



Division of Public Health

State of Nebraska

Dave Heineman, Governor

The following is being distributed for NETC by the Nebraska Health Alert Network because of the potential for disruption of medical devices in hospitals and other health care facilities. Please copy this notice and distribute to the appropriate individuals in your organization.

July 31, 2008

The Nebraska Educational Telecommunications Commission's digital television stations will begin full time transmissions between September 2008 and February 2009. After February 17, 2009 NET transmitting facilities will be operating full time and at full power. This letter is to notify health care facilities in NET's coverage areas in the event that any electronic medical devices are affected by the radio-frequency (RF) field emitted by transmitted NET signals.

NET is making a good faith effort to identify and notify health care facilities (e.g., hospitals, nursing homes, see 47 CFR 15 .242(a) (1)) within our service area potentially affected by our DTV operations. We are interested in fully cooperating with health care facilities to afford a reasonable opportunity to resolve any interference problems.

Should any interference by these services occur to any electronic medical device be noted, please advise NETC. The address and telephone number for NETC is:

*Nebraska Educational Telecommunications Commission
1800 North 33rd Street
Lincoln, NE 68501
Phone: 402-472-9333 ext 483*

Please consider using the resources listed in the attached document to assist you in assuring a smooth transition for your medical facility.

Your cooperation is appreciated!

Roger Book
Engineering Director of Transmissions

Interference Between Digital TV Transmissions and Medical Systems

Purpose of this Advisory

FDA is aware of incidents involving digital television (DTV) transmissions interfering with medical systems that use or are affected by TV transmissions. The purpose of this Advisory is to alert you to the potential for this problem and provide recommendations for your facility.

Many medical telemetry devices are operated under 47 CFR Part 15 of the FCC regulations. These devices are secondary users of the radio-frequency (RF) spectrum. Licensed users such as television stations are the primary users. As a secondary user, your telemetry devices may be subject to interference from the primary user at any time. If your telemetry devices are operating on frequencies licensed to a primary user, you need to be aware of the potential for interference and take any steps necessary to avoid device malfunctions due to interference. In addition there may be other devices related to medical procedures and monitoring that could potentially be affected by DTV emissions.

While digital television has been in operation throughout the United States for some time, in the next few months DTV stations will begin transmitting signals on a full time basis.

Recommendations

To address potential interference problems for medical telemetry systems, FDA recommends that you work with the manufacturer of your telemetry systems to:

- determine the channel/frequencies your telemetry systems use; and
- consult the FCC table of allotments for DTV channels that will be coming on line in your area.

If your telemetry systems are transmitting on channels that are scheduled to be used by a local station, you should work with the manufacturer of your telemetry systems to change your telemetry channels to unused channels prior to the expected broadcast date to avoid interference.

If you find that your telemetry systems are transmitting on channels that will remain unused, you should not have a problem due to DTV transmissions. However, you should periodically check the FCC allotments to assure that those channels remain available.

Reporting Adverse Events to FDA

The Safe Medical Devices Act of 1990 (SMDA) requires hospitals and other user facilities to report deaths and serious illnesses and injuries associated with the use of medical devices. Thus, if interference with a medical device results in a death or serious injury, it must be reported. We request that you follow the procedures established by your facility for such mandatory reporting.

If a telemetry system fails to function due to electromagnetic interference or any other reason, it is a device malfunction. Such malfunctions should be reported to the manufacturer or can be reported directly to MedWatch, the FDA's voluntary reporting program. Submit these reports to MedWatch: by telephone at 1-800-FDA-1088, by FAX at 1-800-FDA-0178, or by mail to MedWatch, Food and Drug Administration, HF-2, 5600 Fishers Lane, Rockville, MD 20857.

Getting More Information

If you have any questions regarding this Advisory which are related to FDA issues, please contact Nancy Pressly, CDRH, Office of Surveillance and Biometrics, HFZ-510, 1350 Piccard Drive, Rockville, MD 20850, FAX 301-594-2968, or e-mail nap@cdrh.fda.gov.

For additional information regarding FCC issues, please contact Julius P. Knapp, FCC, Office of Engineering and Technology, 1919 M Street, NW, Washington, D.C., 20554, FAX 202-418-1944, or e-mail jknapp@fcc.gov.

Further information regarding electromagnetic interference and medical devices can be found on the FDA EMC webpage at www.fda.gov/cdrh/emc/index.html.

Digital Stations planned by Nebraska Educational Telecommunications

It's possible certain medical devices could be affected by one or more of these stations in your area.

<p><u>KHNE-DT Hastings</u> [Currently Operating]</p> <p>Geographic Coordinates: 40-46'20 N / 98-5'21 W Channel: 28 Elevation: 552 m AMSL Effective ERP: 200 kW Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground:368m</p>	<p><u>KTNE-DT Alliance</u> [October 2008]</p> <p>Geographic Coordinates: 41-50'27 N / 103-3'18 W Channel: 13 Elevation: 1296 m AMSL Effective ERP: 17.5 kW Non-Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground: 437.6m</p>
<p><u>KLNE-DT Lexington</u> [Currently Operating]</p> <p>Geographic Coordinates: 40-23'5 N / 99-27'30 W Channel: 26 Elevation: 726.9 m AMSL Effective ERP: 375 kW Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground: 315.5m</p>	<p><u>KUON DT Lincoln</u> [October 2008]</p> <p>Geographic Coordinates: 41-8'18 N / 96-27'20 W Channel: 12 Elevation: 358.4 m AMSL Effective ERP: 75 kW Non-Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground: 250m</p>
<p><u>KMNE-DT Bassett</u> [September 2008]</p> <p>Geographic Coordinates: 42-20'5 N / 99-29'2 W Channel: 7 Elevation: 770.5 m AMSL Effective ERP: 27 kW Non-Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground: 449m</p>	<p><u>KXNE-DT Norfolk</u> [November 2008]</p> <p>Geographic Coordinates: 42-14'15 N / 97-16'41 W Channel: 19 Elevation: 544.4 m AMSL Effective ERP: 500 kW Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground: 297m</p>
<p><u>KPNE North Platte</u> [October 2008]</p> <p>Geographic Coordinates: 41-1'22 N / 101-9'14 W Channel: 9 Elevation: 978.1 m AMSL Effective ERP: 85 kW Non-Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground: 317.5m</p>	<p><u>KYNE-DT Omaha</u> [Currently Operating]</p> <p>Geographic Coordinates: 41-15'28 N / 96-0'32 W Channel: 17 Elevation: 350.8 m AMSL Effective ERP: 200 kW Non-Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground: 100.2m</p>
<p><u>KRNE-DT Merriman</u> [October 2008]</p> <p>Geographic Coordinates: 42-40'37 N / 101-42'39 W Channel: 12 Elevation: 1079 m AMSL Effective ERP: 75 kW Non-Directional Antenna Antenna Polarization: Horizontal Radiation center-above ground: 298m</p>	