Record of Line-item Letter Ballot Review by TC Chapter for Procedural Review

Region/Locale: Korea
Global Technical Committee: Information & Control
TC Chapter Cochairs: Chulhong Ahn/ SK hynix, Hyungsu Kim/ Doople, Kelvin Lee/ Lam Research
Standards Staff: Natalie Shim

	Scheduled in Background Statement	Actual
Date	02/01/2018	02/01/2018
Location	#305, Coex, Seoul	#305, Coex, Seoul

Note: See *Regulations* ¶ 9.5 Exception for allowable reason to change.

Document Information

I. Document Number, Title, Lists of Line Items

Document Number	Document Title
4946D	Line Item Revisions to SEMI E87-1017, Specification for Carrier Management (CMS) and E87.1-1017 Specification for SECS-II Protocol for Carrier Management (CMS); Add Carrier Ready To Unload Prediction Feature

List of Line Items	Line Item 1	Line Item Title Add Carrier Ready To Unload Prediction Feature

Line Item 1 Adjudication

II. Tally

Standards staff to fill in.

Voting Tally: As-cast tally after close of voting period

Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (*Regulations* ¶ 9.7.1.1)

Voting Tally (with example values):

Voting Interest:	Returned Vote		Distribution		Return Rate		
Letter Ballot	73	÷	120	=	60.8%	≥60%	
Intercommittee Ballot	47						
Voting Interest Reject(s)	10		Total Voters with Rejects		13		
Voting Interest Accept(s)	48						

A&R Ballot Report Template (Line Item) Revision 1.4

III. Rejects
Voting Interest Reject 1 (Voting Interest Name: TEL)
Voter Reject 1 (Voter: Naoko Murata)
Negative 1

<table>
<tr><td rowspan="4">Negative</td><td rowspan="2">Referenced Section/ Paragraph</td><td colspan="4">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td></tr>
<tr><td colspan="4">Overall</td></tr>
<tr><td rowspan="2">Negative Text</td><td colspan="4">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td></tr>
<tr><td colspan="4">Functions of 4946 needs to be written as a New Standard or at least as an independent section in E87, and to clearly be states that they are optional. Because;

• Insufficient expression as optional definitions misleads readers, as those definitions are mandatory.

• Insufficient separation from existing E87 confuses readers, which parts are 4946 related.</td></tr>
<tr><td colspan="2">TF input (optional)</td><td colspan="4"></td></tr>
<tr><td colspan="2" rowspan="2">Withdrawal (check one)</td><td>X</td><td colspan="2">No Negative withdrawal made by Voter.</td><td>GO TO "Related" subsection</td></tr>
<tr><td></td><td colspan="2">Withdrawal document received by Standards staff on</td><td>GO TO "Final" subsection → (A)</td></tr>
<tr><td>Related</td><td>Motion and Reason (check one)</td><td>X</td><td colspan="2">'Related' is mutually agreed upon. (Needs no motion.)</td><td>GO TO "Persuasive" subsection</td></tr>
<tr><td rowspan="2">Persuasive</td><td rowspan="2">Motion and Reason (check one)</td><td></td><td colspan="3">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td></tr>
<tr><td>X</td><td colspan="3">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td></tr>
</table>

	Reason	• 4946D is a logic-based implementation on Carrier Object. So, it is much easier for reader and user to understand when it is with existing CARREIR State Model Diagram rather than standing alone itself. It also gives uniformity to overall E87. • As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30 5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings:	

Attribute Name	Definition	Access	Rqmt	Form
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.)

5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute.

5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.

Motion by/ 2ⁿᵈ by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion	None

11 **Y**-0 **N**; Motion passed.

Result of Vote (check one)		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)		Y	**GO TO "Address by Technical Change Option" subsection**
		[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
		2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
	X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final

(check if applicable)		**(A)**	Withdrawn **(counted under h in disposition)**
		(B)	Not related **(counted under i in disposition)**
		(C)	Related and not persuasive (significant)

		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			Comment generated. **See Section V-(ii) Comment #**.	

