NUMBERING SYSTEM
(PROJECT STANDARDS AND SPECIFICATIONS)

TABLE OF CONTENT

SCOPEx 2
REFERENCES 2
DEFINITIONS AND TERMINOLOGY 2
SYMBOLS AND ABBREVIATIONS 3
UNITS 3
ASSIGNMENT AND APPLICATION OF EQUIPMENT AND MATERIAL NUMBER 3
EQUIPMENT NUMBERING SYSTEM 4
INSTRUMENT AND CONTROL EQUIPMENT NUMBERING SYSTEM 6
ELECTRICAL EQUIPMENT NUMBERING SYSTEM 9
COMMUNICATION EQUIPMENT NUMBERING SYSTEM 10
PIPING LINE NUMBERING SYSTEM 11
BUILDING AND STRUCTURE NUMBERING SYSTEM 12
NUMBERING OF PROJECT SPECIFICATIONS AND DATA SHEETS 14
DRAWINGS NUMBERING SYSTEM 15
INQUIRY REQUISITIONS, PURCHASE ORDERS AND SUBCONTRACTS NUMBERING SYSTEM 19
VENDOR DATA NUMBERING SYSTEM 21
ENGINEERING DISCIPLINES AND PROJECT SECTIONS CODING 22
APPENDIX A 24
APPENDIX B 26
APPENDIX C 31
APPENDIX D 35
APPENDIX E 36
APPENDIX F 37
APPENDIX G 38
APPENDIX H 39
APPENDIX I 44
APPENDIX J 45
SCOPE

This Project Standards and Specifications prescribes equipment and material numbering system including numbering for instrument and electrical equipment, piping line and engineering documents such as specifications, purchase orders, and other facilities.

REFERENCES

Throughout this Standard the following dated and undated standards/codes are referred to. These referenced documents shall, to the extent specified herein, form a part of this standard. For dated references, the edition cited applies. The applicability of changes in dated references that occur after the cited date shall be mutually agreed upon by the Company and the Vendor. For undated references, the latest edition of the referenced documents (including any supplements and amendments) applies.

1. ISA (INSTRUMENT SOCIETY OF AMERICA)
   

2. ISO (International Organization for Standardization)


DEFINITIONS AND TERMINOLOGY

Contractor - The persons, firm or company whose tender has been accepted by the "Employer", and includes the contractor’s personnel representative, successor and permitted assigns.

Project - The equipment, machinery and materials to be procured by the "Contractor" and/or "company" and the works and/or all activities to be performed and rendered by the "Contractor” in accordance with the terms and conditions of the contract documents.

Unit or Units - One or all process, offsite and/or utility Units and facilities as applicable to form a complete operable refinery/ and or plant.
SYMBOLS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>SYMBOL/ABBREVIATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD</td>
<td>Building</td>
</tr>
<tr>
<td>CRD</td>
<td>Crude</td>
</tr>
<tr>
<td>DN</td>
<td>Diameter Nominal, in (mm)</td>
</tr>
<tr>
<td>HVAC</td>
<td>Heating Ventilation and Cooling</td>
</tr>
<tr>
<td>LG</td>
<td>Level Gage</td>
</tr>
<tr>
<td>PDB</td>
<td>Distribution Panel Board</td>
</tr>
<tr>
<td>PFD</td>
<td>Process Flow Diagram</td>
</tr>
<tr>
<td>P &amp; IDs</td>
<td>Piping and Instrument Diagrams</td>
</tr>
<tr>
<td>PO</td>
<td>Purchase Order</td>
</tr>
<tr>
<td>PS</td>
<td>Pipe Support</td>
</tr>
<tr>
<td>PSV</td>
<td>Pressure Safety Valve</td>
</tr>
<tr>
<td>SI</td>
<td>System International</td>
</tr>
<tr>
<td>TEL</td>
<td>Tetra Ethyl Lead</td>
</tr>
</tbody>
</table>

UNITS

This Standard is based on International System of Units (SI) except where otherwise specified.

