



June 10, 2013

Re: FRA Waiver Support for the Automated Horn System

Dear Current Automated Horn System Customer:

In November of 2012 during the in-service testing of an Automated Horn System (Wayside Horn) in Commerce City, Colorado an issue was brought before the Federal Railroad Administration (FRA) by the BNSF regarding its operation during slow train movements. The issue raised is whether a Wayside Horn is compliant to the FRA regulations if the horn ceases sounding prior to the lead locomotive reaching the far side of the roadway, thus completely blocking the crossing. The FRA responded that it was opinion that for a wayside horn to be compliant with the regulations set forth in 49 CFR Part 222 that the wayside horn must continue sounding its horn until the lead locomotive reaches the far side of the roadway thus blocking all roadway access to the crossing.

For a Wayside Horn to be compliant with 49CFR Part 222 the system must meet all requirements set forth in Appendix E. The issue that arose in Commerce City, CO relates specifically with requirement 5 which states, "Horn System must sound at a minimum of 15 seconds prior to the train's arrival at the crossing and while the lead locomotive is traveling across the crossing. It is permissible for the horn system to begin to sound simultaneously with activation of the flashing lights or descent of the crossing arm." Railroad Controls Limited has installed not only the Automated Horn System(s) in your community but in over 30 different communities across the United States over the last thirteen years. Up until this issue was brought before the Federal Railroad Administration we believe that we have been fully compliant to the requirements set forth in Appendix E.

Along with the requirements set in the Train Horn Rule a Wayside Horn may only be used at crossings equipped with flashing lights, automatic gates, a power-out-indicator and constant warning time circuitry. The Wayside Horn utilizes outputs from the railroad's constant warning time device to begin sounding when the railroad approach circuit is activated and ceases sounding when the railroad island circuit is activated. Generally the railroad's island circuit is offset from the roadway by using the operating railroad standard for highway-crossing design. Since Wayside Horns utilize the railroad island circuit to silence the Wayside Horn, the Wayside Horn must utilize a time delay to cease sounding the audible warning upon activation of the railroad island circuit. Since the Federal Railroad Administration's new interpretation requires that the

Wayside Horn continue sound until the lead locomotive blocks access to the crossing from all roadway approaches, all current Wayside Horns are non-compliant. At this time there is no technology, that we are aware of, which will provide an indication of where the locomotive is on the railroad island circuit. The current technology used for the railroad island circuit can only determine that there either is or is not a locomotive present within the limits of the railroad island circuit, it cannot provide any indication where the locomotive is located within the railroad island circuit.

We believe that establishing a minimum fixed amount of time for the Wayside Horn to blow once the railroad's island circuit is occupied is a prudent approach to take in order to address the Federal Railroad Administration's new interpretation. We believe that this fixed time should be calculated based upon a train speed of 15 mph and the length of the railroad's island circuit measured from the beginning of the railroad island circuit to the far side of the roadway. By providing a minimum speed, a fixed amount of time can be programmed into all current and future locations and the Wayside Horn will sound its audible warning until the lead locomotive blocks access to the crossing from all roadway approaches. This solution will enable the Wayside Horn to overcome the current limitations of constant warning time circuitry. We conclude that slower speed train movements of 15 mph or less do not present a significant risk of loss of life or serious injury and offers greater opportunity for locomotive engineers to observe and react to roadway conflicts or potential roadway conflicts ahead by applying braking or by blowing the locomotive horn in addition to the Wayside Horn operation which may silence prior to reaching far side of the roadway.

During our discussions with the FRA it was suggested that we submit a waiver petition for relief from the requirement in 49 CFR § 222.59 that wayside horns must conform to the requirements of appendix E to 49 CFR Part 222 – namely, the requirement in Appendix E that the wayside horn system must sound "...while the lead locomotive is traveling across the crossing." Following the guidance provided by the FRA we reached out to the BNSF to determine if they would be willing to submit a joint petition with the City of Commerce City and Railroad Controls Limited. We have been informed that the BNSF did not wish to participate and has indicated that they intend to stay neutral during the petition process. On May 28, 2013 Railroad Controls Limited and the City of Commerce City, CO jointly submitted a petition to the FRA seeking relief from the requirement 5 in Appendix E. The waiver petition has hit the Federal Register and has been assigned the docket number FRA-2013-0058.

At this time we are requesting that your community send a supporting letter or supporting comments for our waiver petition to the FRA. If our waiver petition is granted we believe that some of the locations with the AHS will have to be modified slightly, by installing an updated software package. The updated software will allow the AHS to meet the waiver petition request. This will in effect add a few more seconds to the duration of the AHS sounding as the lead

locomotive has reached the railroad island circuit and allow for trains traveling at speeds of 15 MPH or higher to have the AHS continue to sound until the lead locomotive has reached the far side of the roadway. To submit a letter of support or provide supportive comments please go to the following address: <http://www.regulations.gov/#!docketDetail;D=FRA-2013-0058> then click on the “**Comment Now**” button directly to the left of the waiver request entitled, “**USDOT/FRA – City of Commerce, CO Waiver Request**”. If you have any questions, or would like to see a complete copy of our waiver request, please do not hesitate to contact me at (817) 820-6347.

Best regards,

QUIET ZONE TECHNOLOGIES, LLC

A handwritten signature in black ink, appearing to read 'R. Albritton', with a stylized flourish at the end.

Robert Albritton
CEO

