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INFORMATION NOTICE NUMBER 2006-04

Date: September 18, 2006

To: All Ohio Portable Gauge Licensees

Subject: Proposed Changes to Rule 3701:1-40-16 of the Administrative Code

The Ohio Department of Health, Bureau of Radiation Protection (Bureau) has proposed an addition to rule 3701:1-40-16 of the Administrative Code. The proposed change to the rule requires portable gauge users to use a minimum of two independent physical controls to secure portable gauges from unauthorized removal. The proposed change will enhance the security of these gauges and make Ohio rules consistent with federal regulations.

The text for the proposed addition is as follows:

“(H) Each portable gauge licensee shall use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.”

Note that the Bureau interprets “control and constant surveillance” of portable gauges to mean being immediately present or remaining in close proximity to the portable gauge so as to be able to prevent unauthorized access to or removal of the portable gauge.

To assist portable gauge licensees with an understanding of appropriate barrier methods, the Bureau is including with this Information Notice a copy of the “Security Procedures” issued by the US Nuclear Regulatory Commission (NRC) to its portable gauge licensees. This guidance describes acceptable measures for complying with the NRC’s equivalent to Ohio’s proposed rule 3701:1-40-16 (H). The Bureau is in agreement with this guidance with the understanding that any references to the NRC or federal regulations should be changed to refer to the Ohio Department of Health and applicable Ohio regulations.

Please review this proposed change, which is available on the Ohio Department of Health (ODH) web-site at <http://www.odh.ohio.gov/rules/drafts>, and provide any comments that you may have to the ODH Bureau of Radiation Protection at Bradiation@odh.ohio.gov by October 6, 2006. Comments that are received will be forwarded to the Radioactive Materials Committee of the Radiation Advisory Council for consideration. Following this action, the proposed rule will then move through the formal adoption process via the Public Health Council. Questions regarding this proposed change may be directed to Stephen James, Supervisor, Industrial Licensing and Inspection at (614) 644-2727.

Attachment: NRC issued document “Security Procedures”, pages 5 - 9

Security Procedures

NRC regulations require a portable gauge licensee to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever the portable gauge is not under the control and constant surveillance by the licensee.

Note: The NRC staff interprets "control and maintain constant surveillance" of portable gauges to mean being immediately present or remaining in close proximity to the portable gauge so as to be able to prevent unauthorized removal of the portable gauge.

The objective of the security guidance is to reduce the opportunity for unauthorized removal and/or theft by providing a delay and deterrent mechanism. By following this guidance, it will become more difficult and time-consuming to defeat security measures.

The following security requirements apply to portable gauge licensees regardless of the location, situation, and activities involving the portable gauge. The security requirements apply to: (1) storage on vehicles; (2) storage at temporary facilities (e.g., residence, hotel, job site trailer); and (3) storage at permanent facilities. At all times, licensees are required to either maintain control and constant surveillance of the portable gauge when in use and, at a minimum, use two independent physical controls to secure the portable gauge from unauthorized removal while in storage. The physical controls used must be designed and constructed of materials suitable for securing the portable gauge from unauthorized removal, and both physical controls must be defeated in order for the portable gauge to be removed. The construction and design of the physical controls used must be such that they will deter theft by requiring a more determined effort to remove the portable gauge.

The security procedures used must ensure that the two physical barriers chosen clearly increase the deterrence value over that of a single barrier and the two physical barriers would make unauthorized removal of the portable gauge more difficult.

Using two chains is not the preferred method. To provide adequate security licensees are encouraged to use other combinations. The security rule permits the usage of two chains under certain circumstances in order to allow licensees flexibility; however, having two chains with locks would not satisfy the NRC's requirement unless **each** chain and lock combination used is physically robust enough to provide **both** a deterrence, and a reasonable delay mechanism. When two chains or cables are used, the second chain or cable should be substantially more robust and more difficult to cut than the first chain or cable.

If possible, the licensee should consider storing their portable gauges inside a locked facility or other non-portable structure overnight, instead of storage in a vehicle.

As long as the licensee maintains constant control and surveillance while transporting the portable gauges, the licensee need only to comply with the DOT requirements for transportation (e.g., placarding, labeling, shipping papers, blocking and bracing). However, if the licensee leaves the vehicle and portable gauge unattended (e.g., while visiting a gas station, restaurant, store), the licensee needs to ensure that the portable gauge is secured by two independent controls in order to comply with the requirements of 10 CFR Part 30.34(i)

While transporting a portable gauge, a licensee should not modify the transportation case if it is being used as the Type A container for transporting the device. This includes, but is not limited to, drilling holes to mount the case to the vehicle or to mount brackets or other devices used for securing the case to the vehicle. In order to maintain its approval as a Type A shipping container, the modified package must be re-evaluated by any of the methods described in 49 CFR Part 178.350 or 173.461(a). The re-evaluation must be documented and maintained on file in accordance with DOT regulations.

Physical controls used may include, but are not limited to, a metal chain with a lock, a steel cable with a lock, a secured enclosure, a locked tool box, a locked camper, a locked trailer, a locked trunk of a car, inside a locked vehicle, a locked shelter, a secured fenced-in area, a locked garage, a locked non-portable cabinet, a locked room, or a secured building. To assist licensees, some common scenarios are illustrated and examples of two independent physical controls are provided below.

