# Transport of radioactive material

# Package design approval checklist

An applicant seeking a package design approval certificate from ARPANSA must ensure that the information, as described in paragraph 838 of the [*Code for the Safe Transport of Radioactive Material (2019)*](https://www.arpansa.gov.au/regulation-and-licensing/regulatory-publications/radiation-protection-series/codes-and-standards/rpsc-2)RPS C-2 (Rev. 1) is included as part of the application. A summary of the information which must be included is described below. Please include this checklist with your application.

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| Information required | Tick if included |
| 1. Detailed description of the radioactive contents, their physical and chemical states and the nature of the radiation emitted. |  |
| 2. Detailed statement of the design, including complete engineering drawings and schedules of materials and methods of manufacture. |  |
| 3. Details of the mode(s) of transport which will be used, e.g. road, rail, air, inland waterway or sea. |  |
| 4. Details of applicable national and international regulations under which approval is sought, e.g. IAEA. |  |
| 5. Details of other certificates for alternative radioactive contents, other competent authority validation, or additional technical data or information, which can substantiate your request for approval. |  |
| 6. Description of whether multilateral approval is being sought. If yes, include the required information which is described in paragraph 825. |  |
| 7. Description of the packaging identification. |  |
| 8. Description of the packaging by a reference to the drawings or a specification of the design. In addition, a reproducible illustration (ideally not larger than 21 cm by 30 cm), showing the make-up of the package, should also be provided, accompanied by a brief description of the packaging, including materials of manufacture, gross mass, general outside dimensions and appearance. |  |
| 9. Specification of the design by reference to the drawings. |  |
| 10. Description of the specific authorised radioactive contents contained within the packaging including any restrictions on the radioactive contents which might not be obvious from the nature of the packaging. This shall include the physical and chemical forms, the activities involved (including those of the various isotopes), mass in grams (for fissile material), and whether the package design is for special form radioactive material, low dispersible radioactive material or fissile material excepted under paragraph 417(f), if applicable. |  |
| 11. A description of the containment system. If the package is designed to have a maximum normal operating pressure in excess of 100 kPa gauge, a specification of the materials of manufacture of the containment system, the samples to be taken, and the tests to be made. |  |
| 12. For package designs containing fissile material that require multilateral approval in accordance with paragraph 814:  (i) a detailed description of the authorised radioactive contents;  (ii) a description of the confinement system;  (iii) the value of CSI (criticality safety index);  (iv) reference to the documentation that demonstrates the criticality safety of the contents;  (v) any special features on the basis of which the absence of water from certain void spaces has been assumed in the criticality assessment;  (vi) any allowance (based on paragraph 677(b)) for a change in neutron multiplication assumed in the criticality assessment as a result of actual irradiation experience; and  (vii) the ambient temperature range considered in the design. |  |
| 13. For Type B(M) package, a statement specifying those prescriptions of paragraphs 639, 655-657 and 660-666. |  |
| 14. For package designs subject to paragraph 820, a statement specifying those requirements of the current regulations with which the package does not conform. |  |
| 15. For packages containing more than 0.1 kg of uranium hexafluoride, a statement specifying those prescriptions of paragraph 634 that apply, if any, and any amplifying information which may be useful to other competent authorities. |  |
| 16. A detailed listing of any supplementary operational controls required for preparation, loading, carriage, unloading and handling of the consignment, including any special stowage provisions for the safe dissipation of heat. |  |
| 17. Description of the use of the packaging or specific actions to be taken prior to shipment, e.g. how the package is properly secured. |  |
| 18. A statement regarding the ambient conditions assumed for purposes of design if these are not in accordance with those specified in paragraphs 656, 657 and 666, as applicable. |  |
| 19. A specification of the applicable management system as required in paragraph 306. |  |
| 20. Operating and maintenance instructions for the use of packaging. |  |
| 21. Any applicable emergency procedures. |  |
| 22. A copy of the Safety Analysis Report (SAR). |  |
| 23. Applicant identity. |  |