Sunset Advisory Commission Wednesday, December 19, 2012 Senate Finance Committee Room Room E1.036, Capitol Extension 1100 Congress Avenue Austin, Texas 78740

Subject: Witness Comments for Sunset Review of the Railroad Commission of Texas by Charles E. Morgan, P.E., Inactive

These comments relate to Issue 3, Pipeline Safety Program of the Railroad Commission (RRC) of Texas. We request legislative action to authorize the RRC to regulate noise generated by Oil and Gas operations within the state as well as other energy producing operations.

We have several deaths within Freestone County from brain aneurisms, heart attacks and internal bleeding as well as other severe body symptoms caused by Low Frequency Noise (LFN) generated by natural gas compressor stations. These gas compressor stations are an integral part of the Oil and Gas Pipeline System. They serve to pressurize the gas to send it on down the line to gas treating facilities. They generate unabated LFN in county areas that also penetrates into cities.

Cities have ordinances to control noise, but no one in Texas has authority to regulate noise generated in county areas. Pipeline equipment such as gas compressor stations are generally located outside city limits; however, the low frequency noise travels five to eight miles and thus affects people within cities as well as people in county areas.

Environmental Protection Agency (EPA) authority to regulate noise issues was created with the 1972 Noise Control and Abatement Act. This authority was delegated to the states in 1982 as a cost cutting measure after the EPA had developed some rules in 1974 to control noise. Low Frequency Noise was not addressed in those rules. Only six states have enacted state noise laws to protect their citizens. The State of Colorado has a state noise law that addresses the LFN issue. Our citizens in Texas are just unprotected.

Noise must be properly addressed by not only decibel (dB) levels, but also by its frequency in cycles per second (cps). Noises within the human hearing range are typically 500 cps to 20,000 cps. The LFN is noise below 500 cps. The EPA set a noise limit of 55 dB generally and 45 dB near schools. They indicated that 70 dB caused hearing loss. I have measured 85 dB at 31.5 cps on my back porch with a \$3,000 noise meter. My home is nine tenths of a mile from a gas compressor station having 10 gas compressors of 1,340 horsepower each, without noise abatement.

A disease named Vibro-Acoustic Disease (VAD) has been found and named by the Human Development Center in Lisbon, Portugal who found that it is caused by LFN. Studies performed in New University Lisbon- Portugal show that the various frequencies of LFN affect different systems within the human body. Autopsies performed on persons who died of VAD after extended exposure to LFN confirm the study findings. I Live in Freestone County and have been diagnosed with this disease. One of my eardrums has been ruptured twice. The LFN is causing me to suffer from many symptoms of the VAD. I am being run out of my home most days due to intolerable noise from the gas compressor station nearby. Performance of needed ranching operations has been curtailed. I had lived in my home in perfect health for twenty years prior to installation of the compressor station.

Many of our neighbors and others within the county and other areas of the state are suffering from the LFN. As an American citizen and twenty year Air Force veteran, I should be able to live anywhere in the United States in safety.

We must enact legislation in Texas to allow enforcement of the 1974 EPA noise levels identified as requisite to protect the public health and welfare with an adequate margin of safety. These EPA noise limits do not address LFN. Therefore, I am submitting LFN noise limits and testing parameters that will protect our citizens. I have researched these issues, performed testing and have experienced the LFN health affects as well as observed and received data on affects on others.

With 130 natural gas compressor stations in Freestone County having no noise abatement and numerous gas compressor stations in many other counties, our people are being harmed, dying and being forced to move from their homes. Our children are being affected in their schools and homes.

We must provide authority to the RRC to develop and enforce noise rules to provide a safe living environment for our citizens. We need legislative action on the noise issue.

Sincerely.

Charles E. Morgan, P.E., Inactive

Major, USAF, Retired Executive Director,

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Attachments:

- 1. EPA Noise Parameters
- 2. Petition for Noise Protection
- 3. Low Frequency Noise Limits, Proposed
- 4. Twelfth International Conference on Sound and Vibration, Paper 584
- 5. Charles Morgan, P.E., Inactive, Paper on LFN Health Effects
- 6. Dew, Texas, Freestone County, Gas Compressor Station Picture
- 7. Noise Barrier Example, Picture
- 8. Example Compressor Acoustical Building
- 9. Second Example Compressor Acoustical Building
- 10. Map, Freestone County Compressor Station Locations, 69 in year 2009