NDM Accident Procedure

Version 1.1
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Ensure this procedure is readily available at all locations where NDMs are used and / or stored.	**Definition of 'Accidents'** Unintended events, including operating errors, equipment failures and other mishaps, the consequences, or potential consequences of which are not negligible from the point of view of protection and safety.	**Examples of Accidents** • Operating errors • Equipment damage • Equipment failures

OPERATOR

1 Isolate the Device

a Don't panic. Life-saving actions take precedence over safety of the device.

b Cordon off a clear zone of about 3 m radius around the damaged meter.

c Keep bystanders away.

2 Make it safe

a Do not move the device.

b If the probe is exposed, retract it into the device if possible (safe mode).

3 Take photos

a From a safe distance, take photos of the damaged device.

4 Ask for help

a Contact your Use License Holder and RSO.

b Provide them with the photos so that they can quickly ascertain the severity of the damage to the device.

c Let them know if the probe cannot be retracted into the device.

d Request them to bring a survey meter, disposable gloves, cotton buds and a plastic bag big enough to contain the cotton buds and disposable gloves to the accident site. They should also wear their dosimeter.

USE LICENSE HOLDER / RSO

5 Look After Yourself & Others

a Wear a dosimeter.

b Keep bystanders outside of the cordon.

c Wear disposable gloves.

6 Radiation Dose Rate Survey a Turn the survey meter on. Use the '*Mode*' button to select '*mSv/h*'. b If the rod is broken off, survey it without touching the rod. c If the source is unshielded or exposed, do not touch it. d Do not handle anything with a radiation level >2 mSv/h.	**≤ 2 mSv/h**	✓	**Progress to Step 7**
	> 2 mSv/h	STOP	**Phone the ORS Duty Officer at mob 021 393 632 for advice**
7 Field Contamination Check a On the survey meter, use the '*Mode*' button to select 'CPS' (counts per second). b Using a cotton bud, wipe a large area at the bottom of the NDM. If the source rod is broken off from the gauge, use a cotton bud to wipe the rod. c Step away at least 3 m from the NDM to prevent it from influencing the readings and survey the cotton bud with the survey meter. d A reading of <3 counts per second is good enough for clearance from the scene. e Place the cotton bud in the plastic bag.	**≤ 3 CPS**	✓	**Progress to Step 8**
	> 3 CPS	STOP	**Phone the ORS Duty Officer at mob 021 393 632 for advice**

8 Device Survey 1 a Secure the source rod into the shielding if possible. b Ensure that the tungsten shield closes properly (if possible). c Place the device and all parts that may have become dislodged in the transport box. d Turn the survey meter on. Use the '*Mode*' button to select 'µSv/h'. e Place the survey meter on the source point label. f Leave it monitoring for ~30 seconds. g Record the peak reading.	**≤ 100 µSv/h**	✓	**Progress to Steps 10 & 11**
	> 100 µSv/h	STOP	**Check the tungsten shield & progress to Device Survey 2 (Step 9)**
9 Device Survey 2 a Turn the survey meter on. Use the '*Mode*' button to select 'µSv/h'. b Place the survey meter on the source point label. c Leave it monitoring for ~30 seconds. d Record the peak reading.	**≤ 100 µSv/h**	✓	**Progress to Steps 10 & 11**
	> 100 µSv/h	STOP	**Phone the ORS Duty Officer at mob 021 393 632 for advice**
10 Remove the Device from the Site a Place the disposable gloves in the plastic bag, seal the bag, and place it in the transport box. b Close the transport box and transport it to your office. c Clearly mark the transport box '*Damaged - Do not use*'. d Transport the device & transport box to a service agent.			
11 Report* Is this event classed by ORS as a 'Reportable Incident'?	**Yes**	✓	**Report to ORS & record actions**
	No	✓	**Close out the event & file records of actions**

*ORS C12 Definition:

'Any accident or other unintended event, the consequences or potential consequences of which are not negligible from the point of view of protection and safety and results in:

- *dose limit being exceeded; or*
- *device that is lost, missing or beyond regulatory control; or*

damage to the device shielding or sealed source.'