ASSIGNMENT AND APPLICATION OF EQUIPMENT AND MATERIAL NUMBER

Assignment of Equipment and Material Number

Equipment and material number shall be assigned to process equipment, package Units, tanks, civil constructions, buildings, structures, electrical equipment, instruments, piping, etc., including their auxiliaries as detailed as practical to secure a uniform identification of the equipment throughout the project.

Application of Equipment and Material Number

1. Documents and Drawings

   a. Equipment and material number shall be fully utilized in engineering documents and drawings such as Process Flow Diagram (PFD), Plot Plan, Piping and Instrument Diagrams (P & IDs), Equipment Data Sheets, Instrument Data Sheets, etc.
b. Vendor’s documents including drawings, data sheets, etc., shall bear equipment and material number.

c. Shipping documents shall fully utilize equipment, and material number.

d. Equipment and material number shall be assigned for spare parts.

e. Equipment Name Plate and Tag Number Stamping or equipment and material number in the name plate or the tag number shall be made except for certain minor bulk items such as fire hydrants, etc.

**EQUIPMENT NUMBERING SYSTEM**

**Main Equipment & Package Unit**

Main Equipment and Package Unit shall be numbered in the following manner.

<table>
<thead>
<tr>
<th>Equipment Category symbol</th>
<th>L</th>
<th>G</th>
<th>01</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>(alphabet symbol)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(including suffix if any)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unit number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 or 2 digits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>serial number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(note 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alphabet symbol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(From A to Z for duplicate/triplicate, etc.)

**Notes:**

1) Unit number for the equipment shall start from 1 (not from 01). For a typical refinery units see Appendix A.

2) Serial number for equipment including mechanical, machinery, electrical, ancillary facilities, buildings, general items, etc., shall be from 01 to 99 unless otherwise specified. The numbering of instruments and control equipment should be from 001 to 999. For the units with more than one section (e.g., crude and vacuum distillation unit, etc.), equipment serial number to be utilized for each section shall be determined by the Contractor (e.g., from 01 to 50 and from 50 to 99 to crude distillation and vacuum distillation sections respectively).
Drivers for Main Equipment

Drivers for main equipment shall be numbered as follows:

<table>
<thead>
<tr>
<th>Equipment number</th>
<th>Type of Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>C - 601 A</td>
<td>M</td>
</tr>
</tbody>
</table>

**Note:**
Type of drivers shall be as follows:
- DE : Diesel Engine
- GE : Gas Engine
- GT : Gas Turbine
- HT : Hydraulic Turbine
- M : Electric Motor
- ST : Steam Turbine
- TEX: Turbo Expander.

Auxiliary Equipment of Package Units

<table>
<thead>
<tr>
<th>Package Unit Number</th>
<th>C - 601 A</th>
<th>P</th>
<th>I</th>
<th>M</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Auxiliary Equipment Category code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(From 1 to 99)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alphabet Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>(From A to Z for duplicate/triplicate etc.)</td>
</tr>
<tr>
<td>type of driver</td>
</tr>
</tbody>
</table>

**Note:**
Serial number for auxiliary equipment in package unit shall start from 1 (not from 01).
INSTRUMENT AND CONTROL EQUIPMENT NUMBERING SYSTEM

Instrument and Control Equipment

Instrument and control equipment including Pressure Safety Valve (PSV) shall be numbered in the following manner:

Instrument type

Unit designation (see Note)

Instrument Sequence No. (001 and up), see Note 2

alphabet symbol (From A to Z for more than one same functional instrument in the same loop)

Note:

Unit designation for the instrument equipment shall start from 1 (not from 01). For a typical refinery units see Appendix A.

Instrument Accessories and Locations

Instrument control Equipment Code (see Note 1 below)

Unit Number or control room Number (see Note 2 below)

Serial Number (001 and up)

alphabet symbol (From A to Z for more than one function requirement)
Notes:

1) Equipment code should comply as follows:
   a) Equipment located in Control Room
      PNL : Panels for DCS, FCS Computer and etc.
      PDB : Distribution Panel Board
      MRB : Marshaling box
      ESD : Emergency shut down panel
   b) Equipment located at field
      JBE : Junction Box (Electronic)
      JBT : Junction Box (Thermocouple)
      JBZ : Junction Box (Shut-Down/Alarm)
      JBR : Junction Box (Thermoresistance)
      JBP : Junction box (Power Supply)
   c) Multi cable
      MCE : Electronic
      MCT : Thermocouple
      MCZ : Shut-Down/Alarm/Power Supply
      MCR : Thermoresistance
      MCP : Power Supply
      DHW : Data High Way (Sectional Indication)

2) Unit number for items "b" and "c" above, and control room number for item a above. Unit number shall start from 1 (not from 01). For typical refinery units see Appendix A.

