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July 11, 2012

Director  
Office of Federal and State Materials and Environmental Management Programs  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: Inability to retract source to a safe shielded position  
Materials License No. 50-27667-01

To Whom It May Concern,

On July 1st, 2012 at 11:45 pm, a radiography crew using remote access technology at the Kuparuk Oil Field on the North Slope of Alaska had the jig, collimator and guide tube dislodge and fall while cranking out the source. With the added weight of the connected jig and collimator, the guide tube ended up hanging straight down 30 feet above a platform floor, creating a sharp bend where the guide tube connects to the camera. The crew was not able to retract the source immediately after the accident. Kakivik's onsite Radiation Safety Supervisor and the RSO were immediately notified. The 2 mR/hr boundary was re-surveyed and adjusted. Constant surveillance and control of the boundary was maintained. Per guidance from the Kakivik's emergency procedures and RSO, the exposure device was to be lowered by ropes onto a suitable working surface. During the camera decent, the guide tube came in contact with piping and was straightened sufficiently to allow the source to be safely cranked into the fully shielded and secured position while still suspended from the ropes. The source was fully shielded within the exposure device by 2:13 am July 2nd. The operation to lower the camera to straighten the guide tube and crank in the source to the fully shielded position took approximately one minute. No exposure to the public or overexposure to Kakivik employees or unauthorized entry into the restricted area was made. All the radiographic equipment was inspected after the accident. The ball connector at the end of the crank drive cable was bent and was replaced. The outside of the guide tube was damaged and taken out of service. The camera including the source pigtail connector was not damaged and was returned to service.

The remaining facts of the accident are as follows:

Exposure Device: QSA Sentinel 880D  
Device S/N: D8468  
Source Model: A424-9  
Source S/N: 82365B  
Source Activity at time of accident: 82.1 Ci

Personnel Involved In Incident:

Initial Radiography Crew-

Stuart Grant- Radiographer, assisted with boundary during incident, total dosage received for the whole day 28 mR

Cliff Sheehan- Radiographer, assisted with boundary during incident, total dosage received for the whole day 18 mR

Source Retrieval Team-

Allen Sanders- Corporate RSO, authorized by license, no dosage from incident

Patton Pettijohn- RSO and Source Retrieval Trained, authorized by Allen Sanders, no dosage from incident

Mike Barnes- RSS, Source Retrieval Trained, authorized by Allen Sanders, dosage from incident- 3mR

Gary Smith- Radiographer, Foreman, Source Retrieval Trained, authorized and personally supervised by Mike Barnes, dosage from incident- 7mR

Matt Murray- Radiographer, Foreman, Source Retrieval Trained, authorized and personally supervised by Mike Barnes, dosage from incident- 6mR

Patrick Rowe- Radiographer, authorized and personally supervised by Mike Barnes, dosage from incident- 1 mR

Mike Bryan- Radiographer, authorized and personally supervised by Mike Barnes, dosage from incident-10 mR

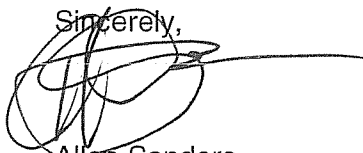
Matt Abbott- Radiographer, authorized and personally supervised by Mike Barnes, dosage from incident- 9 mR

After investigation, the cause of the incident was determined to be the improper use of a magnetic jig that was attached to a surface that did not have sufficient force to hold the combined weight of jig, collimator, guide tube and source.

The corrective actions taken to prevent recurrence included writing a company policy that clearly states that a radiographer may not use magnetic jigs to support the guide tube and collimator unless it is also supported with ratchet straps or a chain wrench or unless the magnetic jig is being used on a flat steel floor surface. This policy will be required to be read and adhered to by all current and new radiographers. This incident will be reviewed with all the Kakivik radiographers and assistants by the RSO or RSS.

If there are further questions or information required, please feel free to contact me or Patton Pettijohn.

Sincerely,

A handwritten signature in black ink, appearing to be 'Allen Sanders', with a long horizontal line extending to the right.

Allen Sanders  
Kakivik Asset Management RSO

cc: NRC correspondence file

cc: USNRC Region IV