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NOTICE OF EXEMPTION

Certain High-frequency Portable or Mobile X-ray Machines

The Department of Licensing and Regulatory Affairs hereby authorizes an exemption from the 100 milliamperere (mA) requirement, R 333.5325(16) of the *Ionizing Radiation Rules Governing the Use of Radiation Machines* of the Michigan Administrative Code, to high-frequency mobile x-ray machines used on patients in nursing homes, receiving home health care, or infants in neonatal intensive care units.

R 333.5325(16) and its rescinded predecessor rule, R 325.5325(16) prohibit machines whose average electrical current is less than 100 mA from being used for general radiography. Lower-output single-phase x-ray machines, used at the time the rule was promulgated (December 1975), required the higher current in order to shorten exposure times and minimize patient motion during chest radiography, particularly heart induced motion. For expediency, the Department did not change the contents of this rule in the May 2016 promulgation of the machine-only rule set. A full reworking of the medical radiography rules is planned. In the meantime, the Department is reauthorizing the exemption for the modalities indicated.

In order to ensure exempted mobile machines are capable of sufficiently high outputs to limit patient motion, the Department requires that the following conditions be met:

- The radiation output shall be at least 75 milliroentgens (mR) per second at 80 kilovolts-peak (kVp) and 40 inches from the tube target.
- The maximum current-time product capacity shall be at least 50 milliamperere-seconds (mAs) at 80 kVp.

The scope of this exemption from R 333.5325(16) is limited to general radiography performed on patients in nursing homes, receiving home health care, or infants in neonatal intensive care units.

The Department concludes that the use of these high-frequency portable or mobile x-ray machines in the exempted situations will not result in undue hazard to public health and safety. This exemption is authorized under R 333.5015 and is effective immediately.

Barton G. Pickelman, CIH, Acting Director
Michigan Occupational Safety and Health Administration

6-8-16

Date