

**CONFIDENTIAL
WHEN COMPLETED**

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**INTERNATIONAL ATOMIC ENERGY AGENCY
DEPARTMENT OF SAFEGUARDS AND INSPECTION**

**DESIGN INFORMATION
QUESTIONNAIRE ***

(CONTINUED)

The "Confidential" marking on this form is for IAEA purposes only. It indicates that the IAEA considers the information in the completed form to be 'safeguards confidential' and is not to be confused with any U.S. security classification.

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* Questions which are not applicable may be left unanswered.

GEOLOGICAL REPOSITORIES

GENERAL FACILITY DATA

13. FACILITY DESCRIPTION	GENERAL LAYOUT(S) ATTACHED UNDER REFERENCE NUMBERS:
i) Information on the host geology of the geological repository (including geological stratification; geochemistry; geophysics; identification of radionuclides found in the repository environment; and evidence and conclusions on the integrity of the host rock)	
ii) Description of restricted zone and other controlled areas established around the repository	
iii) Geological repository characterization activities (e.g., subsurface excavations and exploratory activities)	
iv) Information on the design of the geological repository underground area, (including layout, isolation doors, measures to strengthen or stabilize walls and ceilings of excavations; and shaft and vent size and features)	
v) Information on design of the surface areas (including receipt, storage, and preparation of canisters for disposal)	
vi) Information on accesses to the underground area for personnel and materials; on provision of utilities and on areas for receipt and storage of disposal canisters	
vii) Hoist and transport vehicle capacity (e.g., maximum weight loads)	
viii) Information on the presence of nearby mines and other nearby excavation activities (including identification of structures that might conceal an entrance to excavations)	
ix) Other safeguards-relevant information	

GENERAL FACILITY DATA

14.	PROCESS DESCRIPTION (including above ground and underground facility operations; canister preparation process; canister storage; ramp, tunnel, and shaft excavation; rock removal and storage; canister, materials, and back fill transport; backfilling and tunnel closure; and nominal schedule of excavation, receipts, transfers to underground, emplacement and backfilling)	
15.	DESIGN CAPACITY (as number of disposal canisters and quantity of nuclear material)	
16.	ANTICIPATED ANNUAL DISPOSALS (in the form of a projected programme, and including disposal of other radioactive materials other than spent fuel, if applicable)	
17.	OTHER IMPORTANT ITEMS OF EQUIPMENT	
i)	Monitoring system for excavation activities (including types, locations, and depths of sensors)	
ii)	Other monitoring systems (including safety monitoring)	
iii)	Other equipment (including testing and experimental equipment)	

NUCLEAR MATERIAL DESCRIPTION AND FLOW

18. MAIN MATERIAL DESCRIPTION		
i)	Types of nuclear material, including other nuclear, and other radioactive, material in the facility besides spent fuel (type, form, quantity, and location)	
ii)	Types of accountability units to be handled in the facility	
iii)	Appearance, means of identification, and overall dimensions of accountability units (e.g., disposal canisters and other containers)	
iv)	Number of fuel assemblies or other radioactive material per disposal canister or other container	
v)	Number of disposal canisters or other containers per transport container	
vi)	Range of weight of nuclear material per disposal canister or other container	
vii)	Frequency of receipt of accountability units (e.g., batches or units per month)	
viii)	Frequency of transfers underground and emplacement of disposal canisters or other containers.	
ix)	Range of radiation levels and temperatures at surface of containers	
19.	SCHEMATIC FLOWSHEET FOR NUCLEAR MATERIAL (identifying measurement points, accountability areas, inventory locations, etc.)	DRAWING(S) ATTACHED UNDER REF. Nos.
20.	DESIGN RANGE OF INVENTORIES OF NUCLEAR MATERIAL IN EACH STORAGE AREA	