Voting Interest Reject 1 (Voting Interest Name: TEL)
Voter Reject 2 (Voter: Mochizuki Tadashi)
Negative 1

<table>
<tr>
<td rowspan="3">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="3">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="3">N/A</td>
</tr>
<tr>
<td>Negative Text</td>
<td colspan="3">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.

About CaRTUPStatusi (SV), when there is no carrier at load port, the carrier object does not exist and the status of the CARRIER READY TO UNLOAD PREDICTION at the load port is "No State". In this case, the value is not defined.</td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="3"></td>
</tr>
<tr>
<td colspan="2">Withdrawal (check one)</td>
<td>X</td>
<td>No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td colspan="2"></td>
<td></td>
<td>Withdrawal document received by Standards staff on</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="1">Rela ted</td>
<td>Motion and Reason (check one)</td>
<td>X</td>
<td>'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td rowspan="5">Persuasive</td>
<td rowspan="3">Motion and Reason (check one)</td>
<td></td>
<td colspan="2">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
</tr>
<tr>
<td>X</td>
<td colspan="2">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
</tr>
<tr>
<td></td>
<td>Reason</td>
<td>If there is no carrier at load port, the value of CaRTUPStatusi (SV) is "PREDICTION DISABLED" and it is explained in Table 37 Variable Data Definitions as Enumerated definition.

19.2 Variable Data Definitions
Table 37 Variable Data Definitions

(table: Variable Name / Description / Type / Access / Comment)
CaRTUPStatus — State of the Carrier Ready To Unload Prediction. — Enumerated: PREDICTION DISABLED, WAITING FOR PREDICTION, PREDICTED, PREDICTION ABORTED, PREDICTION COMPLETED — RO
CaRTUPStatusi — The current state of the carrier's READY TO UNLOAD prediction at the i-th load port. — Enumerated: PREDICTION DISABLED, WAITING FOR PREDICTION, PREDICTED, PREDICTION ABORTED, PREDICTION COMPLETED — RO</td>
</tr>
<tr>
<td colspan="2">Motion by/ 2nd by</td>
<td colspan="3">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td>
</tr>
<tr>
<td colspan="2">Discussion</td>
<td colspan="3">None</td>
</tr>
<tr>
<td colspan="2"></td>
<td colspan="3">11 Y-0 N; Motion passed.</td>
</tr>
</table>

	Result of Vote **(check one)**		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** **(check one)**		Y	**GO TO "Address by Technical Change Option" subsection**
			[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
			2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
		X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Significant	**This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)**				
	Use of "Not significant finding option" **(check one)**	X	It is mutually agreed upon to term the Negative "not significant".		**GO TO "Final" subsection → (D)**

Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**	
			(B)	Not related **(counted under i in disposition)**	
			(C)	Related and not persuasive (significant)	
		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**		

Negative 2

Negative	**Referenced Section/ Paragraph**	***TF/TC Chapter to fill in, including text in the ballot if necessary.**		
		1.2.3		
	Negative Text	***Original complete Negative text (e.g., issue, justification, suggestion) should be copied.**		
		• This proposal is added not only new addition to section10.7.8 but also existing Carrier State Model (10.7.2, 10.7.3, 10.7.4) and Carrier Attribute Definition (10.3.4). • Currently Carrier Ready To Unload Prediction function is added as additional capabilities on Table 39. However, existing section 10 except for section 10.7.8 is "Fundamental Requirements". This is confusing whether this function is fundamental requests or additional capabilities. If it is an optional function, it should be clearly separated.		
TF input (optional)				
	Withdrawal **(check one)**	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
			Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Related	**Motion and Reason** **(check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**

Persuasive	**Motion and Reason (check one)**			Negative is related and persuasive. **(Needs >1/3 votes to pass.)**				
		X		Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**				
			Reason	• As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30 5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings: | Attribute Name	Definition	Access	Rqmt	Form
---	---	---	---	---
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.) | 5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute. 5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.				
	Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)						
	Discussion	None						
	Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.						
				[Negative is related and persuasive.] > 1/3	**Is a technical change recommended? (check one)**		Y	**GO TO "Address by Technical Change Option" subsection**
				[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
				2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
		X		90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			
Not Significant	**This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)**							
	Use of "Not significant finding option" (check one)	X		It is mutually agreed upon to term the Negative "not significant".		**GO TO "Final" subsection → (D)**		
Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**				
			(B)	Not related **(counted under i in disposition)**				
			(C)	Related and not persuasive (significant)				
		X	**(D)**	Not significant **(counted under j in disposition)**				

