

Weschler Instruments

Division of Hughes Corporation 4000 NW 1212 Ave Corel Springs, FL 33065

January 17, 2019

U.S. Nuclear Regulatory Commission NRC Operations Center Fax: (301) 816-5151

Subject: 10 CFR Part 21 Notification of a potential defect in Weschler KX-241 axial, VX-252 and VC-252 instrument models.

## Dear Sirs,

Pursuant to the requirements of 10 CFR Part 21, this letter is hereby provided as notification of a condition that was detected during the process of manufacturing the commercial form of the subject instruments. Notification has been extended to the subject instruments intended for nuclear non-safety and safety applications because the same parts — though more carefully screened — are used in their production. This condition could result in the instrument's inability to perform its safety related function, which is accurate indication of a measured process. The symptom of this inability to perform its safety related function is changing indication, which is not accurately reflective of the monitored process. This symptom may exhibit as a wandering indication or difficulty in maintaining a stable zero scale setting.

The condition is due to a dimension of a component of the assembly being beyond lower tolerance limits. The part, known as an insulating bushing, is part number 186N051H01. It is used as one of two anchor and centering points for the part of the instrument that the pointer is attached to. This part is referred to as the moving element. The bushing is a nylon material that also provides electrical insulation between the moving element and its mounting frame.

The bushing is mechanically staked into the lower frame and the lower zero adjuster assembly is threaded into it. The issue that this notification addresses involves the adequacy of the mechanical stake, due to an undersized OD dimension of the bushing. This undersize may allow the bushing to rock, rotate or otherwise become adrift from its mounting. This could result in the moving element becoming misaligned, causing the pointer to stick in an on-scale position or drift about the actual measured process value indeterminately.

The subject instrument models are and have been sold as commercial, nuclear designated and nuclear safety related.

The affected production period is from August 15, 2018 when the non-compliant bushings were received from the supplier through January 11, 2019, when the condition was discovered by production personnel.

Actions are being taken to address the defect.

- The non-conforming bushings and assemblies made from them have been segregated from current production and conforming bushings supplied by the vendor from a previous lot-overrun have been introduced.
- An initial analysis of the movement of bushings through inventory suggests that non-conforming bushings may not have been used on safety related instruments, or were used in a quantity of less than 10 units. We

do know the Identity of those customers and will notify them if our detailed analysis indicates that the non-conforming bushings were used in their apparatus.

- Some nuclear designated instruments with the non-conforming bushings have likely been supplied to third
  party commercial dedication activities and may find their way into the pipeline as nuclear safety related
  instrumentation. Nuclear designated instruments are those which undergo enhanced surveillance during the
  production process. We know the identities of those customers and will notify them if our detailed analysis
  indicates that the non-conforming bushings were used in their apparatus.
- We have sold the subject instruments as commercial grade to various entities, some of which are, or are
  likely to be, commercial grade dedication activities. Depending upon the activity's dedication plan, the nonconformance may not be detected in their testing. It is expected that if a unit with the non-conforming
  bushing is seismically tested, that the symptoms of the non-conformance will be exhibited.

Weschler does not have the necessary information to analyze the potential safety hazard, since it does not have all details of where and how the instruments are used in their ultimate application. The potential safety hazard should be analyzed by the licensee(s) with respect to the instrument's described loss of safety function; the in-plant use of the equipment and plant procedures.

At the conclusion of Weschler's analysis, any customer impacted by this issue will be notified and the U.S. Nuclear Regulatory Commission will be updated.

If you have any questions related to this information please contact:

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Sincerely,

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