Introduction

The purpose of this document is to provide Jefferson Lab employees with a standard system of unique names to represent specific pieces of equipment.

Up to nine alphanumeric characters are used to identify a particular equipment, its system, and its location. Nomenclature identification is used on drawings, schematics, computer software, and other sources of information. Nine characters or less is more efficient that a narrative description, such as: the sixth cavity in the thirteenth cryomodule in the South Linac.

Background

The Nomenclature Document was first published as part of CEBAF Technical note 91-083 in October 1991. Updated revisions were published and distributed in December 1992 and 1993. The document was converted to a menu-driven computer data base in 1994, which provided a search capability. The software was upgraded in March/April 1995 to include the capabilities to print or browse through the entire document. 1n 1996, the nomenclature was added to the JLAB web home page. In 2013, the document was converted to Excel and an equivalent PDF version. To access the nomenclature on the web, go to the site index and select C. Under C, look for CND (CEBAF Nomenclature Document). Select that option.

Description

All names have a maximum of nine characters, and all letters are upper case; i.e., capital letters. For convenience in the nomenclature document, the letters S V V X X Y Y Z Z are used to symbolize a nine-character name. The meaning of these letters is as follows:

S Technical System
VV Component Type
XX Sector or Subsystem
YY Locator
ZZ Element Number

A brief description of these five categories follows:

S --- Technical System: A single letter is used to symbolize a major system such as a C for cryogenics or M for magnets. The Associate Directors for Accelerator and Physics have final approval authority to add, change, or subtract symbols for technical systems.

VV -- Component Type: Two letters are used to symbolize component types such as CV for check valve or WP for water pump. All component types are associated with a technical system, and every three-letter combination must have a unique meaning. We try to minimize the instances of more than one meaning for the second and third characters, but there are a few exceptions. The Nomenclature Administrator has final approval authority to add, change, or subtract symbols for component types.

XX -- Sector or Subsystem: Two characters, which can be a number or letter in either position, are used to symbolize a location, a subsystem, or a large piece of equipment. For example, 1L is used for the North Linac, 29 is used for the vacuum system in the Cryogenic Test Facility, and 3E is used for the third extractor. Sectors and subsystems are not tied to a particular technical system. Not all technical systms use the XX positions. In which case, the positions are left blank. The Operations Manager has final approval authority to add, change, or subtract symbols for sectors and subsystems.

YY -- Locator: Two numbers are used to symbolize a location within a sector (XX), such as the sequential numbering of quadrupoles within a sector. All non-girdered components are numbered per the upstream quad.
Exceptions: Dipoles are numbered sequentially within a sector.
Cryomodules match the 'zone' number (first module is #2 and the last is #26). This number controls the upstream components.

ZZ -- Element Number: One or two letters or numbers are used to indicate the actual number of name of a component. The element number is tied to a locator and a technical system. An example of the usage of element numbers is using numbers 1 through 8 to indicate the cavities in a cryomodule. Using H to indicate a horizontal configuration for a beam position monitor is another example. The Operations Manager has approval authority to add, change, or subtract symbols for element numbers.

Example: IDA2C04
This is an Insertable Beam Stop in Line B of the BSY between quad girders 04 & 05. This is broken down as follows:

I	Instrumentation System
DA	Beam Stop, retractable
2C	Line 'B' - Beam Switchyard
04	Located down beam of the 4th Quad

S CODE	[Technical System Description]
C	Cryogenics
E	End Stations
F	Fluid System
H	Physic - Halls A,B & C
I	Instrumentation
M	Transport(Magnets)
N	Miscellaneous
O	Optical System
P	Power System
R	RF
S	Safety
V	Vacuum (Beam)
Z	test

S CODE	VV CODE	[Component Type System Description]
C	CA	Cryomodule
C	CH	Spare A&D channel
C	CT	Contamination
C	CV	Check valve
C	DP	Differential pressure
C	DS	Differential pressure switch
C	DT	Differential temperature
C	EV	Electric control valve
C	FC	Flow controller
C	FE	Flow element
C	FI	Flow indicator
C	HP	Compressor horsepower
C	HR	Heater control
C	HV	Hydraulic control valve
C	IT	Current transmitter
C	LL	Liquid level
C	LV	LVDT - same as RF
C	MV	Manual valve
C	OD	Oxygen level
C	PI	Pressure indicator
C	PS	Pressure switch
C	PT	Expander pressure tap
C	PV	Pneumatic control valve
C	PW	Expander power out
C	RD	Ready
C	RS	Reset
C	RV	Relief valve
C	SO	Stop
C	SP	Speed Expander, Cold Compressor, etc.
C	ST	Start
C	SV	Solenoid operated valve (on/off)
C	TC	Thermocouple vacuum gauge
C	TD	Diode thermometer
C	TI	Vapor pressure thermometer
C	TP	Platinum thermometer
C	TR	Carbon resistor thermometer
C	TS	Temperature switch
C	VI	Voltage indictor
C	WK	Expander work out (ratio PW/SP)
C	WM	Watt meter
E	TA	Polorimeter target chamber
F	CI	Conductivity Indicator
F	MI	Moisture Indicator

S CODE	VV CODE	[Component Type System Description]
F	PR	Pressure Regulating Valve
F	S6	SF6 System for FEL Injector
F	WP	Water Pump
I	AC	Annihilation Counter
I	BC	Beam Current Monitor
I	CM	IR FEL Buncher Cavity, 08111-E-0001
I	CP	Compton Polarimeter
I	CS	Channel Cesiator
I	CV	Yao cavity
I	DA	Beam stop, retractable
I	DC	IR FEL Beam Dumps, 07300-0001, 07300-0011, 07400-0005
I	DL	Beam dump, low power
I	DM	Driver Motor
I	DP	Calibration Puck Insertion Mechanism (Beam Dump)
I	EG	Extractor Gauge, Gun vacuum (Torr)
I	EL	Beam Envelope Limit System (BELS)
I	FA	Fiber Array
I	FY	Faraday Cup
I	GL	Polarized electron gun (Laser gun)
I	GT	Thermionic electron gun
I	HA	Profile analyser
I	HM	Beam Hallo Monitor - Hall C G-Zero 67229-56060
I	IA	IR FEL Hapek Device, 05140-E-0037
I	IC	Ionization Chamber
I	LM	Loss monitor
I	MS	IR FEL Multi-Slit o2.0 Shielded, 05122-E-0100
I	OC	Optics Controller
I	OF	Offset Monitor 66850-03959
I	OP	Optics Diagnostic
I	OR	Optical Transisition Radiation Monitor (OTR) 58432-0407
I	OS	Oscilloscope
I	OU	Optics Unit
I	PA	Pico ammeter, HV leakage current (PA)
I	PD	Beam Position Detector (Pavel Degtiarenko)
I	PH	Photon Harp
I	PM	Position monitor
I	RH	Relative Humidity Sensor
I	SC	Beam Scrapper
I	SD	Fast shutdown system
I	SL	Aperture (Slit)
I	SR	Synchrotron Radiation Monitor
I	ST	Slit
I	TG	Target Ladder

S CODE	VV CODE	[Component Type System Description]
I	TQ	Thermocouple
I	TT	Thermocouple Temperature Monitor
I	TV	Beam viewer
I	UN	Current (Klaus Unser) monitor
I	WC	Wiggler Controller
I	WD	Wiggler Diagnostic
M	AA	Dipole magnet 1B38W4/48 22161-E-0001
M	AB	Dipole magnet 1B38W4/52 22161-E-0101
M	AC	Dipole magnet 1B38W4/60 22161-E-0201
M	AD	Dipole magnet corr. 400 mA (CEBAF)
M	AE	Dipole magnet 1B38W4/56 22161-E-0401
M	AF	Dipole magnet 1B38W4/72 22161-E-0501
M	AG	Dipole magnet 1B38W4/52 22161-E-0601
M	AH	Dipole magnet 1B38W5/64 22161-E-0701
M	AI	Dipole magnet 1B38W5/72 22161-E-0801
M	AJ	Dipole magnet corr.400 mA (homemade coil)
M	AK	Dipole magnet 90 deg. 4.0 Amp (U. of Illinois)
M	AL	Dipole magnet 1B37W5/80 22161-E-1101
M	AM	Dipole magnet 1B38W5/96 22161-E-1201
M	AN	Dipole magnet 1B38W4/116 22161-E-1301
M	AO	Dipole magnet 1B38W4/48 22161-E-1401
M	AP	Dipole magnet 21116-E-0001
M	AQ	Dipole magnet 1.5B37W11/104 22161-E-1601 (Re-Named XQ)
M	AR	Dipole magnet 21117-E-0001
M	AS	Dipole magnet 1.9B36W17/84 22161-E-1801
M	AT	CEBAF-built Injector/Linac Air-core corrector
M	AU	Dipole magnet 1B77W3/52 22161-E-20001
M	AV	Dipole magnet 1B76W3/76 22161-E-2101
M	AW	Dipole magnet 1.5B37W11/120 22161-E-2201
M	AX	Dipole magnet 1.9B36W17/124 22161-E-2301
M	AY	Dipole magnet 1B38W5/52 22161-E-2401
M	AZ	445MeV Fast feedback corrector dipole magnet
M	BA	Dipole magnet 1B120W4
M	BB	Dipole magnet 1B80W4 22131-E-0001
M	BC	Dipole magnet 1B6W2.5 - Arc corrector 21115-E-0001
M	BD	Dipole magnet 1.5B6A2.5 Inj. corr. V=2112-E-0001, H=2112-E-0002
M	BE	Dipole magnet 1B40W4
M	BF	Dipole magnet 1.5B7W6 - 45 MeV beam dump magnet
M	BG	Dipole magnet 1B60W4/20
M	BH	Dipole magnet - Dual function Haimson corrector 1.00 AMP
M	BI	Dipole magnet 1.5B6A3 (stretched BD for FEL bypass)
M	BJ	Dipole magnet 1B120W3.5/40 - BSY dump dipole

S CODE	VV CODE	[Component Type System Description]
M	BK	Dipole magnet 1.5B6A2.5 - Saddle coil corrector
M	BL	Dipole magnet 1.5B12W2.5 - Chicane corrector 24121-E-0001
M	BM	Dipole magnet 2B6A2.5 - Ext corrector 21114-E-0001
M	BN	Dipole magnet 1B40W4/46
M	BO	Dipole magnet for 500 keV spectrometer
M	BP	Dipole magnet 1B80W4/26
M	BQ	Dipole magnet 1B40W4/26
M	BR	Dipole magnet 1B80W5 22751-D-0001
M	BS	Dipole mag.1.5B6W25L- Red fld corr V=21112-E-0101, H=21112-E-0102
M	BT	Dipole magnet 2B6 - Linac corrector 2113-D-0001
M	BU	Dipole magnet for unpolarized injector 90deg.-1.50AMP(CEBAF)
M	BV	5 MeV Spectrometer Dipole
M	BW	Dipole magnet 1B18W5/40 22161-D-2601
M	BX	Dipole magnet 1.5B37W11/60 22161-E-2701
M	BY	Dipole magnet 1B38W5/40 22161-E-2801
M	BZ	Dipole magnet 1.5B76W11/60 22161-E-2901
M	CC	Hall C Polarimeter Dipole
M	CD	Solenoid Dipole, Hall C Polarized Target
M	CF	Hall-A RCS Dipole, Tapered Gap, 20 cm. length
M	CJ	12" long air core magnet on 2" pipe @ 496.6 G-cm/Amp
M	CK	12" long air core magnet on 1" pipe @ 783.4 G-cm/Amp
M	CL	12" long air core magnet on 1" pipe @ 783.4 G-cm/Amp
M	CS	PEPPo Analyzing Solenoid
M	CV	12Gev Dipole, 11.5 pole 60 turn MAG0030015-0001
M	CW	12Gev Dipole, 5 pole 60 turn MAG0030013-0001
M	CX	12Gev H. Dipole, 11.5 pole 60 turn MAG0030014-0001
M	CZ	QD Panofsky quad wired as H/V corrector pair
M	DB	IRFEL Air Core Core. Hor. Corr. 4.925" ID, 8.5" long 07145-E-0001
M	DC	IRFEL V Corrector for 2h x 8w (in.) Chamber, FEL 07144-E-0001
M	DD	Drift space (reserved for optics codes)
M	DF	IRFEL H Corrector for 2h x 8w (in.) Chamber, FEL 07143-E-0001
M	DG	IRFEL H Phase Trim Dipole, 2h x 6w (in.) Chamber, FEL 07142-E-0001
M	DH	IRFEL Air Core. Hor. or Vert. Corr. 4.510" ID, 8.5" long 07141-E-0001
M	DI	IRFEL Double BM Dipole.Drawing 07138-E-0001
M	DJ	IRFEL Air Core. Vert. Corr. 5.479" ID, 8.9" long 07146-E-0001
M	DK	1-1/16 gap 4x4 pole 5" eff lgth, r51 in. bend MAG0030009-0000
M	DN	Corrector Magnet 3" X 12". 21112-E-0201
M	DQ	IRFEL Reverse Bend Dipole.Drawing 07137-E-0001
M	DS	Dipole magnet, Polarized source, 15 degree bend

