

**EEI MEMORANDUM**

**TO:** All EEI Field Employees  
**FROM:** Ward McMasters  
**SUBJECT:** NUCLEAR DENSITY GAUGE POLICY CHANGES  
**DATE:** Monday, March 10, 2008

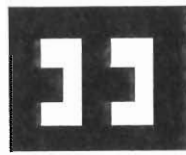
As many of you are aware, the NRC and the PA DEP visited three of EEI's Offices on February 27 and 28, 2008 for an inspection of our nuke gauge management program. In Pennsylvania, the NRC will hand over their jurisdiction to the PA DEP on March 30, 2008. The NRC wanted to verify that EEI and its employees are conforming to recent policy changes to the rules and regulations before they turn over control to the State. New Jersey will remain under NRC jurisdiction until at least August, 2009.

In a recent memo sent by the NRC on December 7, 2007, they determined that approximately 50 portable nuke gauges were stolen per year between 2001 and 2004. Unfortunately, only 50 percent of those stolen gauges were recovered. Furthermore, two-thirds of the of the stolen gauges were removed from vehicles. EEI has been fortunate enough not to have had a gauge stolen in that time period. However, it is clear that the NRC would like to reduce the possibility of a gauge being stolen from a vehicle by restricting the amount of days that individuals possess a gauge and specifically restricting the period in which gauges are stored in a vehicle at a residence. In the post 9/11 world that we currently live in, stricter policy changes are required company wide. Effective immediately, the following rules will be enforced:

1. Field Personnel can only maintain possession of a nuke gauge in their vehicle overnight for a maximum of 225 total days per year. This number was determined by keeping a gauge locked in your vehicle four (4) nights per week during the months of January, February, November and December. During the months of March through October, the gauge can be stored in your vehicle for five (5) nights per week for the possibility of Saturday work. This number was based on a total of 49 working weeks per year to account for vacation time, one (1) personal day and observed holidays. To meet this NRC requirement, all gauges will be required to be returned to the storage room over the weekend when not in use. Every employee will be responsible for checking their total throughout the year to verify that they have not exceeded the overnight storage limit. If you reach this limit before the end of the year, you will be required to store the gauge in a licensed location overnight and not in your vehicle until the end of the calendar year. When a gauge is returned to a licensed location, the gauge **MUST** be properly signed in the log book. Quarterly audits of overnight storage totals will be conducted to assist in the employees management of total days stored.

2. Nuke gauges that are stored in EEI employee vehicles must be locked to the vehicle such that there are two independent devices preventing the removal of the box and/or the gauge from your car, truck or SUV. An approved chain or steel cable is required to loop through the side of the box and be locked to your vehicle. The second barrier of protection is keeping your vehicle locked when the gauge is not being used. Individuals using a pick up truck must have two different sized chains locked through the two sides and top of the case such that the gauge can not be removed from the transportation case. Furthermore, a copy of the bill of lading should be left on the driver's seat of your locked vehicle when you are transporting a gauge.
3. A revised copy of the Bill of Lading has been sent to each office. Please remove the old bill of lading from your gauge and from your vehicle. A copy of the Bill of Lading must be within arm's reach of the driver while transporting a nuke gauge. It is recommended that this Bill of Lading be kept in the driver's door side compartment. If an emergency responder had to access your vehicle, the Bill of Lading must be clearly visible.
4. EEI employees are ***REQUIRED*** to wear the company issued dosimetry badges when using the nuke gauges. These badges serve to record the amount of radiation exposure to trained gauge users. Proper use of the gauge should yield low levels of dose exposure. The occupational dose records for gauge users needs to be maintained during employment at EEI. The badge should be either clipped to clothing in proximity to your vital organs or clipped to a lanyard hung around your neck. At the end of each quarter, the dosimetry badge must be returned to your office and given to your direct supervisor. If a dosimetry badge is lost by an employee, then a form must be filled out by the individual acknowledging the lost badge. A copy of this form is attached to this memo.

The policy changes stated in this memo must be understood and implemented immediately by all divisions. The intent of these policy changes are to provide further protection to the security of the gauges and to the individuals using them. Failure to implement these policy changes could result in disciplinary action to uncooperative individuals. Each gauge user is responsible for maintaining constant control and surveillance of their portable device in the field and in your vehicle.



# EARTH ENGINEERING INCORPORATED

*Geotechnical Engineers & Geologists*

## **ACKNOWLEDGMENT OF A LOST DOSIMETRY**

EEl provides quarterly dosimetry badges for each employee who operates nuclear moisture density gauges. If you lose your dosimetry badge during a given quarter, EEl has been instructed by the NRC to assign dosage for the missing badge. The average of the previous two quarters will be used to assign the dosage for the lost quarter. Your assigned dosage is expected to be minimal, therefore, your lifetime equivalency should not change. By signing this form, you are accepting the assigned dosage rate for a given quarter covered by the lost badge.

I \_\_\_\_\_ lost my dosimetry badge for the quarter between \_\_\_\_\_  
and \_\_\_\_\_.

EEl Division: \_\_\_\_\_

Your Signed Name: \_\_\_\_\_

EEl Manager: \_\_\_\_\_

G:\MEMO\NRC memos\EEl POLICY CHANGES REGARDING NUKE GAUGES.wpd

*Corporate Headquarters*  
115W Germantown Pike, Suite 200  
East Norriton, PA 19401  
(610)277-0880 FAX 277-0878

*Southern New Jersey*  
403 Commerce Lane  
West Berlin, NJ 08091  
(856)768-1001 FAX 768-1144

*Central Pennsylvania*  
5010 Ritter Road, Suite 116  
Mechanicsburg, PA 17055  
(717)697-5701 FAX 697-5702

*Lehigh Valley*  
149 Main Street  
Emmaus, PA 18049  
(610)967-4540 FAX 967-4488

[www.earthengineering.com](http://www.earthengineering.com)

[eei@earthengineering.com](mailto:eei@earthengineering.com)