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CONTACT THE ENGINEERING STANDARDS COMPONENT NOMENCLATURE POC

for upkeep, interpretation, and variance issues

Ch. 1, 230	**ESM Component Nomenclature POC and Committee**

REVISION RECORD

Rev	Date	Description	POC	RM
0	9/26/01	Initial issue as part of Section 230, Component Nomenclature.	Tobin Oruch, *FWO-SEM*	Mitch Harris, *FWO-SEM*
1	5/22/02	Adopted additional acronyms used frequently at LANL historically.	Tobin Oruch, *FWO-SEM*	Kurt Beckman, *FWO-SEM*
2	11/18/02	Eliminated unused/hardly-used historical acronyms, added shop equipment, other IDs	Tobin Oruch, *FWO-SEM*	Kurt Beckman, *FWO-SEM*
3	2/9/04	Added/clarified several fire acronyms.	Tobin Oruch, *FWO-DO*	Gurinder Grewal, *FWO-DO*
4	8/16/04	No change to actual IDs from Rev. 3. Became single, rev-controlled appendix to 230 with the 3 lists as attachments. Future revisions do not require ESB meeting prior to approval by Chief Engineer.	Tobin Oruch, *FWO-DO*	Gurinder Grewal, *FWO-DO*
5	5/18/05	Moved general numbering/labeling requirements to new Section 200. Added BAL-balance; CBE-circuit brkr enclosed; CNTR-contactor; CO-cleanout; FD-floor drain; SDS-shower, decon; TRP-trap.	Tobin Oruch, *ENG-CE*	Gurinder Grewal, *ENG-CE*
6	2/1/06	Added AFP-Argus Field Panel, ATT-Attenuator (sound, etc.), BTRY-Battery or Battery Box, CRU-Condensate Recovery Unit, FCU-Fan Coil Unit, FPE-Fall Protection Equipment, FTB-Field Termination Box. Deleted FAX-Filter, Air, Rigid (sic; Riga) Flow. OST became ISD 342-1.	Tobin Oruch, *ENG-CE*	Mitch Harris, *ENG-DO*
7	10/27/06	IMP and ISD number changes based on new Conduct of Engineering IMP 341. Other administrative changes.	Tobin Oruch, *CENG*	Kirk Christensen, *CENG*

230 EQUIPMENT/COMPONENT FUNCTIONAL IDS

1.0 PURPOSE AND USE

This Section contains the equipment and component functional IDs to be used in naming equipment and components as described by Section 200. The IDs are sorted three ways to facilitate selection and use:

Attachment 1: Description Sort -- Component function IDs sorted by description

Attachment 2: Discipline Sort -- Component function IDs sorted by most commonly associated discipline, then description

Attachment 3: ID Sort -- Component function IDs sorted by ID

NOTE: The listings include a "Discipline" indicator. It represents the engineering discipline most commonly associated with the ID. This is included to aid ID selection, particularly in Attachment 2 which is sorted by discipline first; however, this discipline categorization does not preclude using the acronym for disciplines other than that indicated.

2.0 REQUIREMENTS

1. When a new project's manager prefers to use historically used acronyms, this can be allowed by the ESM Chapter 1 POC with written permission.
2. When an item is not listed in Section 230, contact the ESM Component Nomenclature POC for assistance.

   The POC's process for resolution should be:

   - *Determine if one of the referenced national standards, another national standard, and/or a printout of historically used acronyms lists a unique and suitable 6-character-maximum Function ID for the component (Section 230 has many common components, not the entire set).*
   - *Choose an appropriate Function ID weighing historical precedent against national standard alignment.*
   - *Grant the requestor provisional OK to use it, and initiate a revision to listing.*
3. In general, when a new component function is reasonably similar to a recognized component/ID, use the recognized Function ID rather than devising a new one.
4. For electrical utilities: The numerical designations from IEEE 803.1 (e.g., "52" can be used on electrical utility drawings but alpha acronyms are generally preferable).

3.0 ATTACHMENTS

Attachment 1: Component Function IDs – Sorted by Description

Attachment 2: Component Function IDs – Sorted by Predominant Discipline, then Description

Attachment 3: Component Function IDs – Sorted by ID

ENDNOTES

Standards used in these listings:

- ASME Y14.38a-2002, *Abbreviations and Acronyms*
- ASPE – Am Soc Plumbing Engrs *Data Book Ch 21*
- IEEE 803.1-92, *Recommended Practice for Unique Identification in Power Plants and Related Facilities - Component Function Identifiers*
- IEEE 1015-97, *IEEE Recommended Practice for Applying Low-Voltage Circuit Breakers Used in Industrial and Commercial Power Systems(Blue Book)*
- IEEE 1100-99, *Recommended Practice for Powering and Grounding Electronic Equipment (Emerald Book)*
- ISA 5.1-92, *Instrumentation Symbols and Identification (reaffirmation of ISA S5.1)*
- NECA 100-99, *Symbols for Electrical Construction Drawings*
- NFPA 170-06, *Standard for Fire Safety Symbols*
- CMMS file showing current usage of acronyms

The process to produce the equip-comp listings was:

A comprehensive listing of components was produced from national standards, CMMS, D. T. Bush memo FSS-9/MM-95-048, and the 1999 LANL drafting and engineering standards manuals. This was then thinned to include the most commonly used and expected components. Historically used IDs in widespread use were retained. This was augmented by IEEE 803.1.

- For instruments, if IEEE referenced ISA, then ISA was listed as the source.
- For electrical/I&C, when 803.1 did not provide sufficient granularity or did not list a component, it was augmented by ISA, NECA, or IEEE 1100.
- For mechanical, ASME was used to augment IEEE; NFPA and NECA provided fire-related IDs in rare instances. ASPE Data Book Ch 21 provided some plumbing acronyms.

Finally, in a few rare cases, it was necessary to modify national acronyms where the above documents were non-unique from one to the next (e.g., the instrument “Final Element, Flow” was designated FE@ and reflected as “5.1mod” to distinguish it from “Fan, Exhaust” which is commonly designated “FE” at LANL). IEEE C37.2-1996, *Standard Electrical Power System Device Function Numbers and Contact Designations*, was reviewed and found to duplicate the device numbers in IEEE 803.1; likewise an informative listing in Annex E of NFPA 79-1997, *Electrical Standards for Industrial Machinery*, was reviewed but not utilized.