Securing a Portable Gauge at a Licensed Facility

Long term storage of a portable gauge is usually at a permanent facility listed in the license or license application. Routine storage of a portable gauge in a vehicle or at temporary or permanent residential quarters is usually reviewed and may be authorized by NRC or the applicable Agreement State during the licensing process. In accordance with NRC security regulations, when a portable gauge is stored at a licensed facility, the licensee would be specifically required to use a minimum of two independent physical controls to secure the gauge.

Examples of two independent physical controls used by to secure a portable gauge when stored at a licensed facility are --

1. The portable gauge or transportation case containing the portable gauge is stored inside a locked storage shed within a secured outdoor area, such as a fenced parking area with a locked gate;
2. The portable gauge or transportation case containing the portable gauge is stored in a room with a locked door within a secured building for which the licensee controls access by lock and key or by a security guard;
3. The portable gauge or transportation case containing the portable gauge is stored inside a locked, non-portable cabinet inside a room with a locked door, if the building is not secured;
4. The portable gauge or transportation case containing the portable gauge is stored in a separate secured area inside a secured mini-warehouse or storage facility; or
5. The portable gauge or transportation case containing the portable gauge is physically secured to the inside structure of a secured mini-warehouse or storage facility.

Securing a Portable Gauge in a Vehicle

Regulations in 10 CFR Part 71 requires that licensees who transport licensed material, or who may offer such material to a carrier for transport, must comply with the applicable requirements of the United States Department of Transportation (DOT) that are found in 49 CFR Parts 170 through 189.

Licensees commonly uses a chain and a padlock to secure a portable gauge in its transportation case to the open bed of a pickup truck while we are using the vehicle for storage. Because the transportation case is portable, a theft could

occur if the chain is cut and the transportation case with the portable gauge in it is taken. If the licensee simply loops the chain through the handles of the transportation case, a thief could open the transportation case and take the portable gauge without removing the chain or the case. Similarly, because the transportation case is also portable, it must be protected by two independent physical controls if the portable gauge is inside. A lock on the transportation case, or a lock on the portable gauge source rod handle is not sufficient because both the case and the gauge are portable.

A vehicle may be used for storage, however, it is recommended by NRC and DOT that this practice only be used for short periods of time or when a portable gauge is in transit. A portable gauge should only be kept in a vehicle overnight if it is not practicable to provide temporary storage in a permanent structure. When a portable gauge is being stored in a vehicle, the licensee is specifically required to use a minimum of two independent physical controls to secure the portable gauge.

Examples of two such independent physical controls approved by NRC to secure portable gauges in this situation are --

1. The locked transportation case containing the portable gauge is physically secured to a vehicle with brackets, and a chain or steel cable (attached to the vehicle) is wrapped around the transportation case such that the case can not be opened unless the chain or cable is removed. In this example, the locked transportation case would count as one control because the brackets would prevent easy removal of the case. The chain or cable looped only through the transportation case handle is not acceptable;
2. The portable gauge or transportation case containing the portable gauge is stored in a box physically attached to a vehicle, and the box is secured with (1) two independent locks; (2) two separate chains or steel cables attached independently to the vehicle in such a manner that the box cannot be opened without the removal of the chains or cables; or (3) one lock and one chain or steel cable is attached to the vehicle in such a manner that the box cannot be opened without the removal of the chain or cable; or
3. The portable gauge or transportation case containing the portable gauge is stored in a locked trunk, camper shell, van, or other similar enclosure and is physically secured to the vehicle by a chain or steel cable in such a manner that one would not be able to open the case or remove the portable gauge without removal of the chain or cable.

Securing a Portable Gauge at a Temporary Jobsite or at Locations Other Than

a Licensed Facility

When a job conducted requires storage of a portable gauge at a temporary jobsite or at a location other than a licensed facility, the licensee should use a permanent structure for storage, if practicable to do so. When storing a portable gauge in temporary or permanent residential quarters, the licensee should limit access by storing the gauge in a separate room away from residents and other members of the public. The licensee must also meet the radiation exposure limits specified in 10 CFR Part 20. When a portable gauge is stored at a temporary jobsite or at a location other than an authorized facility, the licensee is required to use a minimum of two independent physical controls to secure the portable gauge.

Examples of two independent physical controls to secure portable gauges at these locations are --

1. At a temporary job site, the portable gauge or transportation case containing the portable gauge is stored inside a locked building or in a locked non-portable structure (e.g., construction trailer, sea container, etc.), and is physically secured by a chain or steel cable to a non-portable structure in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable. A lock on the transportation case or a lock on the portable gauge source rod handle would not be sufficient because the case and the gauge/portable gauge are portable;
2. The portable gauge or transportation case containing the portable gauge is stored inside a locked room within temporary or permanent residential quarters, and is physically secured by a chain or steel cable to a permanent or non-portable structure (e.g., large metal drain pipe, support column, etc.) such that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable;
3. The portable gauge or transportation case containing the portable gauge is stored in a locked garage, and is within a locked vehicle or is physically secured by a chain or steel cable to the vehicle in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable; or
4. The portable gauge or transportation case containing the portable gauge is stored in a locked garage, and is within a locked enclosure or is physically secured by a chain or steel cable to a permanent or non-portable structure in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable.