

Radiation Monitor Selection Chart

| Isotope        | Major Emis.(keV) |           | E | EP15 | EP15F | S | SL | R | D | G | 1000R | 41 | 42A | 42B | 44A | 44B | Comments   |
|----------------|------------------|-----------|---|------|-------|---|----|---|---|---|-------|----|-----|-----|-----|-----|--|
|                | Beta             | Gamma     |   |      |       |   |    |   |   |   |       |    |     |     |     |     |  |
| Carbon 14      | 150              |           |   | •    |       |   |    |   |   |   |       |    |     |     |     |     | 900EP15  |
| Sodium 22      | 545              | 1770      | • | •    | •     | • | •  |   |   |   |       |    |     |     |     |     | 900S, 900SL, 900E, 900EP15, 900EP15F                                     |
| Phosphorous 32 | 1700             |           | • | •    | •     | • |    |   |   |   |       |    |     |     |     |     | 900E, 900S, 900EP15, 900EP15F  |
| Phosphorous 33 | 245              |           |   | •    |       |   |    |   |   |   |       |    |     |     |     |     | 900EP15  |
| Sulphur 35     | 167              |           |   | •    | •     |   |    |   |   |   |       |    |     |     |     |     | 900EP15, 900EP15F  |
| Chlorine 36    | 709              |           | • | •    | •     | • | •  |   |   |   |       |    |     |     |     |     | 900E, 900S, 900SL, 900EP15, 900EP15F                                     |
| Calcium 45     | 257              |           | • | •    | •     | • | •  |   |   |   |       |    |     |     |     |     | 900EP15, 900EP15F  |
| Chromium 51    |                  | 320       |   | •    | •     |   |    |   |   |   |       | •  |     |     |     | •   | 900/44B (open source), 900/41 (for source in vial)                       |
| Iron 55        |                  | 6         |   |      |       |   |    |   |   |   |       | •  |     |     |     | •   | 900/44B  |
| Cobalt 57      |                  | 122       |   |      |       |   |    |   |   |   |       | •  | •   |     | •   |     | 900/44A, 900/42A, 900/41   |
| Cobalt 58~     |                  | 6.5 / 810 |   |      |       |   |    |   |   |   |       | •  |     |     | •   | •   | 900/44B, 900/44A, 900/41 (for source vial)                               |
| Cobalt 60      | 1550             | 1330      | • | •    |       |   | •  | • | • | • | •     | •  |     |     |     |     | 900/41, 900SL, 900EP15, 900E, 900R, 900D, 900G, 1000R                    |
| Gallium 67     |                  | 93        |   |      |       |   |    |   |   |   |       |    |     |     |     | •   | 900/44A, 900/44B   |
| Selenium 75    |                  | 264       |   |      |       |   |    |   |   |   |       | •  |     |     |     | •   | 900/44A, 900/41, 900/44B   |
| Strontium 90   | 546              |           | • | •    | •     | • | •  |   |   |   |       |    |     |     |     |     | 900S, 900SL, 900E, 900EP15, 900EP15F                                     |
| Technetium 99  |                  | 140       |   |      |       |   |    |   |   |   |       | •  |     |     |     | •   | 900/41, 900/44A  |
| Cadmium 109    |                  | 88        |   |      |       |   |    |   |   |   |       |    | •   | •   |     | •   | 900/44A, 900/42B, 900/42A  |
| Indium 111~    |                  | 23 / 245  |   |      |       |   |    |   |   |   |       |    |     |     |     | •   | 900/44B, 900/44A   |
| Indium 113~    |                  | 35 / 392  |   |      |       |   |    |   |   |   |       |    |     |     |     | •   | 900/44B, 900/44A   |
| Tellurium 123  |                  | 27        |   |      |       |   |    |   |   |   |       |    |     |     |     | •   | 900/44A  |
| Iodine 123     |                  | 27        |   |      |       |   |    |   |   |   |       |    |     |     |     | •   | 900/44A  |
| Iodine 125     |                  | 35        |   |      |       |   |    |   | • |   |       |    |     |     |     | •   | 900/44A (surface directional work), 900D                                 |
| Iodine 131     | 606              | 363       |   | •    | •     |   |    |   |   |   |       | •  |     |     |     | •   | 900EP15, 900EP15F, 900/41  |
| Barium 133     |                  | 30 / 360  |   |      |       |   |    |   |   |   |       |    |     | •   | •   | •   | 900/44A&B (open source), 900/41 (for source in vial), 900/42B            |
| Caesium 137    | 512              | 662       | • | •    | •     |   | •  | • | • | • | •     | •  |     |     |     | •   | 900R, 900D, 900G, 900E, 900EP15, 900EP15F, 900SL, 900/44A, 900/41, 1000R |
| Thulium 170    | 964              | 84        |   |      |       |   |    |   |   |   |       |    |     |     |     | •   | 900/44A  |
| Iridium 192    | 666              | 316       | • | •    |       |   |    |   |   |   | •     | •  |     |     |     | •   | 900E, 900EP15, 900/44A, 900/41, 1000R                                    |
| Gold 195       |                  | 261       |   |      |       |   |    |   |   |   |       |    |     |     |     | •   | 900/44A  |
| Radium 226     |                  | 186       |   |      |       |   |    | • | • | • | •     |    |     |     |     | •   | 900R, 900G, 900D, 1000R, 900/44A (for alpha detection), 900/alpha-probe  |
| Americium 241  |                  | 59        |   |      |       |   |    | • | • |   |       |    |     |     |     | •   | 900/44A(for alpha detection), 900/alpha-probe, 900R, 900D                |
| Polonium 210   |                  |           |   | •    |       |   |    |   |   |   |       | •  |     |     |     |     | 900/alpha-probe, 900EP15, 900/41 for large source                        |
| Thallium 204   |                  |           |   | •    |       |   |    |   |   |   |       |    |     |     |     |     | 900EP15  |
| Krypton 85     |                  |           | • |      |       |   |    |   | • |   |       |    |     |     |     |     | 900D, 900E   |
| Caesium 134    |                  |           | • | •    |       |   |    |   |   |   |       | •  |     |     |     |     | 900E, 900EP15, 900/41  |
| Nickel 63      |                  |           | • | •    |       |   |    |   |   |   |       |    |     |     |     |     | 900EP15, very low sensitivity to this nuclide                            |
| Uranium 238    |                  |           | • | •    |       |   |    |   |   |   |       |    |     |     |     |     | 900E, 900EP15  |
| Promethium 147 |                  |           |   | •    |       |   |    |   |   |   |       |    |     |     |     |     | 900EP15  |

NOTE:  
~electron capture nuclide