

Job Safety Analysis (JSA)

Case and doc. no in ePhorte:
2012/11454-30

Page : 1 of 2

Prepared by :
HSE staff, OPA

Date : 24.09.2012
Edition : 1

Unit: Siemens D5005 X-ray Diffractometer

Date: ___/___/20__

Job task to which this Job Safety Analysis applies: Analytical characterization of geological materials with a Siemens D5005 Powder X-ray Diffractometer

Responsible employer: _____

Time of performance of the work: _____

Persons involved in performance of the work: _____

Description of the work: Powder XRD for qualitative identification of minerals in rocks and crystal structure analysis.

Training required: Introduction to the operation of the Siemens D5005 X-ray Diffractometer (length of the training variable according to the user experience).

PPE and other protective equipment to be used: gloves (during sample preparation).

Analysis:

Sub-tasks	Hazards	Preventive Measures
Operation	Ionization radiation	<p>PXRD is regularly serviced and safety checked.</p> <p>There should be no exposure to X-rays or to the ionization radiation.</p> <p>The operator is not exposed to any radiation under normal working mode. Never deviate from normal mode or try to override the interlock.</p> <p>If you are a regular user of the lab, use your dosimeter.</p>
	Electrocution	<p>Do not remove the protective covers from the PXRD instrument. Do not open other components of the equipment. Do not touch cables and wires. Do not let</p>

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		water or other objects come in contact with electric components of the equipment.
Introducing and/or removing samples in the PXR	Personal injury caused by jamming body parts (hands)	Make sure hands and/or other body parts are clear of the chamber when closing the chamber door.
Prolonged use	Eye strain	Do regular breaks (10 min/h during operation)
	Tiredness	Do regular breaks (10 min/h during operation)
	Musculoskeletal strain or injury	Do regular breaks (10 min/h during operation) Adjust height of the seat, so that the back and neck and upright

Participants in the analysis and signatures

Role	Name	Date/signature
Lab Manager/deputy	_____	_____/_____
	_____	_____/_____
	_____	_____/_____

The Job Safety Analysis has been read (signatures of users who will perform or be affected by the work)

Name	Date/signature
_____	_____/_____
_____	_____/_____
_____	_____/_____