3) For all the equipment located in the control room, the relevant drawings and data sheets shall have proper tagging or marking showing the unit numbers.
Gage Glasses Designation

1. Gage glasses numbering system

Gage glasses shall be numbered as mentioned above and the following example:

```
level Gage glass
  Unit Number
  serial Number
  (001 and up)
  repetition symbol

LG - 2  001  A
```

2. Special feature of gage glasses

Special feature of the gage glasses shall be presented beside the gage glasses in the drawings according to the following abbreviations:

a. Type
   R = Reflex
   T = Transparent

b. Material of Cocks
   M = Monel Trim Cocks
   SS = Stainless Steel

c. Steam/Electrical Trace Requirement
   ST = Steam Traced
   ET = Electrical Trace
Example:

<table>
<thead>
<tr>
<th>Number of Gauge glass section</th>
<th>S</th>
<th>T</th>
<th>M</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(see &quot;a&quot; above)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>material of gaskets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(see &quot;b&quot; above)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tracing requirement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(see &quot;c&quot; above)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ELECTRICAL EQUIPMENT NUMBERING SYSTEM

Numbering for Main Electrical Equipment

Main Electrical Equipment which compose primary power distribution system, power supply to process equipment, instrument power supply and supervisory system, shall be numbered in the following manner:

<table>
<thead>
<tr>
<th>Unit designation</th>
<th>EE</th>
<th>01</th>
<th>01</th>
<th>TX</th>
<th>01</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sub station Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(01 and up), use 00 for power plant and 90 for all others not within sub station</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment category code</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment sequence Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(01 and up)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alphabet symbol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A to Z for more than one same Equipment, if any)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Numbering for Other Electrical Equipment

Panel boards and other electrical equipment shall be numbered in the following manner:
KLM Technology Group  
Project Engineering Standard  

NUMBERING SYSTEM  
(PROJECT STANDARDS AND SPECIFICATIONS)  

<table>
<thead>
<tr>
<th>Building Number or Unit Number</th>
<th>BD-701</th>
<th>DP</th>
<th>01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Category Code</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serial Number</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(01 and up)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example:
BD 701-DP02 Distribution panel board No. 02 located in the building No. BD-701.

COMMUNICATION EQUIPMENT NUMBERING SYSTEM

Communication equipment shall be numbered in the following manner:

<table>
<thead>
<tr>
<th>System Distinction</th>
<th>TL</th>
<th>BD 701</th>
<th>EX</th>
<th>01</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Per item A shown in Appendix G)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Number or Unit Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Per article 12 or Appendix A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Category Code</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Per item B shown in Appendix C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serial Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(01 and Up)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PIPING LINE NUMBERING SYSTEM

Piping lines shall be numbered in the following manner:

1. Numbering of All Lines Excluding Steam Tracing Spools

<table>
<thead>
<tr>
<th>Fluid Abbreviation</th>
<th>CRD - 1 - 0001</th>
<th>A - 100 (4&quot;) - STOW</th>
<th>1-DN100 (1-3/8&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 or 2 digits, see Note 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>serial No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0001 and Up, see Note 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>piping Class Code</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(See Note 2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 to 3 Alphabet symbol)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal pipe size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation or tracing symbol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity and size of tracers</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:

1) Piping serial number, in general is started from 0001 and Up except for the units which are characterized by more than one section such as crude and vacuum distillation unit. In such cases, split of piping serial numbers to be assigned for each section of the unit shall be determined by the Contractor.

Special number 7001 : 9999 shall be used for all drains, relief headers and utility services including fuel oil and fuel gas for all units except for the units which are producing the subject utility services.

