

# **RADIATION PROTECTION CONTROL AREA AROUND PASSANGER BAGGAGE X-RAY UNITS**

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## **ABSTRACT**

Checking passengers and their hand baggage for explosives and illegal or dangerous items and protecting transit systems from acts of terror presents unique security challenges. The number of new x-ray inspection systems installed on the airports raised the question about the radiation protection of security workers and passengers. Radiation exposure from baggage control x-ray units is to be recognized as a private or group hazard of each person alone. We have utilized an active electronic dosimeter (AED) to be used for real time measurements of security workers "possible" occupational dose. We measured the area dose around the baggage control x-ray unit in order to establish the control areas or areas of concern if any. Measurement were performed for a period of more than one year taking into account the passenger number, the number of items scanned and the x-ray radiation quality. The result is that the working area near the x-ray baggage control units used for hand baggage security scanning on airports is not to be regarded as radiation protection control area nor area of concern if the workers are obeying the security procedure rules. If properly installed, used and maintained X-ray control units used for security purposes do not represent any radiation exposure risk to the passengers.