S CODE	VV CODE	[Component Type System Description]
M	DT	Injector Dipole, 3D Line
M	DU	IRFEL Short Injection Dipole. Drawing 07131-E-0001
M	DV	IRFEL Long Injection Dipole. Drawing 07132-E-0001
M	DW	IRFEL Optical Cavity Dipole. Drawing 07133-E-0001
M	DX	IRFEL Reverse Bend Dipole. Drawing 07134-E-0001
M	DY	IRFEL 180 Degree Bend Dipole. Drawing 07135-E-0001
M	DZ	Modified BZ - 4.5in gap,2m lg,10.504 wide 22161-3001
M	EC	Injector 10 turn, 14 gaug, 380cm X 30cm Air Core
M	ED	Injector 10 turn, Air Core between Choppers
M	EE	Injector 10 turn, Air Core, Chopper to Qtr Cyro
M	EW	FEL 'DW' with 3.3 gap
M	FA	Focusing lens (solenoid) 1.5 Amp CEBAF
M	FB	Focusing lens (solenoid) 3.0 Amp (U. of Illinois)
M	FD	5 MeV Mott dipole
M	FF	Injector Test Stand Solenoid. Drawing 09120-E-0001
M	FG	Chopper (8 cm bore) Injector Test Stand Solenoid. Drawing 09121-E-000
M	FH	Focusing lens (solenoid), 2.5" bore bakeable
M	FJ	Focusing Lens (solenoid),9.7"Lg, 1040 Turns, Injector
M	FK	Injector Kicker,4coil,36 turns ea.,2 wire 18 turns/coil
M	FL	Focusing Lens (solenoid), injector
M	FP	Focusing Lens (solenoid), injector
M	FQ	Focusing lens (polarized source)
M	FR	Half focusing lens (polarized source)
M	FS	5 MeV Mott solenoid
M	GA	IR FEL,Corrector Vertical 7.50 gap (07111-0009)
M	GB	IR FEL,Air Core Corrector, 300Gcm (
M	GC	IR FEL,Corrector 'SF' Vertical (MAG0020001-0000)
M	GD	IR FEL,Corrector Dispersion Vertical
M	GF	IR FEL,Corrector 'GQ' Horizontal (MAG0020005-0000)
M	GG	IR FEL, Corrector Length (MAG0020010-0000)
M	GH	IR REL, Trim Corrector Horizontal for GQ
M	GQ	IR FEL, Dipole 3.33 Gap, 30 deg. face angle (MAG0030001-0000)
M	GR	IR FEL, Dipole 3.33 Gap, mini Optical chicane (MAG0030005-0000)
M	GS	IR FEL, Dispersion Magnet (MAG070001-0000)
M	GU	IR FEL, Dipole 3.00 Gap, parallel face (MAG0030006-0000)
M	GV	IR FEL, Dipole 3.00 Gap, 0 deg. face angle (MAG0030007-0000)
M	GW	IR FEL, Dipole 3.31 Gap, 10 deg ent angle 20 deg bend (MAG0030002-0000
M	GX	IR FEL, Dipole 3.33 Gap, 30 deg face angle (MAG0030003-0000)
M	GY	IR FEL< Dipole 2.365 Gap, 180 deg bend (MAG0030004-0000)

S CODE	VV CODE	[Component Type System Description]
M	GZ	IR FEL,Air Core Corrector,Horiz.2.75 gap 07142-0003
M	HB	1.5 in. ID Haimson corrector
M	HC	Air-core dipole corrector for 30 Hz System
M	HD	Air core corrector for A1
M	HE	Injector Helicity Air Core Corrector - Litz Wire
M	HH	Air Core Corr. 191g cm/A dwg 07140-0201
M	IM	Air Core dipole, 25 turns, injector, dwg 21123-D-001
M	KR	Hall C Moeller Kicker, 5.5" lg,12 turn litz wire
M	LA	Lambertson magnet 22440-E-0001
M	MA	Magnet - Line "A" Moeller dipole (Los Alamos) 500 Amp
M	OT	IR FEL, Octapole (MAG0080001-0000)
M	PA	Generic Steering Coil Magnet (Horiz. & Vert.)
M	PC	PEPPo Dipole Sectrometer Magnet
M	PD	PEPPo Capture Solenoid Magnet
M	PT	PEPPo Diagnostic Solenoid Magnet
M	PS	Pair Spectrometer - Hall B
M	QA	Quadrupole magnet 1Q12W 22232-E-0001
M	QB	Quadrupole magnet 2Q6WS 21122-E-0001
M	QC	Quadrupole magnet 2Q12W 22253-E-0001
M	QD	Quadrupole magnet 1.5Q6WC 24212-E-0001
M	QE	10Q36 Quadrupole (Argonne)
M	QF	Los Alamos Quadrupole
M	QG	IRFEL 2.12 in. bore, 6 in long, sparse lamination Quad. Drawing 07121
M	QH	IRFEL 2.12x7.5 in. bore, 6 in. long, Panofsky Trim Quadupole. Drawin
M	QI	IRFEL Panofsky Quad, 4 in. bore, 6 in. long. dwg 07124-E-0001
M	QJ	Quadrupole magnet 1.5Q3W 24212-E-0101
M	QL	Double quadrupole magnet made from two QAs
M	QM	1 kw quadrupole magnet, Hall A, 14 inch square
M	QN	Double quadrupole magnet made from two QCs
M	QO	1 kw quadrupole magnet, Hall A, 21 inch square
M	QP	1.625 bore, 12 inch long Quad-MAG0050016-0001
M	QR	1.125 bore, 18 inch long Quad-MAG0050016-0001
M	QS	Air Core Corrector, 20 turns,5.0 Amp, dwg 22126-0002
M	QT	IR FEL - Quad - Panofsky (trim) 6.0 long, 3.0 bore MAG0050010-0000
M	QU	40% tap on 'QA' - 1.125 bore, 12.0 inch long
M	QV	40% tap on 'QA' - 1.125 bore, 12.0 inch long
M	QW	Air Core for Wein Filter, 4-50 turn coils
M	QX	IR FEL, Quad o3.0 bore, 6.0 lg (MAG0050001-0000)
M	QZ	(old FEL QS) 5.18 ctr,50 turns/coil, 16g/A
M	RA	Fast Raster Dipole Magnet, 1.5R8.66W1.5/25200

S CODE	VV CODE	[Component Type System Description]
M	RC	Slow Raster Dipole Magnet, 1.5R15.75W6.5/400
M	RE	IR FEL,Raster H/V
M	RG	Hall 'C' GEN Raster Magnet-400 Ampere turns, .57 ohm
M	RJ	Dump Raster, Hall C, Alum. Wire, 6"Dx21"L, 80 total turns
M	RK	Line C 8.0in Kicker, 12 Turns Litz Wire
M	SA	Sextupole magnet 1S6 22312-E-0001
M	SB	Sextupole magnet 2S6 22312-E-0101
M	SC	IRFEL Sextupole magnet. Drawing 07122-E-0001
M	SE	60Hz Raster/3phase motor 252/365g cm/A dwg 07111-0021
M	SF	IR FEL, Sextapole (MAG0060001-0000)
M	SG	Modified 'SC' dble (MAG0060006-0001)
M	SN	Hall 'C' ENGE Splitpole Magnet (HNSS Experiment)
M	SP	Hall 'C' Splitter Dipole (HNSS Experiment)
M	SQ	ACC-45o Quad, IR FEL 45o Air Core Skew Quad 48g/A 2coils 100 turns ea.
M	SU	IR FEL Air Core Skew Quad, 32.5 g/A (old SQ) MAG0050012-0002
M	SX	Air Core Corr. 4.83g cm/4A 50 turns dwg 07140-0221
M	TE	IR FEL Trim for WE, 2.8micron MAG0070004-0040
M	VH	Bidirectional corrector
M	VT	Air Core Corr. 85g cm/A 100 turns 07140-0231
M	WA	IRFEL 40 Period Wiggler
M	WB	IR FEL, 10 KW Wiggler (MAG0070002-0000) Northup Grumman Sk-500-B1-5A
M	WE	IR FEL, 2.8micron EM 10KW Wiggler MAG0070004-1000
M	WF	Wien filter magnet
M	WI	Wiggler
M	WT	IR FEL, Trim Corrector 'WB'
M	YA	Septum magnet 1Y40W02 22421-E-0001
M	YB	Septum magnet 1Y40W25 22431-E-0001
M	YR	Septum magnet 1Y80W25 22441-E-0001
M	XQ	Dipole, (was AQ) MAG0030010-2701
N	CI	Conductivity indicator
N	MI	Moisture indicator
N	WP	Water pump
O	CR	Autocorrelator
O	DO	Optical Dump
O	FM	Flipper-Actuated Mirror
O	GA	Residual Gas Analyzer - FEL
O	GF	High Voltage Power Supply (Optical)
O	KM	Kinematically-Mounted Mirror
O	LC	Laser Collimator
O	LP	IR FEL, Laser Positioning Monitor (DIA0010300-0000)