For assigning the piping serial number, the following items should be taken into consideration:

a) Pipe line numbers shall be prefixed, from source to unit battery limit with the unit number of the unit of origin.

b) The individual line number shall be held up to the point where the line ends at the inlet of equipment such as a vessel, exchanger, pump, etc., an other number is required for the line downstream of the equipment.
c) A new line number is required when the pipe design condition can vary (e.g., downstream of the control valve assembly) or when a new piping class is to be specified.

d) Line number shall be held up to the point where the line ends to the header or unit battery limit block valve. All branches to and from header shall have an individual line number.

e) All utility headers (systems) shall be numbered with their respective units. All branches serving a specific unit will be numbered with that unit.

f) All firewater and sewer branches serving a specific unit shall be numbered in accordance with note above.

2) Piping class code shall be in accordance with the line classes utilized in project piping material specification.

3) Piping components not identified by instrument or mechanical equipment numbers, etc., and not covered by the piping material specification, are identified by a special item number.

4) Unit number of the plant shall start from 1 (not from 01). For a typical refinery units see Appendix A.

2. Steam Tracing Spools

For steam tracing numbering and material take off, the contractor can use his own system.

BUILDING AND STRUCTURE NUMBERING SYSTEM

Numbering for Buildings and Analyzer Houses

<table>
<thead>
<tr>
<th>Building</th>
<th>Unit Number</th>
<th>Serial Number</th>
</tr>
</thead>
</table>

(Note 1)

(Note 2)

(01 and Up), see note 1 under article 7.1 above
Notes:
1) Use "BD" for building and "AH" for analyzer house.
2) Unit number for buildings and analyzer houses shall start from 1 (not from 01), see, Appendix A.

Numbering for Structure
Structure and pipe rack shall be numbered in the following manner:

<table>
<thead>
<tr>
<th>structure identification</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Note 1)</td>
<td></td>
</tr>
<tr>
<td>Unit Number</td>
<td></td>
</tr>
<tr>
<td>serial Number</td>
<td></td>
</tr>
<tr>
<td>(01 and Up)</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1) Structure Identification
   AT = Antenna Tower
   BD = Building, Shelter
   CB = Catch Basin
   CPS = Concrete Pipe Sleeper
   MH = Sewer Manhole
   MP = Miscellaneous Platform
   PB = Pull Box
   PBC = Pipe Box Culvert
   PS = Pipe Support
   SL = Stiles
   SS = Steel Structure
2) Structure numbering shall be South to North and West to East.
NUMBERING OF PROJECT SPECIFICATIONS AND DATA SHEETS

Numbering of Project Specifications
All project specifications shall be assigned a number as per the following example:

```
SP  - XXXX  -  7D or IN  -  1

project Number (see Note)
Cost Code Number or Disciplines Coding
Sequence Number
(1 and Up)
revision Number
```

Note:
The number of digits can be varied upon project number requirement.

Numbering of Data Sheets
All data sheets shall be assigned a number as per the following example:

```
DS  - 79 of IN  -  21  -  001  -  1

Data sheet
cost code number or Disciplines Coding
Unit number
(see Note)
serial number
(001 and Up)
revision Number
```

Note:
Unit number shall start from 1 (not from 01), see Appendix A.
Cost Code Numbers

<table>
<thead>
<tr>
<th>Cost Code No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Excavation and Grading</td>
</tr>
<tr>
<td>10</td>
<td>Concrete</td>
</tr>
<tr>
<td>20</td>
<td>Structural</td>
</tr>
<tr>
<td>30</td>
<td>Buildings</td>
</tr>
<tr>
<td>40</td>
<td>Machinery and Equipment</td>
</tr>
<tr>
<td>41</td>
<td>Field Fabricated Vessels</td>
</tr>
<tr>
<td>42</td>
<td>Shop Fabricated Vessels</td>
</tr>
<tr>
<td>43</td>
<td>Compressors and Generators</td>
</tr>
<tr>
<td>44</td>
<td>Exchangers</td>
</tr>
<tr>
<td>45</td>
<td>Fired Heater and Boilers</td>
</tr>
<tr>
<td>46</td>
<td>Pumps</td>
</tr>
<tr>
<td>47</td>
<td>Material Processing Equipment</td>
</tr>
<tr>
<td>48</td>
<td>Material Handling Equipment</td>
</tr>
<tr>
<td>49</td>
<td>Miscellaneous Equipment</td>
</tr>
<tr>
<td>50</td>
<td>Piping</td>
</tr>
<tr>
<td>60</td>
<td>Electrical</td>
</tr>
<tr>
<td>70</td>
<td>Instrumentation</td>
</tr>
<tr>
<td>80</td>
<td>Insulation and Protective Coatings</td>
</tr>
<tr>
<td>90</td>
<td>Welding and Unclassified</td>
</tr>
</tbody>
</table>

