

Problems in the Pipeline

Natural Gas Transmission Systems

Hum and Flutter

Purpose

Inform and engage the public about a deleterious phenomenon of Low and Extra Low Frequency Sound Waves occurring in our communities from the operations of high pressure natural gas transmission systems known as Flutter and Hum that FERC refuses to deal with.

Discussion

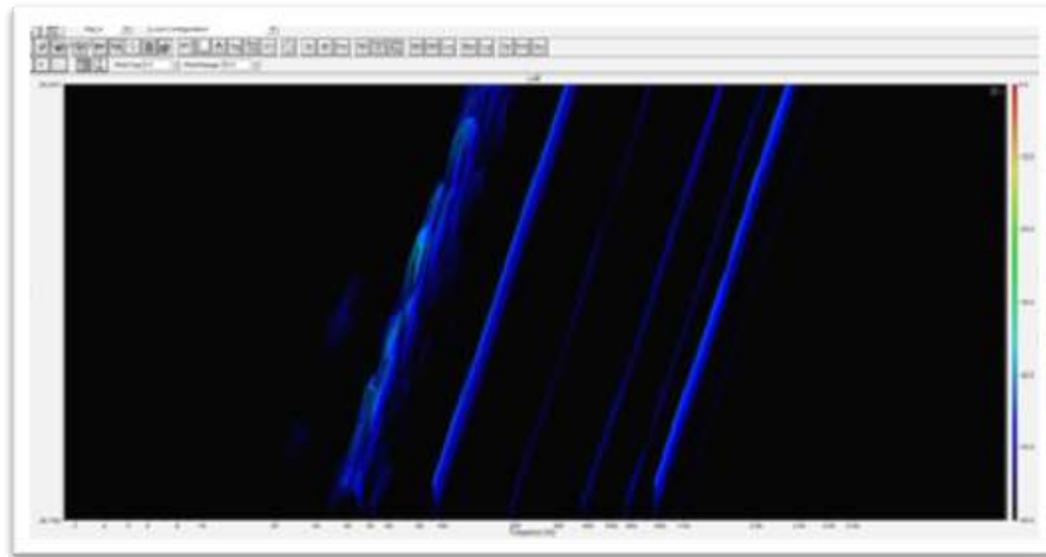
- **Background**
- **What is Flutter and Hum**
- **Should you be concerned**
- **How problems are handled by FERC**
- **What needs to be done**

Complaint Filing on AIM Project- Comments of Stephen Kohlhase re the Spectra/ Algonquin project under PF13-16- Docket PF13-16 (date filed October 11, 2013 as accession no's. 201310011-5010, 201301011-0011)

Go to FERC.gov and click on eLIBRARY in the upper right corner. Go to Search Options and select Docket Search. Enter Docket Number PF13-16. Click Submit

What is Flutter?

- The Flutter is constant pulsating airborne pressure waves radiating from Iroquois' Brookfield Station
- Localized to the neighborhood
- Sounding like rumbling from distant thunder
- Feeling like the pulsations from a helicopter flying in the distance
- Penetrates into the home and felt as vibration in the head and ears in room corners`
- People outside have experienced discomfort due to internal organ resonance



Flutter profile is depicted as the braided shaped line at 40 HZ

Should you be concerned?

What is The Hum?



- The Hum is a phenomenon, or collection of phenomena, involving a persistent and invasive low-frequency humming, rumbling, or droning noise not audible to all people (Wikipedia)
- Resonates enclosed structures causing sound and vibration between 1HZ to 50 HZ
- Region wide as well as spread across the country
- Sputtering tonal sound and accompanying vibrotactile sensations- generally described as sounding like varying intensities of an idling diesel engine constantly running somewhere outside the home
- Felt more often than heard
- Mostly sensed inside enclosed structures
- Low Frequency sound waves travel over 25 miles away from these lines
- Far more expansive and concerning than Flutter and little known about it!

Should you be concerned?



Health Impacts of LF Disturbance on Humans

Drives sufferers literally crazy from physical and mental torture from chronic low frequency noise and vibrations, inner cranial distress, ringing ears

Sleep Disorders

Sleep is an active and essential process that allows the body to restore itself in order to maintain cognitive and physical functioning. Unfortunately, sleep disturbances are very common in the United States. Listed below are common sleeping disorders. For each disorder, there are common symptoms associated with each disorder and available treatment measures. Sleep specialists can diagnose these conditions using special techniques.

