User Guide for AMR Entry Template

IGALL database

Version: 1.1

IAEA
International Atomic Energy Agency

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Introduction

This document serves as a comprehensive guide for IGALL experts using the **AMR Entry Template** to submit new or revised Ageing Management Review (AMR) table entries or IGALL Database dynamic data[1].

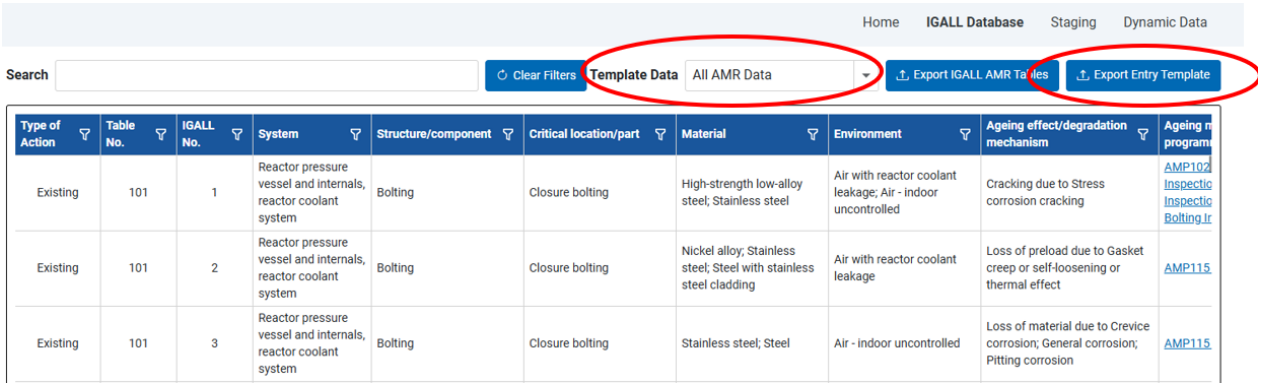
The template is designed to simplify the data submission process while ensuring alignment with the latest IGALL data standards. Experts can generate and download the template directly from the IGALL database platform by selecting specific AMR lines they wish to work on. This approach guarantees that users always work with the last **approved data**, populated with lookup values directly sourced from the database—eliminating manual errors and improving submission accuracy.

This document explains each sheet in the template, field-level instructions, and the rules for performing line actions like **New**, **Modify**, and **Delete** across AMR records and dynamic data. It also clarifies how these actions impact system behaviour during import to the new IGALL database.

Downloading the AMR Entry Template

Using this feature, experts can download the AMR Entry Template. This template can be used to submit the data modifications to AMR lines. The AMR Entry Template can be downloaded using the following options from the 'Template Data' dropdown menu:

- All AMR Data → pre-filled with all AMR lines with all look up dynamic data
- Filtered AMR Data → AMR sheet with selected AMR lines with all look up dynamic data
- Empty Template → blank AMR table with all look up dynamic data



Users can provide the name of the file during the download process by providing the name in the pop-up, if the file name is not provided the system will generate a default name and save the downloaded file in the downloads folder in the computer.

General Instructions

- The *Type of Action* field is mandatory if there is any change (New, Modify, Delete). Rows without a Type of Action will not be processed.
- The *Action Item* field is mandatory in the *AMR-Table* sheet if a Type of Action is specified.

[1] Dynamic data contains the terms and definitions used in the AMR lines and it is stored in the IGALL Database. Dynamic data is included as look up data in the AMR Entry template sheets to help users developing AMR change proposals.

- Fields from *System* to *Design* in the *AMR-Table* sheet must use lookup values from the reference sheets. Do not modify these fields by hand (add and modify these fields in the respective reference sheet)
- If a new or modified lookup value is required, it must be added to or modified on the relevant sheet with *Type of Action* = New or Modify.
- Complete all the information in the *Submission Details* sheet
- Provide comments in the *Remarks* field as much as possible about the changes, this will help IAEA Coordinators understand the changes. Include information about the relevant task (e.g. action item) that lead to the AMR data modification.

Best Practices

- Always use reference sheets for consistent terminology.
- Do not leave mandatory fields blank.
- Do not delete any columns in the excel sheet.
- Validate entries to avoid duplication or errors.
- Save and back up your work regularly.
- You can add or insert rows to the sheets as needed but make sure the Type of Action is 'New'.
- Do not leave blank/empty rows between the data

Adding a New AMR Entry

Steps for adding a new AMR entry:

1. Go to the *AMR-Table* sheet and enter the given new line(s) as described below. This is the primary sheet used for managing AMR records.
    a. Scroll to the last row or use insert to insert a new row
    b. *Type of Action:* This should be specified as "New". If the *Type of Action* column is left blank, then this record will NOT be added into the IGALL database.
    c. *Action item*: Provide the identifier (e.g. 2.09) of the IGALL action item associated with the new AMR lines.
    d. *Table No.*: Select the relevant table number from the drop down. Do NOT manually enter information into this cell.
    e. *IGALL No.*: Do not change this column. It should be left blank for new lines. This will be generated by the IGALL coordinator during the validation and publishing process.
    f. All other columns: Enter the appropriate information by selecting the relevant values from the dropdown. In case the required data is not available in the dropdown, then it can be added as described here. Do NOT manually enter information in these columns.
2. Background colour of new lines should be changed to yellow. This is not necessary for the database to process the changes; however, it makes the review process easier.
3. Save the changes.

Modifying an Existing AMR Entry

Steps for modifying the existing AMR entry:

1. Go to the *AMR-Table* sheet and modify the existing line(s) as described below. This is the primary sheet used for managing AMR records.
    a. Browse to the row that needs to be modified and update the necessary columns as shown below.
    b. *Type of Action*: Select "MODIFY". If this column is left blank, then this record will NOT be modified in the IGALL database.
    c. *Action item*: Provide the identifier (e.g. 2.09) of the IGALL action item associated with the AMR change.
    d. *Table No.*: Modify the table number if necessary, by selecting the relevant table number from the drop down. This information is modified only in exceptional cases, make sure if it is really needed.
    e. *IGALL No.:* Do NOT change the IGALL number as the modifications will be linked to this IGALL identifier.
    a. Any other column that requires changes can be modified by selecting the relevant or updated data from the drop down. In case the required data is not available in the dropdown, then it can be added as described here. Do NOT manually enter information in these columns.
2. Background colour of modified fields should be changed to yellow. This is not necessary for the database to process the changes; however, it makes the review process easier for the working group chair and the IAEA coordinators.
3. Save your changes

Deleting an AMR line

Steps for deleting the AMR line:

1. Go to the *AMR-Table* sheet and delete the given line(s) as described below. This is the primary sheet used for managing AMR records.
    a. Browse to the row that needs to be deleted and enter data in each column as below.
    b. *Type of Action*: Select "DELETE". If the *Type of Action* column is left blank, then this record will NOT be deleted from the IGALL database.
    c. *Action item*: Provide the identifier (e.g. 2.09) of the IGALL action item associated with the deletion.
    d. Do NOT change the IGALL number.
    e. No other changes are required as the line is marked for deletion.
2. Background colour of lines to be deleted should be changed to yellow. This is not necessary for the database to process the changes; however, it makes the review process easier for the working group chair and the IAEA coordinators.
3. Save your changes

Adding a New Value for Dynamic Data lookups

Each of the look up tables have the predefined values from the current version of the IGALL database dynamic data. These sheets - *System, Structures/Components, Critical Location, Material, Environment, Ageing Effect, Degradation Mechanism, AMP, TLAA, and Design* capture the dynamic data and are referred in *AMR-Table* sheet while adding or modifying an AMR entry.

If the necessary value is not available in the dropdown lists on the *AMR-Table* sheet, follow these steps to add a new entry to the dynamic data sheets.

1. **Identify the correct dynamic data reference sheet**

   For example:

   - If you're missing a system name → go to the *System* sheet.
   - If you're missing a material type → go to the *Material* sheet.

2. **Scroll to the bottom of the sheet or insert a new row**

   - Do not move any rows within the given sheet.

3. **Enter the new value** by filling in the appropriate columns:

   - *Type of Action*: Must be entered as "**New**" for all the new individual entries. If left blank, the new dynamic data values will not be added to the database. However, if the new entry in the look up value is for a combination of dynamic registers, then "Type of Action" should be kept empty (see below for more guidance on combination entries).
   - *Name*: Enter the name. If this is left blank, then it will not be visible in AMR-table and will not be stored in the database
   - *Definition*: Enter a short definition (if applicable).
   - *Is Combination*: Allowed values "YES", "No" or blank.
     1. YES – If more than one dynamic data entry is defined in the name field (e.g. Aluminium; Steel).
     2. NO – If only one dynamic data entry is entered in the row.
     3. Blanks – If there is no value entered in this column, then the system defaults the value to "No" which means the entry is not a combination.

4. Background colour of lines to be added should be changed to yellow.

5. **Save your changes** to ensure the new value is registered and can be used via the dropdown in the 'AMR-Table' sheet.

Modifying existing Value for Dynamic Data lookups

Follow these steps to modify an existing entry:

1. **Identify the correct reference sheet**

   For example:

   - If you need to modify a system name → go to the *System* sheet.
   - If you need to modify a material type → go to the *Material* sheet.

2. **Scroll to row that needs to be modified and fill in the appropriate columns:**

   - Type of Action: **Modify**
   - Modify applicable entries
   - Note: Each row in the Excel sheet has a hidden unique identifier, so changes must be made by overwriting the existing row with the Type of Action = MODIFY. Do not insert new rows or delete existing rows, as this will break the identifier mapping and the modify action will fail.
   - Do not move any rows within the given sheet.

3. Background colour of modified entries should be changed to yellow.
4. **Save your changes** to ensure the new value is registered and can be used via the dropdown in the 'AMR-Table' sheet.

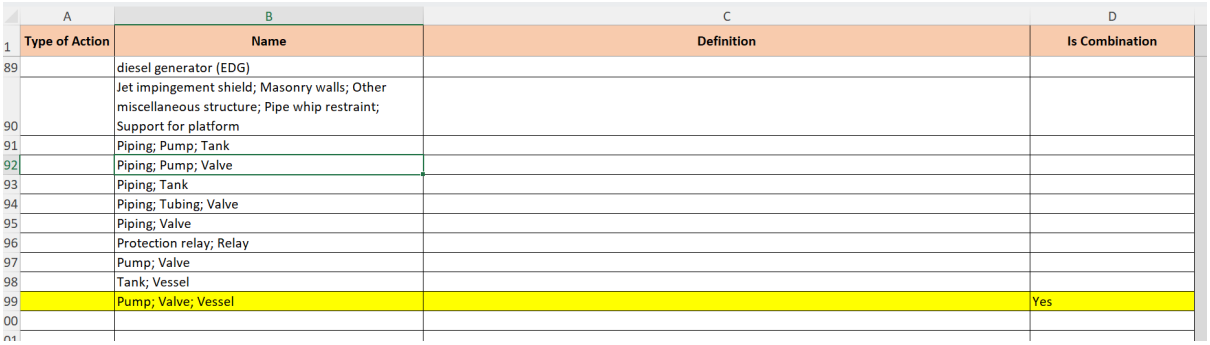
Instructions for "Is Combination"

This field is used in the sheets with lookup data (*System* through *Design* sheets).

- If there is a combination to be defined to be used in the AMR lines, then it must be included in the respective dynamic data sheet.
- "Is combination" field for such records should be indicated as "Yes".
- "Type of action" for the Combination records should be kept empty/blank.
- If an entry is a combination of new items or new and existing item(s), then multiple entries must be created.
  - Step1: Create a new, separate entry for each of the new items. These lines should have "type of action" filled in as "New". The "Is combination" field is left blank or marked "No".
  - Step2: Create an entry for the combination of the new and existing items. For this line, "type of action" field should be empty and "Is combination" field should be marked as "Yes".
- It is not necessary to provide definition information for combinations.
- **While creating the combination, it is essential to use the pre-defined terms separated with a semi-colon** (e.g. Aluminium; Steel).

