

# Schedule of Accreditation



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|---|---|
| Organisation Name                             | EPA   |
| Trading As                                    | Environmental Protection Agency                         |
| INAB Reg No                                   | 311C  |
| Contact Name                                  | Éidín Christie  |
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| Website                                       |   |
| Accreditation Standard                        | EN ISO/IEC 17025 C                                      |
| Standard Version                              | 2017  |
| Date of award of accreditation                | 16/04/2013  |
| Scope Classification                          | Metrology   |
| Services available to the public <sup>1</sup> | Yes   |

<sup>1</sup> Refer to document on interpreting INAB Scopes of Accreditation

| Sites from which accredited services are delivered   |                            |   |
|--|----------------------------|---|
| (the detail of the accredited services delivered at each site are on the Scope of Accreditation) |                            |   |
|  | Name                       | Address   |
| 1  | Dublin - Clonskeagh Square | 3 Clonskeagh Square, Clonskeagh Road, Dublin, Ireland, D14 H424 |

|   |                           |  |
|---|---------------------------|--|
| 2 | Dublin - McCumiskey House | McCumiskey House, Richview, Clonskeagh Road, Dublin 14, Dublin, D14 YR62 |
| 3 | Kilkenny                  | Seville Lodge, Callan Road, Kilkenny, R95 ED28                           |

# Scope of Accreditation

Dublin - Clonskeagh Square

Metrology

Category: A

| Metrology field - Calibrated Device Type                  | Measured quantity                 | Calibration range  | Expanded Measurement Uncertainty | Std. ref/SOP                                     | Products    | Remarks  |
|---|-----------------------------------|--|----------------------------------|--|-------------|--|
| 117 Radiation - .01 Ionising radiation survey instruments | Air Kerma Rate<br>Gamma Radiation | <sup>137</sup> Cs @ 662keV:<br>4 $\mu\text{Gyh}^{-1}$ to 183 $\text{mGyh}^{-1}$  | 0.04                             | In house Calibration procedure RIC204 and RIC205 | Calibration | Air kerma rates are determined using a secondary standard ionisation chamber. The range of uncertainties obtained when calibrating instruments for clients is typically 5-20%. |
|   |                                   | <sup>241</sup> Am @ 60keV:<br>3 $\mu\text{Gyh}^{-1}$ to 194 $\mu\text{Gyh}^{-1}$ | 0.05                             | In house Calibration procedure RIC204 and RIC205 | Calibration | Air kerma rates are determined using a secondary standard ionisation chamber. The range of uncertainties obtained when calibrating instruments for clients is typically 5-20%. |

|   |  |                                      |   |             |   |
|---|--|--------------------------------------|---|-------------|---|
| Ambient Dose Equivalent Rate Gamma Radiation                            | <sup>137</sup> Cs @ 662keV:<br>5 $\mu\text{Sv h}^{-1}$ to 220 mSv                  | 0.04                                 | In house Calibration procedure RIC204, RIC206, RIC207 and RIC208  | Calibration | Air kerma rates are determined using a secondary standard ionisation chamber. The range of uncertainties obtained when calibrating instruments for clients is typically 5-20%.  |
|   | <sup>241</sup> Am @ 60keV:<br>6 $\mu\text{Sv h}^{-1}$ to 358 $\mu\text{Sv h}^{-1}$ | 0.05                                 | In house Calibration procedure RIC204, RIC206, RIC207 and RIC208  | Calibration | Air kerma rates are determined using a secondary standard ionisation chamber. The range of uncertainties obtained when calibrating instruments for clients is typically 5-20%.  |
| Surface Contamination Monitor Response. Alpha & Beta Particle Radiation | Alpha- & Beta-emitting radionuclides:<br><sup>14</sup> C                           | 5 to 20% (depending on monitor type) | In house procedure RIC213 based on NPL Measurement Good Practice Guide No.14 with large area ISO 8769 type sources. | Calibration | Calibration of health physics instruments such as dose / doserate survey meters, personal dosimeters and bleepers, and ion chambers/electrometer systems, using calibrated gamma radiation fields from caesium-137 and americium-241 sources. |
|   | Alpha- & Beta-emitting radionuclides:<br><sup>241</sup> Am                         | 5 to 20% (depending on monitor type) | In house procedure RIC213 based on NPL Measurement Good Practice Guide No.14 with large area ISO 8769 type sources. | Calibration | Calibration of health physics instruments such as dose / doserate survey meters, personal dosimeters and bleepers, and ion chambers/electrometer systems, using calibrated gamma radiation fields from  |