Effects of Sleep deprivation

- Irritability
- Cognitive impairment
- Memory lapses or loss
- Impaired moral judgement
- Severe yawning
- Hallucinations
- Symptoms similar to ADHD
- Impaired immune system
- Risk of diabetes Type 2
- Increased heart rate variability
- Risk of heart disease
- Decreased reaction time and accuracy
- Tremors
- Aches
- Other:
 - Growth suppression
 - Risk of obesity
 - Decreased temperature

-Onset of Health Symptoms with no medical explanation.

-Break through research evolving in new fields- Vibroacoustic Syndrome (VAS), Vibroacoustic Disease (VAD), and Wind Turbine Syndrome (WTS).

-Being focused on in causing Sick Building Syndrome and Chronic Fatigue.

-Researchers are unraveling the impacts on humans including mood swings, throat and digestive problems, psychiatric disturbances.

- * Insomnia
- * Nausea
- * Muscle Spasms
- * Difficulty concentrating
- * Fatigue
- * Heart Palpitations
- * Headache
- * Tension
- * Eye Strain
- * Burning Skin
- * Pins and Needles
- * Ear Pressure

Brain Activity and Sound Frequency



Frequency (HZ)

1 Heartbeat Rhythm

1-3 Sleep Pattern

3-5 Paranoia/Hallucinations/Amnesia/Illusions/Drowsiness 'Absent' Feeling

6-7 Depression/Suicidal Feelings/Visual Distortion/Confusion

8-11 Cannot Relax/Feeling Unwell/Unhappy

11-13 Anger/Manic Behavior/Problems with Movement/Flashes/Loss of Appetite

14-18 Small Seizures/Disturbed Orientation/Auditory/Visual Hallucinations

18+ Inability to make decisions/Sensory problems (sight/touch/sound)

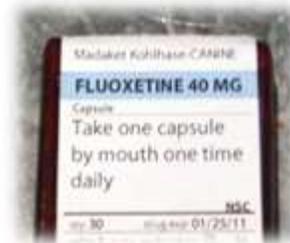
24+ Confusion/Flickering/flashing lights/Dizziness

35+ Mania/Hyperactivity

40+ Anxiety/Sleep disturbance/Reaction time slowed/Unable to make decisions

Should you be concerned?

Effects of Hum on Animals and Wildlife



Unusual coyote sightings/ need of Pet Tranquilizers when Hum started mid 2009

Correlations to lines and research indicate a likely link to LF sound and vibration

- Honey Bee Colony Collapse Disorder (CCD)
- Brown Bat White Nose Syndrome (WNS)
- Collapse of the Lobster population in the western end of the LI Sound and other locations
- Others

Should you be concerned?

How Problems are Handled

Commitments from FERC

“Please know that the Commission is committed to ensuring that natural gas pipeline facilities under its jurisdiction comply with our requirements regarding noise and vibration and to addressing the concerns of nearby residents

Confirmations of Problems by FERC

FERC visits affected homes in Brookfield and verifies homeowner complaints then requests of Iroquois Gas Transmission System a plan to remedy apparent vibrations confirmed by FERC

Gas Company Response

“As the report notes and as the Commission’s staff has found, Iroquois is in full compliance with all applicable noise standards. Nevertheless, in the interest of being a good neighbor, it has voluntarily devoted substantial additional time and resources to addressing the continuing concerns of a few landowners. Those efforts have concluded, and Iroquois submits that the costs and harmful impacts of the undertaking efforts at this time would seriously outweigh any potential benefits. Accordingly, Iroquois’ current plan is to take no further action on this matter.” The company does not disclaim there is a problem, only that people have to live with their caused hardship.

FERC ceased resolution since the companies response in July 2012

Should you be concerned?

In Closing

- *Ask yourself if you or someone you know is experiencing unexplained symptoms discussed earlier. Ask questions.*
- *Don't think you aren't affected just because you don't live on top of these lines nor hear the Hum. It's like radiation or carbon monoxide. It is affecting someone every minute, and in some direct or indirect way will eventually affect you and your family.*
- *Contact and File letters to your Government Representatives and FERC of your concerns about these problems.*
- *Demand that Spectra Algonquin and other Gas Companies companies fund independent hum and flutter research, bring in the right resources to study and solve problems in the pipeline BEFORE the AIM project is approved.*

Yes you need to be concerned!