Guidelines for the submission of Information about, and Assessment of, the Application of BAT and BEP in Nuclear Facilities

(OSPAR Agreement: 2018-01)[[1]](#footnote-1)

Replaces Agreement 2004-03

**Section1: Country Profile Template**

Section 1: Summary document detailing

* Relevant national authorities and responsibilities;
* National legislation and basis for regulation;
* Application of BAT/BEP in domestic legislation;
* Dose limit, constraints and discharge limit setting rationale;
* Regulation, surveillance and monitoring;
* Environmental monitoring programmes;
* Radiation dose assessment methods;
* Environmental norms and standards;
* Quality assurance.

Section 2: Nuclear Power Plants

* Name of nuclear facility
* Location of nuclear power plant(s)
* Year for commissioning/licensing/decommissioning
* Receiving waters and catchment area
* Other voluntary relevant information that does not tend to change.

Section 3: Reprocessing facilities

* Name of reprocessing facility
* Location of reprocessing facility
* Year for commissioning/licensing/decommissioning
* Receiving waters and catchment area
* Other voluntary relevant information that does not tend to change.

Section 4: Fuel fabrication facilities

* Name of fuel fabrication facility
* Location of fuel fabrication facility
* Year for commissioning/licensing/decommissioning
* Receiving waters and catchment area
* Other voluntary relevant information that does not tend to change.

Section 5: Radioactive waste treatment facilities

* Name of radioactive waste treatment facility(ies)
* Location of radioactive waste treatment facility(ies)
* Year for commissioning/licensing/decommissioning
* Receiving waters and catchment area
* Other voluntary relevant information that does not tend to change.

Section 6: Research reactors

* Name of research reactor
* Location of research reactor
* Year for commissioning/licensing/decommissioning
* Receiving waters and catchment area
* Other voluntary relevant information that does not tend to change.

Section 7: Decommissioning activities

* This section is specifically related to all types of facilities at Sections 2 - 6
* Name of nuclear facility
* Location of nuclear/non-nuclear installation
* Year for commissioning/licensing/decommissioning
* Receiving waters and catchment area
* Other voluntary relevant information that does not tend to change.

**Section 2: SITE-SPECIFIC INFORMATION**

1. **SITE-SPECIFIC INFORMATION - DISCHARGES**

|  |  |  |
| --- | --- | --- |
| **OBJECTIVE** | **INFORMATION TO BE SUBMITTED** | **BAT/BEP INDICATOR** |
| Discharges to the marine environment, as well as emissions of concern to the marine environment, are limited through application of technical and managerial practices in accordance with Article 2, 3 (b) (i), as well as Appendix 1 on BAT/BEP of the OSPAR Convention | Name of site | N/A |
| Activities from whichradioactive liquid effluents arise (e.g. fuel handling operations). | N/A |
| BAT/BEP system(s) in place to reduce, prevent or eliminate discharges of radioactive substances to the marine environment, as well as emissions of radioactive substances of concern to the marine environment. In particular, systems taken into operation during the reporting period (or decided to be taken into operation) should be reported as well as changes in management of waste treatment (for example use of other waste streams), or processes that reduce discharges or emissions should be reported. | Relevant systems in place.  |
| Efficiency of *abatement* systems in terms of, e.g., retention times and distribution between waste streams destined for discharge and waste streams destined for disposal. | The decontamination (or abatement) factor or other measure of efficiency of abatement systems. |
| Annual liquid discharges:* nuclide specific data as given in the OSPAR Annual Report on Liquid Discharges with possible additional radionuclides from EC reporting requirements.
* data on beta emitters (excluding tritium), tritium and alpha emitters (normalised data with regard to net electrical output (power reactors) or tonnes U processed (reprocessing plants and fuel fabrication plants). Factors influencing the normalisation should be reported).

Data for at least the last six years should be submitted. | Downward trends in absolute and normalised dischargesComparison with values of similar installations world-wide, based on the most recent compilations published by OSPAR, UNSCEAR or EC. |
| Emissions to air of concern for the marine environment. Only nuclides with half-life >30 days should be considered, however, as a minimum, information on tritium, C-14 and I-129 should be submitted. Data for at least the last six years. | Downward trends |
| Explanations for lack of data or failure to meet BAT/BEP indicators, as well as, when appropriate, a description of on-going or planned activities. |  |

1. **SITE-SPECIFIC INFORMATION - ENVIRONNEMENTAL IMPACT**

|  |  |  |
| --- | --- | --- |
| **OBJECTIVE** | **INFORMATION TO BE SUBMITTED** | **BAT/BEP INDICATOR** |
| Marine ecosystems shall be protected, in accordance with Article 2, 1 (a), of the OSPAR Convention. | *Concentrations of radionuclides of concern in representative samples of water, sediment and fish. Data for at least the last six years.* | Development of environmental quality criteria is a part of the OSPAR Strategy with Regard to Radioactive Substances. Such criteria may be used as a BAT/BEP indicator.Downward trends. |
| Environmental monitoring programme, frequency of sampling, organisms and or other types of environmental samples considered. | The environmental monitoring programme is relevant, taking sample types, frequencies and the local environment into account. |
| Any relevant information not covered by the requirements specified above.  |  |
| Explanations for lack of data or failure to meet BAT/BEP indicators, as well as, when appropriate, a description of on-going or planned activities. |  |

1. **SITE-SPECIFIC INFORMATION - RADIATION DOSES TO THE PUBLIC**

|  |  |  |
| --- | --- | --- |
| **OBJECTIVE** | **INFORMATION TO BE SUBMITTED** | **BAT/BEP INDICATOR** |
| Human health shall be protected, in accordance with Article 2.1 (a) of the OSPAR Convention. | Average annual effective dose to the representative person via the marine exposure pathway(s), and caused by current discharges. Data should be submitted for the last six years. | Downward trend |
| Total exposures (i.e. including those from emissions and historic discharges/emissions). | The exposure is well within the constraint (or similar), provided the constraint gives reasonable allowance for other practices so that the annual effective dose from all practices is kept below 1 mSv. |
| The definition of the representative person, including information on age distribution, size and other relevant information, and on whether the representative person is real (identified) or hypothetical.Information on exposure pathway(s) considered, and whether these are treated individually or collectively. | Whether the representative person has changed, whilst taking into account local conditions and habits, as well as the exposure situation. |
| Basis for methodology to estimate doses (models, actual measurements, and verification of data, as appropriate).[[2]](#footnote-2)Site-specific factors for significant nuclides, used to estimate the dose to representative person from discharge values.  | The dose estimates are reliable and sufficiently realistic. |
| Site specific target annual effective dose. | Relevance of target and closeness to target value. |
| Any relevant information not covered by the requirements specified above.  |  |
| Explanations for lack of data or failure to meet BAT/BEP indicators, as well as, when appropriate, a description of on-going or planned activities. |  |

1. Replaces Agreement 2004-03 [↑](#footnote-ref-1)
2. If this information is general for the nuclear sector and/or part of a statutory programme, this information may be entered in the Country Profile. [↑](#footnote-ref-2)