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		(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
		(F)	Addressed by technical change **(counted under k disposition)**	
(check if applicable)		Comment generated. **See Section V-(ii) Comment #**		

Negative 3

<table>
<tr><td rowspan="4">Negative</td><td rowspan="2">Referenced Section/ Paragraph</td><td colspan="3">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td></tr>
<tr><td colspan="3">1.2.2</td></tr>
<tr><td rowspan="2">Negative Text</td><td colspan="3">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td></tr>
<tr><td colspan="3">

• In this proposal, "CaRTUPSettingTime" and "CaRTUPTimeOut" are added as a carrier attribute. However, it is not defined what kind of service messages this attribute can be specified.

• I understand that you add to the 1st rules of 10.3.5 Rules for Carrier Attributes. However, I think that it is better to clarify what services can be specified for these attributes just like the 2nd rules of 10.3.5.
</td></tr>
</table>

TF input (optional)				

<table>
<tr><td rowspan="2">Withdrawal (check one)</td><td>X</td><td colspan="2">No Negative withdrawal made by Voter.</td><td style="background:#f8cdf0">GO TO "Related" subsection</td></tr>
<tr><td></td><td colspan="2">Withdrawal document received by Standards staff on</td><td style="background:#f8cdf0">GO TO "Final" subsection → (A)</td></tr>
</table>

Related	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**		**GO TO "Persuasive" subsection**

<table>
<tr><td rowspan="6">Persuasive</td><td rowspan="4">Motion and Reason (check one)</td><td></td><td colspan="3">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td></tr>
<tr><td>X</td><td colspan="3">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td></tr>
<tr><td style="background:black"></td><td>Reason</td><td colspan="2">

• It can be fully understood by the contents of "10.3.5 Rules for Carrier Attributes" and the revised contents as shown below. Therefore, without adding a second rule, the E87 users will understand which service messages can be used to set the attributes of Carrier objects.

10.3.5 *Rules for Carrier Attributes*
  ● → The equipment shall change object attributes, Capacity, ContentMap, SlotMap, Substrate count ~~and Usage,~~ <u>Usage, CaRTUPSettingTime and CaRTUPTimeOut</u> provided by the host. All other attributes, such as LocationID, shall be set and maintained by the equipment.
</td></tr>
<tr><td colspan="3" style="background:black"></td></tr>
<tr><td>Motion by/ 2nd by</td><td colspan="4">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td></tr>
<tr><td>Discussion</td><td colspan="4">None</td></tr>
</table>

<table>
<tr><td rowspan="3">Result of Vote (check one)</td><td colspan="4">11 Y-0 N; Motion passed.</td></tr>
<tr><td>[Negative is related and persuasive.] > 1/3</td><td rowspan="2">Is a technical change recommended? (check one)</td><td>Y</td><td style="background:#f8cdf0">GO TO "Address by Technical Change Option" subsection</td></tr>
<tr><td>[Negative is related and not persuasive.] < 2/3</td><td>N</td><td style="background:#f8cdf0">GO TO "Final" subsection → (E)</td></tr>
</table>

			2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**	
		X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**	

Not Significant	*This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.6.4.4.2)*		
	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant". **GO TO "Final" subsection → (D)**

Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**
			(B)	Not related **(counted under i in disposition)**
			(C)	Related and not persuasive (significant)
		X	**(D)**	Not significant **(counted under j in disposition)**
			(E)	Related and persuasive and not addressed by technical change — **DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**	

Disposition of Voting Interest Reject 1
Check only when the Document has not been failed.

