semi | Standards

SEMI Draft 5155B FDP & BIM Guide

Technical And Editorial Comments

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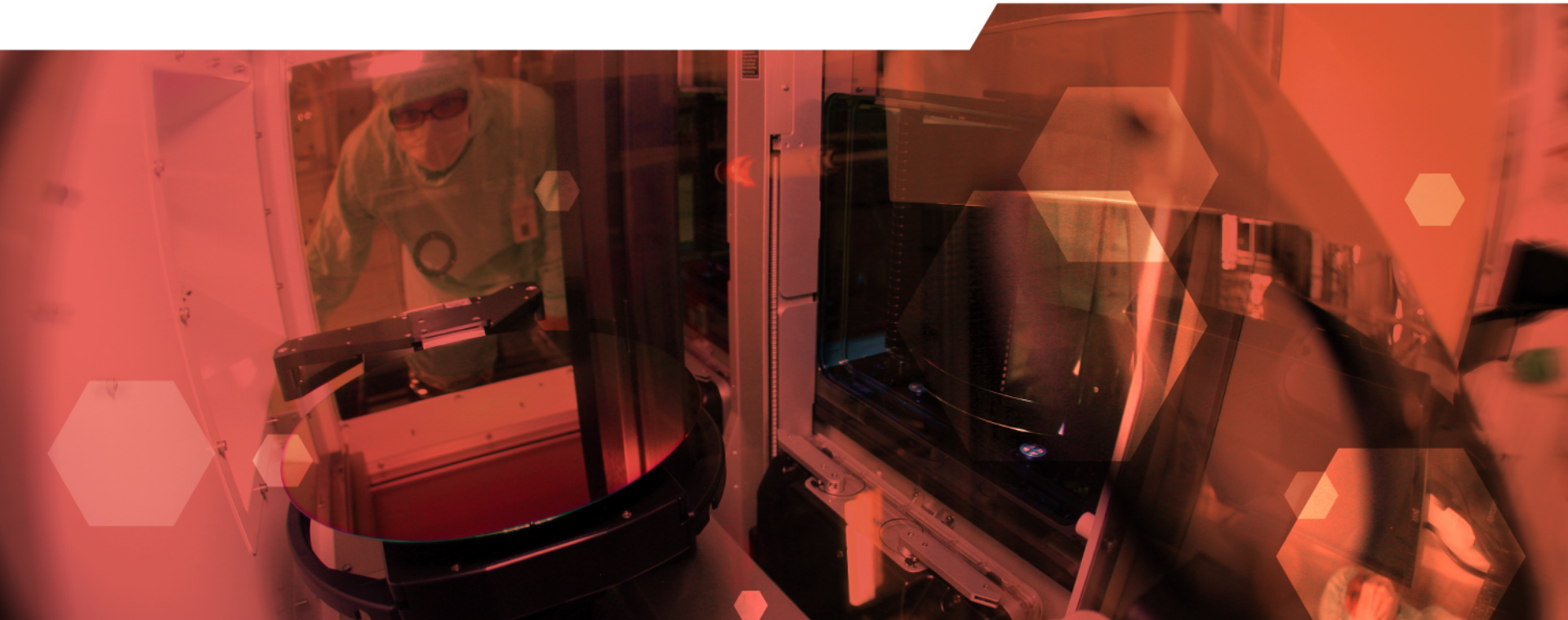

General Editorial Comments

- Inconsistent use of POC & EPOC (Equipment). Is FPOC (Facility) needed?
- Inconsistent use of “tool” and “equipment”. Should all references be to “equipment”?
- Inconsistent use of "Equipment Name" and "Equipment Component Name" in the data tables. When referring to "Fully Assembled Tool Or Support Equipment“, should we use “Equipment Name” and not “Equipment Component Name”?

Sections 7 & 8, Page 3

7 Facilities Data Package Content Recommendations

7.1 The Facilities Data Package (FDP) should document all the necessary interface information to enable modeling of the tool within a factory model.

7.2 The FDP should include: a 3-D Model Shell, a 2-D Facilities Installation Template, and a set of Data Sheets which provide detailed information on each connection. (See § 8 through 10.)

7.3 The Equipment Supplier's native 3-D Source Model should be used to create the 3-D Model Shell, 2-D Facilities Installation Template, and any plan, elevation, or isometric view of the equipment."

8 3-D Model Shell Overview

8.1 The first element in a FDP should be a 3-D Model Shell.

8.2 The 3-D Model Shell is a 3-D model provided as a shell without internal features (see Figure 1).

NOTE 1: For ease of use, the file size of this 3-D Model Shell should be under 80 GB.

8.3 All points of connections (POCs) will be a part of the 3-D model.

8.4 POCs for different utilities should be on separate CAD layers as agreed to between the equipment supplier and the customer.

8.4.1 Table 1 below shows the suggested layers with recommended layer names.

8.4.2 It is acceptable to add additional layers for ease of development and clarity.

8.5 It is recommended that any proprietary features and/or information be kept to a minimum.

8.6 The 3-D Model Shell should be in a '.dwg' format.

~~8.7 The 3-D Model Shell should be used to create any plan, elevation or isometric view of the equipment.~~

8.7 The 3-D Model Shell should contain a 3-D equipment datum object. The equipment datum should be a 3-D object, such as a sphere or cube, with the center of the object placed at the intended XYZ datum coordinate.

Sections 8, Table 1 Layers, Page 4

Section 18 Clearance Types

- Mechanical Service
- Electrical Code
- Haz Mat Handling
- User Interface
- Routing (Installation)
- Door/Panel
- Maintenance
- Installation (Y/N)

Table 1 Recommended Layer Names

Layer Type	*Recommended Layer Name*
Outline	G-EQPM-OTLN
General Dimensions	G-ANNO-DIM
Datum	A-EQPM-DATUM
Door Swing Clearance	A-ACCS-DOOR
Electrical Clearance	A-ACCS-ELEC
Maintenance Clearance	A-ACCS-MECH
Foot Load	S-EQMP-POC-FOOT
Suggested Floor Cutout	S-EQMP-CTOT
Electrical POC	E-EQPM-POC-ELEC
Water POC	M-EQPM-POC-WATR
Drain POC	M-EQPM-POC-DRAIN
Gas POC	M-EQPM-POC-GAS
Process Chemical POC	M-EQMP-POC-PCHM
Vacuum POC	M-EQMP-POC-EVAC
Exhaust POC	M-EQMP-POC-EXHS

Error?
A-ACCS-MAIN?
Do we need more clearance layers to match Section 18 Clearance Data Sheets?

Power

S-EQPM-HOLD
Hold Down and restraint connections (seismic, etc.)

E-EQPM-POC-BOND
Electrical bonding/EMI POC

E-EQPM-POC-CTRL
Signal POC

Highlighted should be EQPM (typ 5)

Are these all "EPOC"?