FACILITY OPERATION AND HANDLING OF NUCLEAR MATERIAL	
21. TRANSPORT AND DISPOSAL CONTAINER DESCRIPTION (including size, design, material of construction, special identifying features, internal basket design, capacity, closure, etc.)	DRAWING(S) ATTACHED UNDER REF. Nos.
22. SHIELDING (for storage and transfer)	DRAWING(S) ATTACHED UNDER REF. Nos.
23. METHODS AND MEANS OF TRANSFER OF NUCLEAR MATERIAL (include description of equipment used for transport and emplacement of disposal canisters)	DRAWING(S) ATTACHED UNDER REF. Nos.
24. TRANSPORTATION ROUTES FOLLOWED BY NUCLEAR MATERIAL (with reference to plant layout)	DRAWING(S) ATTACHED UNDER REF. Nos.
25. DESCRIPTION OF EACH NUCLEAR MATERIAL STORAGE AREA	DRAWING(S) ATTACHED UNDER REF. Nos.
26. METHOD OF POSITIONING OF NUCLEAR MATERIAL IN STORAGE AREA	DRAWING(S) ATTACHED UNDER REF. Nos.
27. METHOD OF NUCLEAR MATERIAL EMPLACEMENT (describe unloading and/or emplacement procedures)	
28. DESCRIPTION OF EACH NUCLEAR MATERIAL EMPLACEMENT AREA (including number of disposal locations)	
MAINTENANCE	
29. ABOVE GROUND AND UNDERGROUND MAINTENANCE ACTIVITIES	
PROTECTION AND SAFETY MEASURES	
30. BASIC MEASURES FOR PHYSICAL PROTECTION OF NUCLEAR MATERIAL	
31. SPECIFIC HEALTH AND SAFETY RULES FOR INSPECTOR COMPLIANCE	
NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL	
32. SYSTEM DESCRIPTION	
i) General (give a description of the nuclear material accountancy system, the method of recording and reporting accountancy data and establishing material balances. This section should also state what general and subsidiary ledgers will be used, their form as well as who has the responsibility and authority. Source data should be identified. The procedures for making adjustments should be covered.)	SPECIMEN FORMS USED IN ALL PROCEDURES ATTACHED UNDER REF. Nos.

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL	
ii) Physical inventory (description of procedures, frequency, estimated distribution of nuclear material, methods of operator's inventory taking, and accessibility of and possible verification method for irradiated nuclear material)	
iii) Receipts	
iv) Transfers between MBA's	
v) Shipments (describe provisions for removal and shipment of disposal canisters and nuclear waste, if applicable)	
vi) Operational records and accounting records (including logbooks, general ledgers, internal transfer forms, method of adjustment or correction, language, control measures and responsibility, retention location for records, and means of long-term preservation of records)	
33. FEATURES RELATED TO MONITORING, CONTAINMENT, AND SURVEILLANCE MEASURES (general description of applied or possible measures in reference to facility plan)	
34. FOR EACH FLOW AND INVENTORY MEASUREMENT POINT OF ACCOUNTABILITY AREAS, IDENTIFIED IN PARTICULAR UNDER QS. 13, 19, AND 23 GIVE THE FOLLOWING	SEPARATE SHEET(S) CAN BE ATTACHED FOR EACH MEASUREMENT POINT. IF NECESSARY, ATTACH DRAWING(S):
i) Description of location, type and identification	
ii) Expected types of inventory change at this measurement point	
iii) Possibilities to use this measurement point for physical inventory taking	
iv) Means of batch identification	
v) Features related to containment-surveillance measures	
vi) Description of nuclear material containers used	
vii) Measurement method(s) and equipment used	
viii) Source and level of random and systematic errors (weight, NDA)	
ix) Technique and frequency of calibration of equipment used	

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

x) Anticipated batch flow rate per year	
xi) Anticipated number of inventory batches	
xii) Anticipated number of items per flow and inventory batch	

OPTIONAL INFORMATION

35. OPTIONAL INFORMATION (that the operator considers relevant to safeguarding the facility)	
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Signature of Responsible Officer:

Date:
