

# INES Event Rating Form

<b>Event Title:</b>	Exposure of a candidate radiographer in excess of dose constraint
<b>Date of Event:</b>	14 August 2012
<b>Event Location / Facility Name:</b>	Ptuj, TEMAT d.o.o., Laboratory for X-Ray radiography
<b>Event Country:</b>	Slovenia
<b>Type of Event:</b>	Irradiation facility

<b>INES Rating:</b>	1
<b>Status of Rating:</b>	Final
<b>Date of Rating:</b>	22 November 2012

<b>Impact on People and Environment</b>		
<i>Release beyond authorized limits?</i>	<input type="checkbox"/>	
<i>Overexposure of a member of the public?</i>	<input type="checkbox"/>	
<i>Overexposure of a worker?</i>	<input type="checkbox"/>	
<b>Impact on the Radiological Barriers and Controls at Facilities</b>		
<i>Contamination spread within the facility?</i>	<input type="checkbox"/>	
<i>Damage to radiological barriers (incl. fuel damage) within the facility?</i>	<input type="checkbox"/>	
<b>Degradation of Defence In-Depth?</b>	X	
<b>Person injured physically or casualty?</b>	<input type="checkbox"/>	
<b>Is there a continuing problem?</b>	<input type="checkbox"/>	

## Event Description:

In August 2012, a candidate for radiographer working with an X-ray machine in the laboratory for industrial radiography was exposed over the dose constraint of 1.6 mSv per month. The dosimetry service reported the received dose of 7.6 mSv in one month period. The candidate entered into the controlled area to change the film when the X-ray machine was operating. He was exposed to the primary beam for 10 seconds, when the other worker in the team noticed that his colleague was in the controlled area. The safety system was in place to shut down the X-ray machine in case of entering the laboratory, but it was switched off in the past due to negligence of senior workers. The candidate did not wear the electronic dosimeter in addition to the personal one as it is required by legislation. At the same time the company's internal safety procedures were broken since the other worker in the team did not check before the irradiation if the safety system is switched on and the X-ray machine was not under supervision during the measurement. There was just one safety provision left. It was the warning light that was switched on, but it was overlooked due to the human factor. Further investigation of the event showed that the candidate did not fulfil conditions for exposed workers, since he did not have a valid medical certificate. The event indicates a low level of safety culture in the company. The rating for the event is level 1.

## Justification of INES Rating:

The event was rated as level 1 based on:

- Table 3 – Exposure of a worker in excess of dose constraints = Level 1.

- Table 7 – The X-Ray machine was a Category 4 source and in Table 7.B “Safety provision partially remaining” the possible event rating is 0 or 1. Due to significant safety culture implications and because there was only a single safety layer remaining, the event rating = Level 1.

The final INES rating for the event is Level 1.

<b>Further Info on Web (URL):</b>	-
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