|  |  |  |                                      |   |  |   |
|--|--|--|--------------------------------------|---|--|---|
|  |  |  |                                      |   | caesium-137 and americium-241 sources. |   |
|  |  | Alpha- & Beta-emitting radionuclides:<br><sup>90</sup> Sr  | 5 to 20% (depending on monitor type) | In house procedure RIC213 based on NPL Measurement Good Practice Guide No.14 with large area ISO 8769 type sources. | Calibration                            | Calibration of health physics instruments such as dose / doserate survey meters, personal dosimeters and bleepers, and ion chambers/electrometer systems, using calibrated gamma radiation fields from caesium-137 and americium-241 sources. |
|  |  | Alpha- & Beta-emitting radionuclides:<br><sup>137</sup> Cs | 5 to 20% (depending on monitor type) | In house procedure RIC213 based on NPL Measurement Good Practice Guide No.14 with large area ISO 8769 type sources. | Calibration                            | Calibration of health physics instruments such as dose / doserate survey meters, personal dosimeters and bleepers, and ion chambers/electrometer systems, using calibrated gamma radiation fields from caesium-137 and americium-241 sources. |
|  |  | Alpha- & Beta-emitting radionuclides:<br><sup>36</sup> CL  | 5 to 20% (depending on monitor type) | In house procedure RIC213 based on NPL Measurement Good Practice Guide No.14 with large area ISO 8769 type sources. | Calibration                            | Calibration of health physics instruments such as dose / doserate survey meters, personal dosimeters and bleepers, and ion chambers/electrometer systems, using calibrated gamma radiation fields from caesium-137 and                        |

|  |  |  |  |  |  |                        |
|--|--|--|--|--|--|------------------------|
|  |  |  |  |  |  | americium-241 sources. |
|--|--|--|--|--|--|------------------------|

*Calibration Measurement Capability (CMC) is expressed in terms of the following parameters:*

- Measure and or reference material*
- Calibration or measurement method or procedure and type of instrument or material calibrated/measured*
- Measurement range and additional parameters where applicable*
- Measurement uncertainty.*

*Measurement uncertainty shall be reported in compliance with EA 4/02 "Expression of the Uncertainty of Measurement in Calibration".*

*In accordance with INAB policy, uncertainties are calculated for an estimated confidence level of not less than 95%.*

## Metrology

Category: A

| Metrology field - Calibrated Device Type | Measured quantity                 | Calibration range           | Expanded Measurement Uncertainty | Std. ref/SOP           | Products                         | Remarks   |
|--|-----------------------------------|-----------------------------|----------------------------------|------------------------|----------------------------------|---|
| 122 Emissions - .01 Gas analysers        | Carbon Monoxide (CO)              | 0 to 25 $\mu\text{mol/mol}$ | $\pm 5\%^*$                      | EN14626:2012 /SOP AC01 | Analyser, Gas Filter Correlation | *Uncertainties are calculated for an estimated confidence level of not less than 95%. |
|  | NO <sub>x</sub> , NO <sub>2</sub> | 0 to 500 nmol/mol           | $\pm 5\%^*$                      | EN14211:2012 /SOP AC02 | Analyser, by Chemiluminescence   | *Uncertainties are calculated for an estimated confidence level of not less than 95%. |
|  | Ozone, O <sub>3</sub>             | 0 to 250 nmol/mol           | $\pm 5\%^*$                      | EN14625:2012 /SOP AC04 | Analyser, UV Absorption          | *Uncertainties are calculated for an estimated confidence level of not less than 95%. |
|  | SO <sub>2</sub>                   | 0 to 500 nmol/mol           | $\pm 5\%^*$                      | EN14212:2012 /SOP AC03 | Analyser, UV Fluorescence        | *Uncertainties are calculated for an estimated confidence level of not less than 95%. |

Calibration Measurement Capability (CMC) is expressed in terms of the following parameters:

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- Calibration or measurement method or procedure and type of instrument or material calibrated/measured
- Measurement range and additional parameters where applicable
- Measurement uncertainty.

Measurement uncertainty shall be reported in compliance with EA 4/02 "Expression of the Uncertainty of Measurement in Calibration".

In accordance with INAB policy, uncertainties are calculated for an estimated confidence level of not less than 95%.

Category: A

| Metrology field - Calibrated Device Type | Measured quantity | Calibration range  | Expanded Measurement Uncertainty | Std. ref/SOP             | Products                          | Remarks   |
|--|-------------------|--------------------|----------------------------------|--------------------------|-----------------------------------|---|
| 122 Emissions - .01 Gas analysers        | Benzene           | 0 to 15.4 nmol/mol | ±25%*                            | EN14662-3:2005 /SOP AC05 | Analyser, Autoamted pump sampling | *Uncertainties are calculated for an estimated confidence level of not less than 95%. |

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- Measurement range and additional parameters where applicable*
- Measurement uncertainty.*

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