U.S. DEPARTMENT OF ENERGY - BONNEVILLE POWER ADMINISTRATION

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ENGINEERING AND TECHNICAL SERVICES REPORT

TITLE	DATE	REPORT NO.
NARDALERT S3: SIMULTANEOUS 60 HZ AND VHF ELECTRICAL FIELD EXPOSURE	June 19, 2012	TEST-12-082
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SUMMARY:

The Nardalert S3 RF Personal Monitor is a battery-powered monitoring device that detects harmful levels of high-frequency radio waves. At BPA, the monitor is typically worn by workers while working near a cell phone or microwave antenna. Some previous RF personal monitors produced false alarms in the presence of strong 60 Hz fields produced by power lines. Therefore, BPA requires that monitors be tested to verify that they are immune to the low frequency fields. This test is commonly referred to as the 'ELF' test.

Previous testing (see report TEST-12-073) established that a strong 60 Hz field would not cause false alarms. However, the test did not demonstrate that the monitor will properly detect harmful RF fields in the presence of a strong 60 Hz field. The test was repeated to verify proper operation while exposed to a 100 kV/m 60 Hz field.

Figure 1 – Nardalert S3 Personal RF Monitor.

The Nardalert S3 properly detected harmful levels of RF while simultaneously exposed to a 100 kV/m 60 Hz electric field.

DESCRIPTORS:

NARDALERT, PERSONAL RF MONITOR, ELECTRIC FIELD

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