DRAWINGS NUMBERING SYSTEM

Drawing Sizes
Drawing sizes to be used are:

<table>
<thead>
<tr>
<th>Size Designation</th>
<th>Drawing Dimensions (mm x mm)</th>
<th>Title Block Size (mm x mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A4</td>
<td>210 x 297</td>
<td>-</td>
</tr>
<tr>
<td>A3</td>
<td>297 x 420</td>
<td>75 x 120</td>
</tr>
<tr>
<td>AG</td>
<td>297 x 630</td>
<td>-</td>
</tr>
<tr>
<td>AF</td>
<td>297 x 840</td>
<td>-</td>
</tr>
<tr>
<td>A2</td>
<td>420 x 594</td>
<td>100 x 155</td>
</tr>
<tr>
<td>A1</td>
<td>594 x 841</td>
<td>130 x 175</td>
</tr>
<tr>
<td>A0</td>
<td>841 x 1189</td>
<td>180 x 190</td>
</tr>
</tbody>
</table>
Note:
The final (As Built) isometric drawings shall include the material take off table and should be in A3 size.

**Drawing Scales**
Drawings scales shall be any of the following:

1: 10  
1: 20  
1: 25  
1: 33-1/3  
1: 50  
1: 100  
1: 250  
1: 500  
1: 1000  
1: 2500 (Overall Plot Plan Only)

**Numbering of Drawings**

Drawings except drawings for buildings shall be numbered in the following manner.

```
Refinery/plant location

Unit Number

serial Number (Note 1)

sequential No./total NO.
(Note 2)
size designation
```
Notes:
1) Two drawings may have the same serial number but different unit number.
2) When drawings have the same title and function, they shall have the same serial number and shall be identified by using Sequential No./Total No.

Numbering of Isometric Drawings

Numbering of Isometric Drawings shall be the same as the piping line number which is shown on the Isometric Drawing.

```
+-------------------+-------------------+-------------------+
piping line No.     sequential No./total No.  (for requirements more than one for same line, if needed)
+-------------------+-------------------+-------------------+
CRD-01-0011 A  1/3
```

Numbering of Project Standard Drawings

Project standard drawings shall be numbered as follows:

```
+-------------------+-------------------+-------------------+-------------------+
Refinery/plant location standard drawing  Serial No.  sequential No./Total No.  (Note 1) size Designation
+-------------------+-------------------+-------------------+-------------------+
AK - SD - 5001 - 1/4 - A1
```

Note 1:
For requirements more than one for same functions, if needed.
Numbering of Drawings for Buildings

Drawings for buildings shall be numbered as follows:

```
Refinery/plant location

Unit Number

Building Number

Drawing Category

progressive drawing Number

size designation
```

Notes:
1) Two drawings may have the same building serial number, and drawing category, but different unit number.
2) Progressive drawing number from 01 to 99 per each unit and/or building serial number and/or drawing category.
Numbering of Drawings for Temporary Buildings

Temporary buildings drawings shall be numbered as follows:

Refinery/ plant location

temporary

serial Number

(000 1 and Up)

sequential No./Total No.

For more requirements than one for same function if needed

size Designation

INQUIRY REQUISITIONS, PURCHASE ORDERS AND SUBCONTRACTS

NUMBERING SYSTEM

All inquiry requisitions, purchase orders and subcontracts shall be identified by means of the following system:

project/contact No. (see Note)

letter

Commodity account No.

serial No.

