

*Jan*

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

1. LICENSEE/LOCATION INSPECTED: Thermal Engineering International Utility Products Division P. O. Box 1385 Joplin, MO 64801		2. NRC/REGIONAL OFFICE U.S. Nuclear Regulatory Commission Region III 2443 Warrenville Road Lisle, Illinois 60532-4351	
REPORT                    2006-001			
3. DOCKET NUMBER(S) 030-17798	4. LICENSEE NUMBER(S) 24-19500-01	5. DATE(S) OF INSPECTION March 9, 2006	

**LICENSEE:**  
 The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection:

1. Based on the inspection findings, no violations were identified.

2. Previous violation(s) closed.

3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, NURE 3-1600, to exercise discretion, were satisfied.

\_\_\_\_\_ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):

\_\_\_\_\_

4. During this inspection certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

(Violations and Corrective Actions)

\_\_\_\_\_

**Licensee's Statement of Corrective Actions for Item 4, above.**

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

Title	Printed Name	Signature	Date
LICENSEE'S REPRESENTATIVE			
NRC INSPECTOR	Deborah A. Piskura	<i>Deborah A. Piskura</i>	3/9/06

*Docket File Information*

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AND COMPLIANCE INSPECTION**

1. LICENSEE <b>Thermal Engineering International</b> REPORT NUMBER(S) 2006-001		2. NRC/REGIONAL OFFICE <b>Region III</b> <b>2443 Warrenville Road, Suite 210</b> <b>Lisle, IL 60532</b>	
3. DOCKET NUMBER(S) 030-17798	4. LICENSE NUMBER(S) 24-19500-01	5. DATE(S) OF INSPECTION Mar. 9, 2006	
6. INSPECTION PROCEDURES USED 87121		7. INSPECTION FOCUS AREAS 03.01, 03.02, 03.03, 03.04, 03.05, 03.06, and 03.07	

**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM 03320	2. PRIORITY C 1	3. LICENSEE CONTACT Wes Endicott, RSO	4. TELEPHONE NUMBER 417.782.5080
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Main Office Inspection      Next Inspection Date: Mar. 2007

Field \_\_\_\_\_

Temporary Job Site \_\_\_\_\_

**PROGRAM SCOPE**

The licensee manufactured large vessels for the electric power industry and employed 150 individuals at its Joplin plant. The vessels were radiographed by 4 radiographers and one assistant, who utilized two exposure devices containing nominal iridium-192 and cobalt-60 sources. Typical workload for the radiography program was 200+ shots per week, each shot lasting a few minutes. Radiography was conducted daily within the licensee's building on the shop floor or within the constructed "vault" (not an approved permanent radiographic installation (PRI)). All radiographic activities, including those performed within the vault, were performed as if the work were conducted at a temporary job site (roped off areas, postings/signs, 2-man crew, constant surveillance, etc.).

This inspection included direct observations of radiographic operations (performed by a two-man crew) within the exposure vault. The radiographers set up the exposure cell for several radiographs using the Ir-192 source. The inspector performed radiation surveys around the outside perimeter of the exposure vault and surrounding areas on the shop floor. The inspector observed the radiographers as they entered the vault and conducted radiation surveys of the camera and guide tube. The inspector also observed each radiographer's use of safety equipment (survey instrument, film badge, pocket dosimeter, alarming rate meter).

The maximum whole body radiation exposure for 2005 was recorded as 23 millirem. The year-to-date 2006 maximum exposure was recorded as "minimum."