4	Original number (#) of Negatives		**(g)**
0	Number of Negatives withdrawn		**(h)**
0	Number of Negatives found not related		**(i)**
4	Number of Negatives found not significant		**(j)**
0	Number of Negatives addressed by technical change **(Negative becomes not significant)**		**(k)**
Final	x	**g** - (**h** + **i** +**j** + **k**) = 0	**Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check***
		g - (**h** + **i** +**j** + **k**) >0	**Reject is included in the denominator of § VI. *Approval Conditions Check***
		Reject without a Negative	**Not Valid**

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 2 (Voting Interest Name: SCREEN)
Voter Reject 1 (Voter: Takayuki Nishimura)
Negative 1

<table>
<tr>
<td rowspan="5">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="3">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="3">1.2.2</td>
</tr>
<tr>
<td rowspan="3">Negative Text</td>
<td colspan="3">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
</tr>
<tr>
<td colspan="3">Addition of this proposal is optional. However, 1.2.2 Revise section "10.3.5 Rules for Carrier Attributes" shows mandatory requirement. It is inconsistency. It is difficult for user to understand which part is optional.</td>
</tr>
<tr>
<td colspan="3">I strongly recommend all of this proposal should combine one additional section or, create new standard and reference that.</td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="3">It is same as for
• Reject 1 voter 1, Negative 1 submitted by Naoko Murata (TEL)
• Reject 1 voter 2, Negative 2 submitted by Mochizuki Tadashi (TEL)</td>
</tr>
<tr>
<td colspan="2" rowspan="2">Withdrawal (check one)</td>
<td>X</td>
<td>No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td></td>
<td>Withdrawal document received by Standards staff on</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="1">Related</td>
<td>Motion and Reason (check one)</td>
<td>X</td>
<td>'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td rowspan="2">Persuasive</td>
<td rowspan="2">Motion and Reason (check one)</td>
<td></td>
<td>Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
<td></td>
</tr>
</table>

		Reason	• 4946D is a logic-based implementation on Carrier Object. So, it is much easier for reader and user to understand when it is with existing CARREIR State Model Diagram rather than standing alone itself. It also gives uniformity to overall E87. • As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30

5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings:

Attribute Name	Definition	Access	Rqmt	Form
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.)

5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute.

5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)					
Discussion	None					
Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.					
		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)		Y	**GO TO "Address by Technical Change Option" subsection**
		[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
		2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
	X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final

(check if applicable)		(A)	Withdrawn **(counted under h in disposition)**
		(B)	Not related **(counted under i in disposition)**
		(C)	Related and not persuasive (significant)

	X	**(D)**	Not significant **(counted under j in disposition)**	
		(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
		(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**	

Disposition of Voting Interest Reject 2
Check only when the Document has not been failed.

1	Original number (#) of Negatives		**(g)**
0	Number of Negatives withdrawn		**(h)**
0	Number of Negatives found not related		**(i)**
1	Number of Negatives found not significant		**(j)**
0	Number of Negatives addressed by technical change **(Negative becomes not significant)**		**(k)**
Final	x	**g - (h + i +j + k) = 0**	**Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check***
		g - (h + i +j + k) >0	**Reject is included in the denominator of § VI. *Approval Conditions Check***
		Reject without a Negative	**Not Valid**

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 3 (Voting Interest Name: MURATA)
Voter Reject 1 (Voter: Shinichiro Imoto)
Negative 1

<table>
<tr><td rowspan="4">Negative</td><td>Referenced Section/ Paragraph</td><td colspan="4">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td></tr>
<tr><td></td><td colspan="4">1.2.7</td></tr>
<tr><td rowspan="2">Negative Text</td><td colspan="4">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td></tr>
<tr><td colspan="4">In 10.7.8.1,
• Additional "Carrier Ready To Unload" spec does not mention loading next carrier, therefore nobody knows that this will be able to help reduce carrier exchange time.
• On top of that, "potentially improve equipment productivity"; is your optimistic opinion. This kind of expression is inappropriate for any standard.</td></tr>
<tr><td colspan="2">TF input (optional)</td><td colspan="4"></td></tr>
<tr><td rowspan="2"></td><td rowspan="2">Withdrawal (check one)</td><td>X</td><td colspan="2">No Negative withdrawal made by Voter.</td><td>GO TO "Related" subsection</td></tr>
<tr><td></td><td colspan="2">Withdrawal document received by Standards staff on</td><td>GO TO "Final" subsection → (A)</td></tr>
<tr><td rowspan="1">Related</td><td>Motion and Reason (check one)</td><td>X</td><td colspan="2">'Related' is mutually agreed upon. (Needs no motion.)</td><td>GO TO "Persuasive" subsection</td></tr>
<tr><td rowspan="11">Persuasive</td><td rowspan="3">Motion and Reason (check one)</td><td></td><td colspan="2">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td><td></td></tr>
<tr><td>X</td><td colspan="2">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td><td></td></tr>
<tr><td>█</td><td>Reason</td><td>Carrier Loading is the role of HOST, not included in Scope of 4946.</td><td></td></tr>
<tr><td>Motion by/ 2nd by</td><td colspan="4">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td></tr>
<tr><td>Discussion</td><td colspan="4">None</td></tr>
<tr><td rowspan="6">Result of Vote (check one)</td><td colspan="4">11 Y-0 N; Motion passed.</td></tr>
</table>

	[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)	Y	**GO TO "Address by Technical Change Option" subsection**
	[Negative is related and not persuasive.] < 2/3		N	**GO TO "Final" subsection → (E)**
	2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**		
X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**		

<table>
<tr><td rowspan="2">Not Significant</td><td colspan="5">This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (<i>Regulations</i> ¶ 9.6.4.4.2)</td></tr>
<tr><td>Use of "Not significant finding option" (check one)</td><td>X</td><td colspan="2">It is mutually agreed upon to term the Negative "not significant".</td><td>GO TO "Final" subsection → (D)</td></tr>
<tr><td>Final</td><td></td><td>(A)</td><td colspan="2">Withdrawn (counted under h in disposition)</td></tr>
</table>

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(check if applicable)			**(B)**	Not related **(counted under i in disposition)**	
			(C)	Related and not persuasive (significant)	
	X		**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
(check if applicable)			Comment generated. **See Section V-(ii) Comment #**		

Disposition of Voting Interest Reject 3
Check only when the Document has not been failed.

1	Original number (#) of Negatives		**(g)**	
0	Number of Negatives withdrawn		**(h)**	
0	Number of Negatives found not related		**(i)**	
1	Number of Negatives found not significant		**(j)**	
0	Number of Negatives addressed by technical change **(Negative becomes not significant)**		**(k)**	
Final	x	$g - (h + i + j + k) = 0$	**Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check***	
		$g - (h + i + j + k) > 0$	**Reject is included in the denominator of § VI. *Approval Conditions Check***	
		Reject without a Negative	**Not Valid**	

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 4 (Voting Interest Name: HITACHI)
Voter Reject 1 (Voter: Mitsuhiro Matsuda)
Negative 1

<table>
<tr>
<td rowspan="4">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="3">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="3">1.2.1</td>
</tr>
<tr>
<td rowspan="2">Negative Text</td>
<td colspan="3">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
</tr>
<tr>
<td colspan="3">Addition of "CaRTUPStatus", "CaRTUPSettingTime" and "CaRTUPTimeOut" to Table 6 is not proper because Table 6 is a part of Fundamental CMS Requirement defined Table 39. It shall be separated from Table 6 because it is optional capability of E87.</td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="3">This reject is same as for Reject 2 Voter 1 Negative 1 submitted by Takayuki Nishimura (SCREEN)</td>
</tr>
<tr>
<td colspan="2" rowspan="2">Withdrawal (check one)</td>
<td>X</td>
<td>No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td></td>
<td>Withdrawal document received by Standards staff on</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="1">Rela ted</td>
<td>Motion and Reason (check one)</td>
<td>X</td>
<td>'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td rowspan="2">Persuasi ve</td>
<td rowspan="2">Motion and Reason (check one)</td>
<td></td>
<td>Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
<td></td>
</tr>
</table>

	Reason	• 4946D is a logic-based implementation on Carrier Object. So, it is much easier for reader/user to understand when it is with existing CARREIR State Model Diagram rather than standing alone. It also gives uniformity to overall E87. • As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30 5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings: | Attribute Name	Definition	Access	Rqmt	Form
---	---	---	---	---
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.)	 5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute. 5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.	

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion	None

Result of Vote (check one)

11 **Y**-0 **N**; Motion passed.

	[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)		Y	**GO TO "Address by Technical Change Option" subsection**
	[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
	2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final

(check if applicable)			
		(A)	Withdrawn (counted under h in disposition)
		(B)	Not related (counted under i in disposition)
		(C)	Related and not persuasive (significant)

		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			Comment generated. **See Section V-(ii) Comment #**	

Negative 2

Negative	**Referenced Section/ Paragraph**	***TF/TC Chapter to fill in, including text in the ballot if necessary.***		
		1.2.2		
	Negative Text	***Original complete Negative text (e.g., issue, justification, suggestion) should be copied.*** §10.3.5 is a part of Fundamental CMS Requirement defined Table 39. It shall be separated from §10.		
	TF input (optional)	This reject is same as for Reject 2 Voter 1 Negative 1 submitted by Takayuki Nishimura (SCREEN)		
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
			Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Related	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**
Persuasive	**Motion and Reason (check one)**		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**	
		X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**	

	Reason	• 4946D is a logic-based implementation on Carrier Object. So, it is much easier for reader/user to understand when it is with existing CARREIR State Model Diagram rather than standing alone. It also gives uniformity to overall E87. • As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30

5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings:

Attribute Name	Definition	Access	Rqmt	Form
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.)

5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute.

5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)				
Discussion	None				
Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.				
		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)	Y	GO TO "Address by Technical Change Option" subsection
		[Negative is related and not persuasive.] < 2/3		N	GO TO "Final" subsection → (E)
		2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)		
	X	90% ≤ [Negative is related and not persuasive.]	GO TO "Not Significant Finding Option" subsection		

Not Significant	This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)		
	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	GO TO "Final" subsection → (D)

Final	**(check if applicable)**		(A)	Withdrawn (counted under h in disposition)
			(B)	Not related (counted under i in disposition)
			(C)	Related and not persuasive (significant)

		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			Comment generated. **See Section V-(ii) Comment #**	

Negative 3

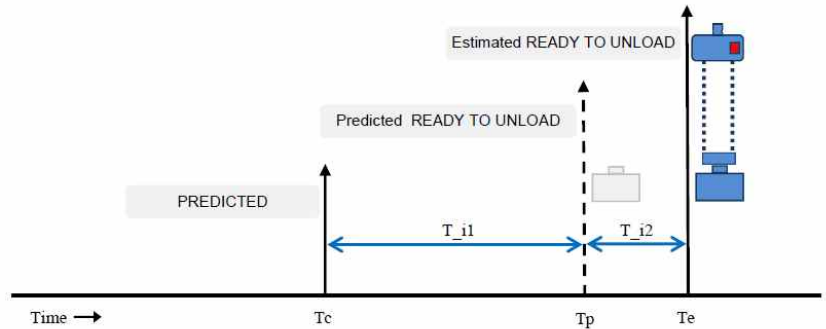|					
Negative	**Referenced Section/ Paragraph**	***TF/TC Chapter to fill in, including text in the ballot if necessary.**			
		1.2.2			
	Negative Text	***Original complete Negative text (e.g., issue, justification, suggestion) should be copied.**			
		No default value does exist for "CaRTUPSettingTime" and "CaRTUPTimeOut". Only way to provide from host to equipment are "CarrierNotification", "CarrierReCreate" and/or "ProceedWithCarrier". But these three Services may not be used under some operation case. I believe it needs default values for these two attributes.			
TF input (optional)					
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.		**GO TO "Related" subsection**
			Withdrawal document received by Standards staff on		**GO TO "Final" subsection → (A)**
Rela ted	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**		**GO TO "Persuasive" subsection**
Persuasive	**Motion and Reason (check one)**		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**		
		X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**		
			Reason	CaRTUPSettingTime "and" CaRTUPTimeOut "are set by Host, and initial value also will be set by Host.	
	Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)			
	Discussion	None			
	Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.			
			[Negative is related and persuasive.] > 1/3	**Is a technical change recommended? (check one)**	**Y**	**GO TO "Address by Technical Change Option" subsection**
			[Negative is related and not persuasive.] < 2/3		**N**	**GO TO "Final" subsection → (E)**
			2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**		
		X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**		
Not Sign	**This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.6.4.4.2)**				