S CODE	VV CODE	[Component Type System Description]
O	LT	Laser Terminator - Diagnostic Laser Beam Dump
O	LZ	Laser Length in Z, Cavity Length Monitor
O	MC	Cassette Mirror
O	MG	Cavity Mirror, Gimbal Mount
O	MM	Mirror Metrology, Optical Cavity Mirror Metro Sys (OCMMS)
O	MX	Transport Mirror
O	NF	Optical Attenuation Filter
O	PC	Picomotor
O	PL	Pulse Selector (Pockels Cell)
O	PO	Optical Power
O	SM	Optical Spectrometer
O	TM	Turning Mirror
O	UV	IR FEL, Ultra Viewer
O	XM	IR FEL, Insertable Mirror
P	AL	Alignment System, Laser Straightness
P	AR	Alignment System, Rotary Encoder
P	BI	Bogie Drive Inner Enclosure
P	BM	Bogie Drive Middle Enclosure
P	BO	Bogie Drive Outer Enclosure
P	CB	Control Crate, Bogie Drive System
P	CP	Control Crate, Position Control
P	DI	Superconducting Dipole Magnet (Wang)
P	HP	Horizontal Positioning System
P	Q1	Quadrupole Q1
P	Q2	Quadrupole Q2
P	Q3	Quadrupole Q3
P	RD	Dump Raster Magnet
P	RR	Raster Driver
P	RT	Target Raster Magnet
P	TC	Target, Scattering Chamber
P	VP	Vertical Positioning System
R	CA	Cryomodule
R	DE	Arc detector
R	DR	Tuner drive
R	FP	Field probe
R	HO	High Order Mode (remove excess RF)
R	HR	Heater
R	IA	RF Injector Acc. Capture Cavity (0I06)
R	IB	RF Injector Buncher (0I05 region)
R	IH	RF Injector Choppers (Qty2 0I03 & 0I04)
R	IN	RF Injector Pre-Buncher(1I06, added 4/97)
R	IR	Infrared detector
R	LS	Limit switch

S CODE	VV CODE	[Component Type System Description]
R	LV	LVDT
R	MT	Magnetostrictive tuner
R	PZ	Piezos Step Motor Control
R	RF	R/F/Separator (2E region)
R	S1	Single module RF separator
R	S2	Double module RF separator
R	S3	Triple module RF separator
R	SH	Shunt
S	BC	Beam Current Monitor
S	CB	Intercom call-in station
S	CM	CCTV camera
S	HN	Intercom horn
S	IC	Slow Beam Loss Ion Chamber
S	ID	Card reader
S	IW	Insertable Diffuser Window
S	KB	Key exchange box
S	LD	Beam Loss Detector
S	MD	Message display
S	OH	ODH Warning horn
S	OL	ODH Warning light
S	OM	ODH Monitor
S	PN	Card reader local control panel
S	RB	Boundary radiation monitor
S	RH	Radiation warning horn
S	RL	Radiation warning light
S	RM	Area radiation monitor
S	RS	Run/Safe box
S	SK	Intercom Speaker
S	SS	SLAC Beam Stop
S	TL	Telephone
V	BV	Slow vacuum valve - automatic
V	CG	Cold cathode gauge
V	CP	Cryo pump
V	DP	Differential pressure
V	EP	Electrostatic precipitator
V	FV	Fast vacuum valve - automatic
V	GP	Getter pump
V	IG	Ion gauge
V	IP	Ion Pump
V	MP	Mechanical Pump
V	MV	Manual valve
V	PG	Pirani gauge
V	RP	Roughing pump

