Tool

Good practices for documenting regulatory reviews to facilitate the leveraging of information by other regulatory bodies

Introduction to the tool

This tool (*Good Practices for Documenting Regulatory Reviews to Facilitate the Leveraging of Information by Other Regulatory Bodies*) is intended to complement the process introduced in the IAEA TECDOC-2098, *Collaborative Reviews and Effective Leveraging* [1].

It provides practical guidelines for the regulatory body(-ies) (Source Regulator, or Regulator A in Ref. [1]) on documenting their review work in a manner that enables other regulatory body(-ies) (Recipient Regulator, or Regulator B in Ref. [1]) to effectively leverage this information in their own decision-making processes.

General publicly accessible information

It is good practice for the following types of general information to be documented and made publicly accessible, where appropriate, to facilitate understanding of the regulatory context and promote transparency:

- Legal and regulatory framework, including the licensing processes and procedures;
- Published technical discussions addressing specific regulatory and technical topics;
- Use of the Regulatory Cooperation Toolkit;
- Results of the Integrated Regulatory Review Service (IRRS) or other international missions/reviews, including follow-up activities where available.

Specific regulatory information

The following list outlines the types of information to be documented so that regulatory activities are transparent and can be effectively leveraged by other regulatory bodies:

- Assessment processes and regulatory framework applied (describing the 'when', 'what', 'why', and, where relevant, the 'how'), including:
  - Considerations used in grading the assessment (safety relevance and risk considerations);
  - The approach and tools applied such as safety demonstration, including:
    - Type of expertise and (operational) experience applied, including education and training of the personnel who performed the assessment;
    - Use of technical support organization(s);
    - Any independent assessments;
    - Any requests for information;
    - Any lessons learned;
    - The quality control process and its results, as means of building trust.
- Use of standard formats;
- Where appropriate, description of the use or implementation of IAEA Safety Standards as these often serve as a common basis;
- Documentation of public and stakeholder participation to build experience in communicating about new technology;
- Organization of review reports according to topics or issues, rather than solely by regulatory requirements;
- Preparation of documentation in English, where possible, to enhance accessibility.

Appendix I.

Example of good practices for source regulators in referencing IAEA Safety Standards

Consideration of IAEA Safety Standards by the UK Office for Nuclear Regulation (ONR) when making regulatory judgements, rather than exclusively referring to national requirements or guidance

Historically, ONR benchmarked its guidance, such as the Safety Assessment Principles (SAPs) and Technical Assessment Guides (TAGs), against the IAEA Safety Standards and the Western European Nuclear Regulators' Association (WENRA) reference levels, ensuring clear alignment is shown in each guidance document (see Section 4 of the TAG suite [2]). SAPs and TAGs guide inspectors on interpreting and applying principles and are extensively cited in ONR assessment, including Generic Design Assessment (GDA) judgements and reports. This approach has been in place since the beginning of GDA in 2008, with all summary and topic reports published on ONR's website [3]. In GDA projects prior to recent GDAs on small modular reactor (SMR) designs, references to the IAEA Safety Standards were mostly indirect, i.e. by referencing benchmarked ONR/national guidance. For example, the EPR GDA summary report [4] states the main document used for the GDA Step 4 assessment was the 2006 edition of SAPs [5] and has a single IAEA standard citation. The AP1000 GDA Cross-cutting Topics Report referred to individual SAPs rather than IAEA Safety Standards.

Current best practice for Source Regulators would be direct citation of international benchmarks. This is demonstrated in the GDA step 2 reports for the BWRX-300 SMR design (completed in 2025), where ONR explicitly referenced IAEA Safety Standards in its regulatory judgements. The Safety, Security, Safeguards and Environmental (SSSE) case was structured to align with IAEA's safety analysis format (SSG-61 [6]) and defence-in-depth hierarchy (SSR-2/1 [7]). ONR sampled challenges to defence in depth, e.g. systems/actions spanning multiple defence lines such as instrumentation and control systems (ICS) and control rod insertion, and assessed diversity claims in control and instrumentation platforms accordingly. ONR accepted the three-tier categorization and classification approach as consistent with both ONR expectations and IAEA SSG-30 [8]. ONR evaluated compliance with IAEA's requirement to practically eliminate large and early releases. While full demonstration was not achieved in Step 2, ONR judged the Requesting Party's proposed approach credible for future justification.

This evolution, from indirect references to explicit alignment with the IAEA Safety Standards, illustrates how direct citation of international standards strengthens transparency and consistency in regulatory decision making, facilitating adoption of regulatory judgements for Recipient Regulators in other IAEA Member States.

References

[1] INTERNATIONAL ATOMIC ENERGY AGENCY, Collaborative Reviews and Effective Leveraging — The IAEA's Nuclear Harmonization and Standardization Initiative, IAEA-TECDOC-2098, IAEA, Vienna (2025), https://doi.org/10.61092/iaea.psrj-fkjj

[2] OFFICE FOR NUCLEAR REGULATION, Nuclear Safety (TAGs), UK ONR, Bootle (2025), www.onr.org.uk/publications/regulatory-guidance/regulatory-assessment-and-permissioning/technical-assessment-guides-tags/nuclear-safety-tags

[3] OFFICE FOR NUCLEAR REGULATION, Assessment of Reactors, UK ONR, Bootle (2026), www.onr.org.uk/generic-design-assessment/assessment-of-reactors

[4] OFFICE FOR NUCLEAR REGULATION, Summary of the Detailed Design Assessment of the Electricité de France SA and AREVA NP SAS UK EPR Nuclear Reactor (Step 4 of the Generic Design Assessment Process), UK ONR, Bootle (2011).

[5] HEALTH AND SAFETY EXECUTIVE, Safety Assessment Principles for Nuclear Facilities, HSE, Bootle (2006).

[6] INTERNATIONAL ATOMIC ENERGY AGENCY, Format and Content of the Safety Analysis Report for Nuclear Power Plants, IAEA Safety Standards Series No. SSG-61, IAEA, Vienna (2021).

[7] INTERNATIONAL ATOMIC ENERGY AGENCY, Safety of Nuclear Power Plants: Design, IAEA Safety Standards Series No. SSR-2/1 (Rev. 1), IAEA, Vienna (2016).

[8] INTERNATIONAL ATOMIC ENERGY AGENCY, Safety Classification of Structures, Systems and Components in Nuclear Power Plants, IAEA Safety Standards Series No. SSG-30, IAEA, Vienna (2014).