**CHAPTER 20:10:39**

**STRAY ELECTRICAL CURRENT AND VOLTAGE REMEDIATION RULES**

# Section

20:10:39:01 Definitions.

20:10:39:02 Purpose of rules - Conformance to electrical codes.

20:10:39:03 Measurement and testing by utility.

20:10:39:04 Notice to utility.

20:10:39:05 Cooperation between the dairy and utility.

20:10:39:06 Service provider.

20:10:39:07 Qualified testing professional.

20:10:39:08 Qualified testing analyst.

20:10:39:09 Additional qualified testing professional or analyst.

20:10:39:10 General requirements for stray voltage measuring and recording.

20:10:39:11 Calibration of measuring equipment.

20:10:39:12 Calibration certificates.

20:10:39:13 Field check of measuring equipment.

20:10:39:14 Requirements for monitoring systems and recording devices.

20:10:39:15 Requirements for load boxes.

20:10:39:16 Stray current or voltage test.

20:10:39:17 Testing sequence.

20:10:39:18 Preventive action level not exceeded.

20:10:39:19 Preventive action level exceeded.

20:10:39:20 Report prepared by qualified analyst.

20:10:39:21 Suspended or limited testing.

20:10:39:22 Use of remote reference electrodes.

20:10:39:23 Inspection, repair, and measurement requirements.

20:10:39:24 Use of ammeters.

20:10:39:25 Pre-test documentation.

20:10:39:26 Suspension of testing due to presence of a safety hazard.

20:10:39:27 The cow contact test.

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20:10:39:29 Use of a voltmeter to conduct the cow contact test.

20:10:39:30 Use of a milliammeter to conduct the cow contact test.

20:10:39:31 Metal plate requirements.

20:10:39:32 Recording the cow contact test data.

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20:10:39:34 The 48 hour test.

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20:10:39:36 Measurement requirements for the 48 hour test.

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20:10:39:44 Data collection for the secondary neutral voltage drop test.

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20:10:39:47 The load box test.

20:10:39:48 Timing of the load box test.

20:10:39:49 Conducting the load box test.

20:10:39:50 Data collection for the load box test.

20:10:39:51 Calculating the K factor for the load box test.

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20:10:39:53 The signature test.

20:10:39:54 Data collection for the signature test.

20:10:39:55 Recording the signature test data.

20:10:39:56 Analysis of the data collected during the tests.

20:10:39:57 Determination of any contributions to stray current or voltage for single phase dairies.

20:10:39:58 Determination of any contributions to stray current or voltage for three-phase dairies.

20:10:39:59 Written report required - Copy to the dairy producer.

20:10:39:60 Remediation.