S CODE	VV CODE	[Component Type System Description]
V	RV	Roughing Valve
V	TP	Turbo Pump (modified from VTB)
V	TC	Thermocouple vacuum gauge
V	TG	Trigger gauge
V	VV	General vacuum valve - automatic

XX CODE	[Sector or Subsystem System Description]
--	Hall A Dump Line
0F	IRFEL Injector (Injector Test Stand)
0G	IRFEL Injector Dump
0L	Injector
0V	FEL Drive Laser
1F	IRFEL Linac
1G	IRFEL Extraction Dump & Chicane
1L	North Linac (3L, 5L, 7L, 9L may be used to indicate higher passes
1P	Compton Polarimeter line in Hall A stub tunnel
1V	IR FEL Optical Cavity,Transport,Control Rm & Labs
2F	FEL 1st Reverse Bend
2G	FEL Straight Ahead Dump
2L	South Linac YY: cryomodule #:02, 03, 04, 05, etc.
2V	UV FEL Optical Cavity, Transport,Control Rm & Labs
3F	FEL Backleg
3V	FEL Tera Hz Experiment
4F	FEL Optical Cavity (Wiggler)
4V	FEL X-Ray Experiment
54	FEL-TL CHL Bayonet Can
55	FEL-TL Expansion Can
56	FEL-TL East End
5F	FEL 2nd Reverse Bend
5V	FEL Helios Experiment
6V	FEL Experiment -TBD-
71	Hall A Spectrometer, Electron Arm
72	Hall A Spectrometer, Hadron Arm
74	Hall A Target
75	Hall A Transfer Line
7D	Energy Recovery Line - So Linac
7V	FEL Experiment - TBD-
82	Hall B Polarized Target
8V	FEL Experiment -TBD-
9D	Hall C Dump Line
9V	FEL Experiment - TBD-
EA	East Arc
ER	Energy Recovery Qtr & Half Chicane
OC	FEL Optical Cavity
OT	FEL Optical Transport (includes Drive Laser)
PD	Polarized dump line
RB	Recirculation in the pre-accelerator
TD	Hall B Tagger Dump Line
WA	West Arc
--	Hall A Dump Line

XX CODE	[Sector or Subsystem System Description]
0	Compressor - System Control
1	Compressor - #1
2	Compressor - #2
3	Compressor - #3
4	Compressor - #4
5	Compressor _ #5
6	Compressor - #6
8	Compressor - Purifier System
9	Compressor - Guard Vacuum System
11	Refrigerator - High Pressure Stream
12	Refrigerator - Medium Pressure Stream
13	Refrigerator - Low Pressure Stream
14	Refrigerator - Cold Compressor Stream
15	Nitrogen System
16	LHe Dewar, TL, and Pump
17	Oil System
18	Nitrogen System
19	Vacuum System
20	CTF System Control
21	CTF Compressor - #1
22	CTF Compressor - #2
23	CTF Compressor - #3
24	CTF Cold Box - #1 & He Distribution
25	CTF Cold Box - #2
26	CTF Cold Box - #3
27	CTF R & D
28	CTF Purifier System & N2 System
29	CTF Vacuum System
40	NW End of TL
41	Tee Area of North Linac TL
42	NE End of TL
43	North Linac CHL Expansion Boxes
44	Supply and Return Headers
50	SW End of TL
51	Tee area of South Linac TL
52	SE End of TL
53	South Linac CHL Expansion Boxes
60	ESR System Control and Gas Return
61	ESR Compressor #1
62	ESR Compressor #2
63	ESR Compressor #3
64	ESR Compressor #4
65	End Station TL

