do by Enbridge and any other oil companies to help mitigate climate instability which is being added to by the tar sands actions and excavations?

Atmospheric Considerations

As everything that we do in this world has an effect on other components with in the worlds balancing system we cannot expect to remove the crust of the world surface the size of Great Britain with out affecting the atmospheric conditions around the world.

The area and the volume of the tar sands has enough mass and geographical area to cause macro and micro climate changes and create there own local environmental and weather conditions.

Give he fact that stripping the forest and the top covering of the area know as he tar sand which is the Athabasca area of Canada is having an unbelievable effect on the weather patters.

Many effects may be occurring on a large scale that we are not observing. Temperature inversions for one and also the effect on high and low pressure cells, which could also lead the instability such that tornadoes would be created.

The Rossby Waves (the waves that are usually know as the jet stream) usually have a meandering pattern as the traverse around the world

It has been observed and measured that the Rossby Waves in the past few years have not been conforming to their normal meandering pattering.

It has been observed and reported by scientists all over the world that the Rossby Wave patterns have now taken on the format of great devotions from the norm. They now have deep troughs (great oscillations in their patterns.)

Give the fact that tiled earth attracts and retains heat until it is saturated and then it release the heat in what is cause a thermal. This is a bubble of hat air that pops of the earth atmosphere. These thermals will be popping of all day while the sun heating them. This will cause great atmospheric instability

Given the very large area of the excavation of the earth's surface, I think this is probable the largest area like this in the world which is manmade.

I think this may be causing the displacement of the Rossby Waves.

If my hypothesis is correct then this will be causing great atmospheric instability.

This needs to be examined by scientists and climatologists without any government or political interference.

If I am correct then the tar sands area is giving rise to great atmospheric instability nothing to do with any affect with temperature instability or global warming.

John Quarterly

President
Chessmen Media Group
(416) 696 5800 Phone Only
(416) 876-8093 Cell and Text

Email john@chessmenmediagroup.com