The below screenshot shows an example data for "Is combination" for *Structures and Components* table. In this example, the first few rows are existing combinations and the row in

yellow is a ***new combination entry*** as 3 defined *Structures and Components* names (Pump, Valve and vessel) are combined together into one row and separated by a semi-colon.



	A	B	C	D
1	Type of Action	Name	Definition	Is Combination
89		diesel generator (EDG)		
90		Jet impingement shield; Masonry walls; Other miscellaneous structure; Pipe whip restraint; Support for platform		
91		Piping; Pump; Tank		
92		Piping; Pump; Valve		
93		Piping; Tank		
94		Piping; Tubing; Valve		
95		Piping; Valve		
96		Protection relay; Relay		
97		Pump; Valve		
98		Tank; Vessel		
99		Pump; Valve; Vessel		Yes
00				

AMR Entry Template Structure

Details of the sheets and fields in each sheet are described below:

Sheet 1: Submission details

This sheet captures meta-information about the submission process. These details are stored during the Excel import process, but do not appear in the public database.

Fields and descriptions:

Field Name	Description	**Notes**
Name	Name of the expert filling in the AMR data	
Email Address	Email of the expert submitting the AMR data	
Submission Date	Date of submission in the format YYYY-MM-DD	
Remarks	Any general comments or notes by the user	Include any remarks about the addition/modification to AMRs & Remarks about the addition/modification to dynamic data. Names of modified sheets along with the details of modifications made can be entered here. *e.g. AMPs - 'new AMPXXX and the related definitions on sheets were developed'* *Include information about the relevant task (e.g. action item) that lead to the AMR data modification.*
IGALL Phase	IGALL Phase number	Phase in which the data is submitted

Sheet 2: AMR-Table

This sheet contains the selected and downloaded AMR lines. Changes to AMR lines (including new records) can be submitted via this sheet. The information will be validated by the IAEA coordinator and approved by the relevant Working Group (WG) chairperson before it is published in the IGALL database together with all changes at the end of the given IGALL phase.

Fields and descriptions:

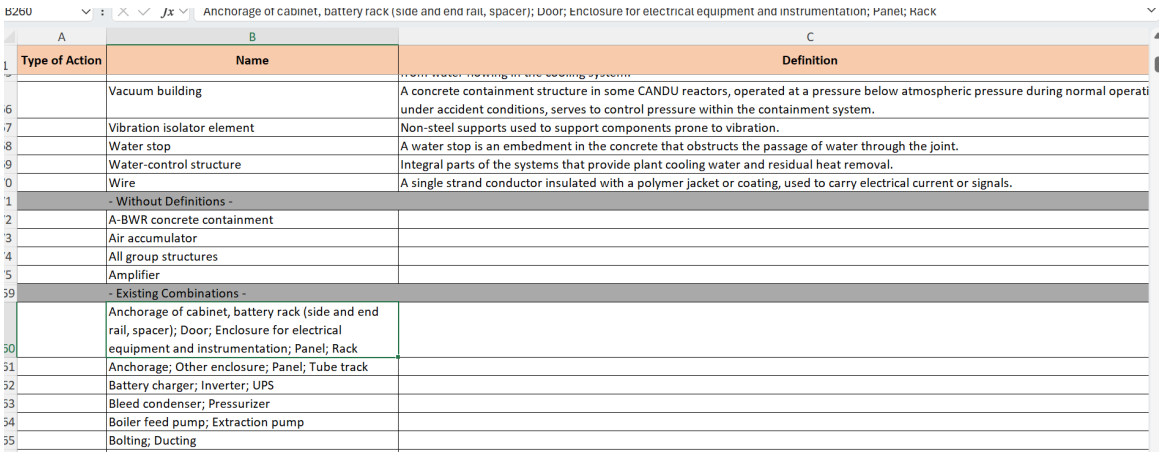
Field Name	Description	Notes

Type of Action	Indicates whether the entry is "New" or "Modify" or “Deletion”	This field is **MANDATORY** for any new AMR or AMR modification. Should be selected from dropdown for “New”, “Modify” or “Delete”. If this is left blank, then this row will not be processed in the IGALL database.
Action item	Identifier of the Action Item of the given IGALL phase under which the proposed changes were developed.	This field is mandatory. Typical format example: 3.07
Table No.	IGALL table number to which the change belongs to	Select from dropdown menu
IGALL No.	Identifier from existing IGALL AMR table	Should be blank for new AMR entries and should NOT be changed for existing entries
System	System name	Data entered in these columns are selected from dropdown menus derived from the pre-defined look up dynamic data in sheets 4 to 13. Data should ONLY be entered by using the dropdown menus. If information is not available from the pre-defined dropdown, manual entry in subsequent sheets should be done (e.g. defining the needed item or combination of items) thereafter the new item can be selected from the dropdown. Combinations of data can also be selected from the defined sets, except for ageing effect. Exactly one ageing effect is allowed in one line.
Structure/Component	Structure(s)/Component(s) as per defined dynamic data	
Critical location/part	Critical location/part as per defined dynamic data	
Material	Material(s) as per defined dynamic data	
Environment	Environment(s) as per defined dynamic data	
Ageing effect	Ageing effect as per defined dynamic data	
Degradation mechanism	Degradation mechanism(s) as per dynamic data	
Ageing management programme (AMP)	Ageing management programme(s) applied as per dynamic data	
Time limited ageing analysis (TLAA)	Time limited ageing analysis(es) (TLAA) applicable as per dynamic data	
Design	Design(s) for which the AMR line is applicable	

Sheets 3 to 12: Dynamic data and additional lookup sheets

These sheets provide standard values for dropdowns or lookups in the AMR-Table (2nd sheet). All **lookup sheets in the template are populated with data fetched from the IGALL database**.

The lookups contain the complete set of entries available in the database at the time of download, ensuring consistency, eliminating outdated values, and supporting accurate validation during the import process. These lookup sheets contain the list of structures and components, critical locations, materials, environments, ageing effects, and degradation mechanisms (with definitions when relevant) and the combinations used in the AMR lines of the IGALL database. Individual entries are separated from the combinations with a row highlighted in grey as shown in the below example. In the combinations the individual items must be separated by semicolons.



	A	B	C
1	Type of Action	Name	Definition
6		Vacuum building	A concrete containment structure in some CANDU reactors, operated at a pressure below atmospheric pressure during normal operati under accident conditions, serves to control pressure within the containment system.
7		Vibration isolator element	Non-steel supports used to support components prone to vibration.
8		Water stop	A water stop is an embedment in the concrete that obstructs the passage of water through the joint.
9		Water-control structure	Integral parts of the systems that provide plant cooling water and residual heat removal.
10		Wire	A single strand conductor insulated with a polymer jacket or coating, used to carry electrical current or signals.
11		- Without Definitions -	
12		A-BWR concrete containment	
13		Air accumulator	
14		All group structures	
15		Amplifier	
59		- Existing Combinations -	
60		Anchorage of cabinet, battery rack (side and end rail, spacer); Door; Enclosure for electrical equipment and instrumentation; Panel; Rack	
61		Anchorage; Other enclosure; Panel; Tube track	
62		Battery charger; Inverter; UPS	
63		Bleed condenser; Pressurizer	
64		Boiler feed pump; Extraction pump	
65		Bolting; Ducting	

Each of the following sheets acts as a controlled vocabulary and reference list for dropdowns/ validation in the AMR-Table.