XX CODE	[Sector or Subsystem System Description]
66	ESR Refrigerator
67	ESR Valve Box
68	ESR Purifier
69	ESR Vacuum System
70	Hall A Gas Return
80	Hall B Gas Return
81	Hall B CLAS
85	Hall B TL
90	Hall C Gas Return
91	Hall C Spectrometer #1
92	Hall C Spectrometer #2
93	Hall C Spectrometer #3
95	Hall C TL
D3	Hall C Dump
1H	Hall A
2H	Hall B
3H	Hall C
T3	Hall C Target
D1	Hall A Dump
D2	Hall B Dump
SD	Fast shutdown system
0I	Unpolarized injector
0R	Recombiner between pre-accelerator and the north linac
1A	First Arc - lowest energy line
1C	Transport Channel to end station A
1D	Spectrometer beam line in the 500 KeV section
1E	First Extractor - lowest energy line
1I	Polarized injector
1R	First Recombiner - lowest energy line
1S	First Spreader - lowest energy line
2A	Second Arc - lowest energy line
2C	Transport Channel to end station B
2D	Spectrometer beam line in the 5 MeV section
2E	Second Extractor - lowest energy line
2R	Recombiner between second arc and north linac
2S	Second Spreader - lowest energy line
2T	Transport Channel Two
3A	Third Arc - next energy line
3C	Transport Channel to end station C
3D	5 MeV Mott Polarimeter dump line
3E	Third Extractor - next energy line
3M	Moller polarimeter, Line 3C
3R	Third Recombiner - next energy line

XX CODE	[Sector or Subsystem System Description]
3S	Third Spreader - next energy line
4A	Fourth Arc - next energy line
4C	Dump beam line in BSY stub
4D	Spectrometer beam line in the 45 MeV section
4E	Fourth Extractor - next energy line
4R	Recombiner between fourth arc and north linac
4S	Fourth Spreader - next energy line
4T	Transport Channel Four
5A	Fifth Arc - next energy line
5D	Spectrometer beam line at position 1L26 (removed)
5E	Fifth Extractor - next energy line
5R	Fifth Recombiner - next energy line
5S	Fifth Spreader - next energy line
6A	Sixth Arc - next energy line
6D	Dump beam line at 142 degree in east arc (removed)
6E	Sixth Extractor - next energy line
6R	Recombiner between sixth arc and north linac
6S	Sixth Spreader - next energy line
6T	Transport Channel Six
7A	Seventh Arc - next energy line
7E	Seventh Extractor - next energy line
7R	Seventh Recombiner - next energy line
7S	Seventh Spreader - next energy line
8A	Eighth Arc - next energy line
8D	Dump beam line at end of injection chicane at 0R07 (temporary)
8E	Eighth Extractor - next energy line
8R	Recombiner between eighth arc and north linac
8S	Eighth Spreader - next energy line
8T	Transport Channel Eight
9A	Ninth Arc - highest energy line
9E	Ninth Extractor - highest energy line
9R	Ninth Recombiner - highest energy line
9S	Ninth Spreader - highest energy line
AS	Transport Channel Dipole bridge to Transport Channel Ten
AT	Transport Channel Ten
EO	Spectrometer beam line in the 500 Ke V section
NS	Dump beam line in north stub
RC	Recirculation chicane in the pre-accelerator

XX CODE	YY CODE	[Locator System Description]
0	0	Location description
0	1	Location description
3	0	Locator Description 00
3	1	Location description 01
0L	0	Reflects no upstream quad up to this point in this sector/subsystem.
0L	IN	Distributed skew quad in the injector magnet system
1L	0	Location description reflrcts no upstream quad up to this point in this sector or subsyste
1L	1H	Distributed skew quadrupole in 1st half of linac magnet system.
1L	2H	Distributed skew quadrupole in the injector in the magnet system.
1L	YY	Reflects no upstream quad up to this point in this sector or subsystem.
2L	0	Reflects no upstream quad up to this point in this sector or subsystem.
2L	1H	Distributed skew quadrupole in the injector in the magnet system.
2L	2H	Distributed skew quadrupole in the 1st half of linac in the magnet system.
2L	IR	First cryyomodule is #2; the last is #26.
2L	YY	The cryomodule number which matches the "zone" number the 1st cryomodule is #02,the last i
71	MT	Servomotor S-4075-RH04AN, Bogie Enclosures.
71	TC	Trim Coil Power Supply
72	MT	Servomotor S-4075-R-H04AN, Bogie Enclosures.
72	TC	Trim Coil Power Supply.
D3	0	Location Description or Element Number
EA	MU	Make up water flow
EA	RL	Return line
EA	SL	Supply line
WA	MU	Make up water flow
WA	RL	Return line
WA	SL	Supply line

ZZ CODE	[Element Numbers System Description]
A	Second identical component with the same YY design
H	Horizontal Corrector Dipole
LW	LCW water system, Accelerator
V	Vertical Corrector Dipole
0	Element number description
1	Element number description
2	Element number description
0	Element number description
1	Element number description
1	Cavity number
2	Cavity number
1	Element number description