



**Docket File Information**  
**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

1. LICENSEE/LOCATION INSPECTED:  Thermal Engineering International Utility Products Division 2702 W. 9th Street Joplin, MO 64801  REPORT NUMBER(S) 2018001	2. NRC/REGIONAL OFFICE  Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352
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3. DOCKET NUMBER(S)  030-17798	4. LICENSE NUMBER(S)  24-19500-01	5. DATE(S) OF INSPECTION  October 16, 2018
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6. INSPECTION PROCEDURES USED  87121	7. INSPECTION FOCUS AREAS  All
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**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM CODE(S)  3320	2. PRIORITY  1	3. LICENSEE CONTACT  Nick Darnell	4. TELEPHONE NUMBER  (417) 782-5080
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Main Office Inspection                      Next Inspection Date:                      10/16/2019

Field Office Inspection \_\_\_\_\_

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

**PROGRAM SCOPE**

This was a routine, unannounced inspection of a licensee authorized to conduct industrial radiography in a permanent radiographic installation (PRI) at their facility in Joplin, Missouri, and at temporary job sites under NRC jurisdiction. The licensee manufactured large industrial feed water heaters, condensers, and heat exchangers, and utilized gamma radiography equipment to verify the quality of welds. The licensee had one PRI where the majority of radiography was performed. For manufactured product that would not fit in the PRI, the licensee would establish a temporary job site within their facility in Joplin. The licensee was staffed by a radiation safety officer (RSO)/radiographer, one other radiographer, and two assistant radiographers.

**PERFORMANCE OBSERVATIONS**

The inspector toured the facility and the PRI, and interviewed the RSO and a radiographer. The inspector also observed a radiographer conduct exposures of several welds in the PRI. The inspector noted that the radiographer used appropriate dosimetry including a whole body badge, and a properly calibrated pocket ion chamber (PIC) and alarming rate dosimeter. The radiographer demonstrated functioning audible/visible alarming systems in the PRI, and the use of a properly calibrated survey meter which he used to verify that the source had returned to a safe, shielded position after each exposure. Using a calibrated Canberra model RadEyeG gamma survey meter, the inspector performed independent surveys alongside the radiographer as he conducted the post-exposure surveys of the radiographic equipment.

The inspector reviewed a selection of records pertaining to the radiation protection program including personal dosimetry, calibration of PIC's and survey meters, sealed source leak tests, physical inventory, and visual and operability checks of equipment before each use,

The inspector performed an independent survey of unrestricted areas directly adjacent to the radiography camera storage room. Radiation levels ranged from 0.6 mrem/hr - 1.2 mrem/hr.

No violations or NRC requirements were identified.