Note:
The number of digits can be varied upon project number requirement.
Identification Letters:
- Inquiry Requisitions IR
- Purchasing Order PO
- Subcontracts SC
- Procedure PR
- List of Attachment LA
- List of Requested Document RD

Commodity Account No.:
- Civil 01
- Instrumentation 02
- Electrical 03
- Machinery 04
- Heaters 05
- Heat Exchangers (including reboilers, coolers, double pipe heat exchangers, coils, plate heat exchangers, etc.) 06
- Vessels, Towers or Drums 07
- Tanks and Spheres 08
- Package Units 09
- Miscellaneous Mechanical 10
- Piping 11
- Management 12
- Site Construction 13
- Miscellaneous 14

Serial Number:
- Field Issue 0001 - 0999
- Home Office Issue 1001 - 8999
- Reimbursable Items & Spare Parts 9001 – 9999
VENDOR DATA NUMBERING SYSTEM

Vendor data including drawings, spare parts lists, performance curves, operating and instrument books and miscellaneous items shall be numbered as follows:

```
<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>- Specification</td>
</tr>
<tr>
<td>DW</td>
<td>- Drawings</td>
</tr>
<tr>
<td>PC</td>
<td>- Performance Curves</td>
</tr>
<tr>
<td>FS</td>
<td>- Fabrication Schedule</td>
</tr>
<tr>
<td>DS</td>
<td>- Data Sheets</td>
</tr>
<tr>
<td>PR</td>
<td>- Procedures</td>
</tr>
<tr>
<td>CE</td>
<td>- Certificates</td>
</tr>
<tr>
<td>WS</td>
<td>- Welding Specification</td>
</tr>
<tr>
<td>IR</td>
<td>- Inspection Record</td>
</tr>
<tr>
<td>LS</td>
<td>- Lists (Lubricating oil, spare parts, etc.)</td>
</tr>
<tr>
<td>CA</td>
<td>- Calculations</td>
</tr>
<tr>
<td>SD</td>
<td>- Standard Drawings</td>
</tr>
<tr>
<td>MU</td>
<td>- Manuals</td>
</tr>
<tr>
<td>OT</td>
<td>- Others</td>
</tr>
</tbody>
</table>
```

Example:

```
XXXX-PO-04-XXXXA - DW 001
```

- **Purchase order No.**
- **Identification letter**
- **serial No.** (001 to 999)
ENGINEERING DISCIPLINES AND PROJECT SECTIONS CODING

Engineering Disciplines Coding

Generally, the following engineering disciplines are distinguished in carrying out a typical project, for which a two-letter code shall be used:

AC Heating, Ventilation, Air conditioning & Refrigeration Engineering
CI Civil Engineering (General) including Architectural Engineering
EL Electrical Engineering
GM General Machineries
GN General Heat and Mass Transfer Engineering (Thermal Equipment Engineering)
IN Instrumentation Engineering
ME Fixed Mechanical Equipment Engineering (Non Rotating Equipment Engineering)
PI Piping Engineering (General Mechanical and Interconnection Engineering)
PR Process and Chemicals Engineering
PV Pressure Vessel Engineering (Generally, Vessels Engineering)
RE and/or (PM) Rotating Equipment and/or (Process Machineries) Engineering
SF Safety, Fire Fighting & Environmental Control Engineering
ST Structural Engineering
TC Telecommunication Engineering
TP Technical Protection Engineering

Project Sections Coding

Besides to the above mentioned engineering disciplines and specialities, the following most general project sections are defined in two-letter codes and they shall be used in parallel with discipline codes, as required:

AC Accounting
CC Cost Control
CN Construction
DC Document Center
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FN</td>
<td>Finance</td>
</tr>
<tr>
<td>GN</td>
<td>General</td>
</tr>
<tr>
<td>PC</td>
<td>Project Coordination</td>
</tr>
<tr>
<td>PE</td>
<td>Project Engineering</td>
</tr>
<tr>
<td>PN</td>
<td>Planning</td>
</tr>
<tr>
<td>PM</td>
<td>Project Management</td>
</tr>
<tr>
<td>PQ</td>
<td>Procurement</td>
</tr>
<tr>
<td>QA</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>QC</td>
<td>Quality Control</td>
</tr>
</tbody>
</table>

Any other required code not mentioned above, may be added, but in the same rule, i.e., with a two-letter code, noting not to repeat the indicated cases.