	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	GO TO "Final" subsection → (D)
Final	(check if applicable)		(A)	Withdrawn (counted under h in disposition)	
			(B)	Not related (counted under i in disposition)	
			(C)	Related and not persuasive (significant)	
		X	(D)	Not significant (counted under j in disposition)	
			(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
			(F)	Addressed by technical change (counted under k disposition)	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**	

Negative 4

	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary.
Negative		1.2.4
	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.
		Addition of "CARRIER READY TO UNLOAD PREDICTION STATUS" to Figure 2 is not proper because Figure 2 is a part of Fundamental CMS Requirement defined Table 39. It shall be separated from Figure 2 because it is optional capability of E87.
	TF input (optional)	It is similar to negative 1 and 2 in above which are submitted by same voter, Mitsuhiro Matsuda (HITACHI)

	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection
			Withdrawal document received by Standards staff on	GO TO "Final" subsection → (A)
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection
Persuasive	Motion and Reason (check one)		Negative is related and persuasive. (Needs >1/3 votes to pass.)	
		X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	

	Reason	• 4946D is a logic-based implementation on Carrier Object. So, it is much easier for reader/user to understand when it is with existing CARREIR State Model Diagram rather than standing alone. It also gives uniformity to overall E87. • As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30

5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings:

Attribute Name	Definition	Access	Rqmt	Form
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.)

5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute.

5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)				
Discussion	None				
Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.				
		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)	Y	GO TO "Address by Technical Change Option" subsection
		[Negative is related and not persuasive.] < 2/3		N	GO TO "Final" subsection → (E)
		2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)		
	X	90% ≤ [Negative is related and not persuasive.]	GO TO "Not Significant Finding Option" subsection		

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	GO TO "Final" subsection → (D)

Final

(check if applicable)		(A)	Withdrawn (counted under h in disposition)
		(B)	Not related (counted under i in disposition)
		(C)	Related and not persuasive (significant)

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		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			Comment generated. **See Section V-(ii) Comment #** X.	

Negative 5

Negative	**Referenced Section/ Paragraph**	*TF/TC Chapter to fill in, including text in the ballot if necessary.*		
		1.2.7		
	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.*		
		In Figure 3 and 10.7.8.2, It is difficult to understand the difference "predicted time" and "estimated time". My understanding is that "predicted time" is calculated only once for each Carrier at Tc0. And "estimated time" is calculated many times at Tc1, Tc2 and Tcn, and compared with "predicted time". It needs to improve Figure 3 and ¶10.7.8.2. I propose change from "estimated time" to "periodical calculated predicted time".		
TF input (optional)				
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
			Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Related	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**
Persuasive	**Motion and Reason (check one)**		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**	
		X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**	

	Reason	The interpretation of "predicted time" and "estimated time" is based on feedback from many standard members, and I think it is not difficult to understand. And, Figure 3 Carrier Ready To Unload Prediction Behavior and Tp and Te definition below clearly illustrates the difference between the two expressions. **Figure 3** **Carrier Ready To Unload Prediction Behavior** 10.7.8.2 Figure 3 shows the time Tc at which the equipment predicts the time for READY TO UNLOAD. At this time Tc the equipment calculates that the carrier will be ready for pick-up at the predicted time Tp. After this time Tc the equipment calculates continually the actual time Te at which the carrier can actually be picked up. The two interval times T_i1 and T_i2 represent the time between the current time and the predicted time as well as between predicted time and actual time of readiness for unload, respectively. • Tc: The time of the condition calculation. • Tp: The predicted time when the carrier's load port will be READY TO UNLOAD at Tc. • Te: The estimated time when the carrier's load port will be READY TO UNLOAD after Tc. • T_i1: The time interval in seconds between Tc and Tp(T_i1 = Tp – Tc) • T_i2: The time interval in seconds between Tp and Te(T_i2 = Te – Tp).	