System

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the system (i.e. no change to the given system or definition).
Name	Name of the *System*	Populated from IGALL database.
Definition	N/A	*Systems* are not defined in IGALL.
Is Combination	N/A	Combinations are not allowed for system

Structure/component

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the system (i.e. no change to the given system or definition). Modification can be made to the name or the definition.
Name	Name of the S*tructure/component*	Populated from IGALL database.
Definition	Definition of the *structure/component*	Populated from IGALL database. Not mandatory field.
Is Combination	"Yes" or "No" indicating if this line contains a combination of multiple entries. Blank value is considered as “No”.	Set to “Yes” when a combination of more than one structure/component is defined, by entering multiple entries separated with semicolon.

Critical Location/part

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the system.

		Modification can be made to the name or the definition.
Name	Name of the *Critical location/part*	Populated from IGALL Database
Definition	Definition of the *Critical location/part*	Populated from IGALL database. Not mandatory field
Is Combination	"Yes" or "No" indicating if this line contains a combination of multiple entries. Blank value is considered as “No”.	Set to “Yes” when a combination of more than one critical location/part is defined, by entering multiple entries separated with semicolon.

Material

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the system. Modification can be made to the name or the definition.
Name	Name of the *Material*	Populated from IGALL Database
Definition	Definition of the *Material*	Populated from IGALL database. Not mandatory field
Is Combination	"Yes" or "No" indicating if this line contains a combination of multiple entries. Blank value is considered as “No”.	Set to “Yes” when a combination of more than one material is defined, by entering multiple entries separated with semicolon.

Environment

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the system. Modification can be made to the name or the definition.
Name	Name of the *Environment*	Populated from IGALL Database
Definition	Definition or explanation of *Environment*	Populated from IGALL database. Not mandatory field
Is Combination	"Yes" or "No" indicating if this line contains a combination of multiple entries. Blank value is considered as “No”.	Set to “Yes” when a combination of more than one environment is defined, by entering multiple entries separated with semicolon.

Ageing effect

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the system. Modification can be made to the name or the definition.

Name	Name of the *Ageing effect*	Populated from IGALL Database.
Definition	Definition or explanation of *Ageing effect*	Populated from IGALL Database. Definitions are mandatory for any new *Ageing effects*
Is Combination	N/A	Combinations must not be used for ageing effects. One AMR line must contain exactly one ageing effect.

Degradation Mechanism

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the system. Modification can be made to the name or the definition
Name	Name of the *Degradation Mechanism*	Populated from IGALL Database
Definition	Detailed definition or explanation of *Degradation Mechanism*	Populated from IGALL Database Definitions are mandatory for any new *Degradation Mechanism.* Combinations need not be defined.
Is Combination	"Yes" or "No" indicating if this is a combination of multiple entries. Blank value is considered as “No”.	Set to “Y” when a combination of more than one degradation mechanism is defined, by entering multiple entries separated with semicolon.

AMP

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the system. Modification can be made to the name
Name	*Ageing management programme (AMP)* number and title	Populated from IGALL Database
Document URL	Reference URL for the *AMPs*	Link to the AMP at GNSSN IGALL portal Should not be modified.
Is Combination	"Yes" or "No" indicating if this is a combination of multiple entries. Blank value is considered as “No”.	Set to “Y” when a combination of AMPs is defined, by entering multiple entries separated with semicolon.

TLAA

Field Name	Description	**Notes**
Type of Action	One of: New, Modify, Delete	Rows without “type of action” will not be processed by the database. Modification can be made to the name.
Name	*TLAA* number and document name	Populated from IGALL Database

Document URL	Reference URL for the *TLAA*	Link to the TLAA at GNSSN IGALL portal. Should not be modified.
Is Combination	"Yes" or "No" indicating if this is a combination of multiple entries. Blank value is considered as “No”.	Set to “Y” when a combination of TLAAs is defined, by entering multiple entries separated with semicolon.

Design

The list of designs are complete, all combinations exist, do not edit this sheet! The IGALL coordinator should be consulted If any change is needed.

Table

The list of IGALL tables is complete, do not edit this sheet! The IGALL coordinator should be consulted if any change is needed.