

SEPARATE STORAGE INSTALLATIONS



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**INTERNATIONAL ATOMIC ENERGY AGENCY
DEPARTMENT OF SAFEGUARDS**

**DESIGN INFORMATION
QUESTIONNAIRE ***

IAEA USE ONLY

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The purpose of this document is to obtain the facility design information required by the Agency in order to discharge its safeguards responsibilities. It will also serve as a checklist for examination of design information by Agency inspector(s). If, in any area, insufficient space is available add further sheets to the extent necessary.

IAEA USE ONLY	
COUNTRY	
COUNTRY OFFICER	
TYPE	Separate storage installations
DATE OF INITIAL DATA	
VERIFICATION	
LAST REVIEW AND UPDATING	

ALL FACILITIES

GENERAL INFORMATION

1. Name of the facility (include usual abbreviation)			
2. Location and postal address			
3. Owner (Legally responsible)			
4. Operator (Legally responsible)			
5. Description (Main features only)			
6. Purpose			
7. Status (e.g., planned; under construction, in operation; shut down; closed down; decommissioned)			
8. Construction schedule dates (if not in operation)	Start of Construction (MM/DD/YYYY) <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	Commissioning (MM/DD/YYYY) <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	Operation (MM/DD/YYYY) <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
9. Normal operating mode (days only, two shift, three shift; number of days/annum, etc.)			
10. Facility layout (structural containment, fences, access, nuclear material storage areas, laboratories, waste disposal areas, routes followed by nuclear material, experimental and test areas, etc.)	DRAWING(S) ATTACHED UNDER REF. NOS. <div style="border: 1px solid black; height: 80px; width: 100%;"></div>		
11. Sitting of facility (Maps showing in sufficient detail: location, premises and perimeter of facility, other buildings, roads, railways, rivers, etc.)	DRAWING(S) AND/OR MAPS ATTACHED UNDER REF. NOS. <div style="border: 1px solid black; height: 60px; width: 100%;"></div>		
12. Names and/or titles and address of responsible officers (for nuclear material accountancy and control and contact with the Agency. If possible attach organization charts showing position of officers)			

GENERAL STORAGE DATA

13. Facility Description (indicating important items of equipment which use, produce or process nuclear material)	GENERAL FLOW DIAGRAM(S) ATTACHED UNDER REF. NOs. <div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
14. Design Capacity	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
15. Anticipated annual throughput and inventory (in the form of forward program indicating the proportion of various receipts and shipments)	<div style="border: 1px solid black; height: 60px; width: 100%; margin-top: 5px;"></div>

NUCLEAR MATERIAL DESCRIPTION AND FLOW

16. Types of units handled at the facility	IF NECESSARY, ATTACH DRAWING(S) <div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
17. Main material description (In general)	DRAWING(S) ATTACHED UNDER REF. NOs <div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
i) Physical (mechanical) form and dimensions (for the items stored, attach drawings)	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
ii) Chemical form (Indicate chemical composition or main alloy constituents)	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
iii) Enrichment range and Pu content	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
iv) Range of weight of nuclear material	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
v) Cladding materials	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
vi) Means of nuclear material identification	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
vii) Types of containers, packaging	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
viii) Radiation level at nuclear material location	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
ix) Other nuclear material in the facility (Quantity, form and location of inventory) not already specified	<div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>
18. Schematic flowsheet for nuclear material (identifying measurement points, accountability areas, inventory location, etc., for operator purposes)	DIAGRAM(S) ATTACHED UNDER REF. NOs. <div style="border: 1px solid black; height: 60px; width: 100%; margin-top: 5px;"></div>

HANDLING OF NUCLEAR MATERIAL

19. Description of each nuclear material storage area (Inventory location)	DIAGRAM(S) ATTACHED UNDER REF. NOs. <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>
20. Design range of inventories of nuclear material in each storage area	<div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>
21. Method of positioning of nuclear material in storage	IF NECESSARY, ATTACH DRAWING(S) <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>
22. Routes and equipment used for movement of nuclear material (If applicable)	DRAWING(S) ATTACHED UNDER REF. NOs. <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>
23. Frequency of receipt and shipment	<div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>
24. Shielding (For storage and transfer)	<div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>

PROTECTION AND SAFETY MEASURES

25. Basic measures for physical protection of nuclear material	<div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>
26. Specific health and safety rules for inspector compliance (If extensive, attach separately)	<div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>

NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

27. System description give description of: • the nuclear material accountancy system; • the method of recording and reporting accountancy data and establishing material balances • the procedures for account adjustment after inventory and correction of mistakes, etc. under the following headings: i) General	SPECIMEN FORMS USED IN ALL PROCEDURES ATTACHED UNDER REF. NO. <div style="border: 1px solid black; height: 120px; margin-top: 5px;"></div>
ii) Receipts (including method of dealing with shipper/receiver differences and subsequent account corrections)	<div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>
iii) Shipments (including wastes)	<div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>



NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

iv) Physical inventory
Frequency, procedures, estimated distribution of nuclear material, methods of operator's inventory taking (both for item and/or bulk accountancy, including relevant assay methods), accessibility and possible verification method for irradiated nuclear material, expected accuracy, access to nuclear material

v) Operational records and accounting records
(including method of adjustment or correction and place of preservation and language)

28. Features related to containment and surveillance measures
(general description of applied or possible measures)

29. For each measurement point of accountability areas, identified under QS. 18, Give the following
(If applicable)
For each measurement point fill in separate sheet.
Number of measurement points: 1

SPECIMEN FORMS USED IN ALL PROCEDURES ATTACHED UNDER REF. NO.

i) Description of location, type, identification

ii) Anticipated types of inventory change and possibilities to use this measurement point for physical inventory taking

iii) Physical and chemical form of nuclear material
(with cladding materials description)

iv) Nuclear material containers, packaging

v) Sampling procedure and equipment used

vi) Measurement method(s) and equipment used

vii) Source and level of random and systematic errors
(weight, volume, sampling, NDA)

viii) Technique and frequency of calibration of equipment used

ix) Method of converting source data to batch data



NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

x) Means of batch identification

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xi) Anticipated batch flow rate per year

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xii) Anticipated number of inventory batches

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xiii) Anticipated number of items per flow and inventory batches

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xiv) Type, composition and quantity of nuclear material per batch (with indication of batch data, total weight of each element of nuclear material, and the isotopic composition (for uranium) and Pu content, when appropriate; form of nuclear material)

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xv) Features related to containment-surveillance measures

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POST-OPERATION INFORMATION

30. Decommissioning schedule dates

End of operations (MM/DD/YYYY)

Decommissioned (MM/DD/YYYY)

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31. Facility decommissioning plan

PLAN(s) ATTACHED UNDER REF. NOs

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i) Key events of the decommissioning plan

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ii) Removal and recovery of nuclear material

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iii) Removing or rendering inoperable of essential equipment

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OPTIONAL INFORMATION

32. Optional information
(that the operator considers relevant to safeguarding the facility)

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Signature of Responsible Officer

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Date (MM/DD/YYYY)

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