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion	None

Result of Vote (check one)	11 Y-0 N; Motion passed.					
		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)		Y	**GO TO "Address by Technical Change Option" subsection**
		[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
		2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
	X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Significant	**This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)**			
	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**
Fi			(A)	Withdrawn (counted under h in disposition)

			(B)	Not related **(counted under i in disposition)**	
	(check if applicable)		(C)	Related and not persuasive (significant)	
		X	(D)	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			Comment generated. **See Section V-(ii) Comment #**	

Voting Interest Reject 4 (Voting Interest Name: HITACHI)
Voter Reject 2 (Voter: Toyoshima Yuko)
Negative 1

<table>
<tr>
<td rowspan="4">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="3">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="3">1.2.4</td>
</tr>
<tr>
<td rowspan="2">Negative Text</td>
<td colspan="3">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
</tr>
<tr>
<td colspan="3">It is not specified in State model of added 'CARRIER READY TO UNLOAD PREDICTION STATUS' that it is additional CMS Capabilities.</td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="3"></td>
</tr>
<tr>
<td colspan="2" rowspan="2">Withdrawal (check one)</td>
<td>X</td>
<td>No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td></td>
<td>Withdrawal document received by Standards staff on</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="1">Related</td>
<td>Motion and Reason (check one)</td>
<td>X</td>
<td>'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td rowspan="5">Persuasive</td>
<td rowspan="3">Motion and Reason (check one)</td>
<td></td>
<td colspan="2">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
</tr>
<tr>
<td>X</td>
<td colspan="2">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
</tr>
<tr>
<td></td>
<td>Reason</td>
<td>As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. .Therefore, it is obvious that added item in Figure 2 is additional. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case.

E30

5.2 Object Attribute Representation — The object information models for standardized objects will be supported by an attribute definition table with the following column headings:

Attribute Name	Definition	Access	Rqmt	Form
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.)

5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute.

5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.</td>
</tr>
<tr>
<td colspan="2">Motion by/ 2nd by</td>
<td colspan="3">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td>
</tr>
<tr>
<td colspan="2">Discussion</td>
<td colspan="3">None</td>
</tr>
<tr>
<td colspan="2"></td>
<td colspan="3">11 Y-0 N; Motion passed.</td>
</tr>
</table>

Result of Vote **(check one)**			[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** **(check one)**		Y	**GO TO "Address by Technical Change Option" subsection**
			[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
			2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
		X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			
Not Significant	**This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)**						
	Use of "Not significant finding option" **(check one)**	X	It is mutually agreed upon to term the Negative "not significant".				**GO TO "Final" subsection → (D)**
Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**			
			(B)	Not related **(counted under i in disposition)**			
			(C)	Related and not persuasive (significant)			
		X	**(D)**	Not significant **(counted under j in disposition)**			
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**		
			(F)	Addressed by technical change **(counted under k disposition)**			
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #** X.				

Negative 2

Negative	**Referenced Section/ Paragraph**		***TF/TC Chapter to fill in, including text in the ballot if necessary.**
			1.2.3
	Negative Text		***Original complete Negative text (e.g., issue, justification, suggestion) should be copied.**
			Because only 10.7.8 is listed in 'CMS Section' of table 39, it is understood that the contents of this パロット listed other than 10.7.8 are also required to compliant to E87. Therefore, this description method is not accepted. To avoid user's confusion, it is recommended that the contents of this ballot list it in one place in a new section in a mass.
	TF input (optional)		This reject is same as for Reject 1 Voter 2 Negative 2 submitted by Mochizuki Tadashi (TEL)
	Withdrawal **(check one)**	X	No Negative withdrawal made by Voter.
			Withdrawal document received by Standards staff on
Related	**Motion and Reason** **(check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**
	Motion and Reason		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**

The Withdrawal and Related rows also have pink action cells:

No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**

Persuasive	**(check one)**	X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**				
			Reason	• As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30 			
	Motion by/ 2ⁿᵈ by		Byeongmin Im (TEL)/ Hyungsu Kim (Doople)				
	Discussion		None				
	Result of Vote (check one)		11 **Y**-0 **N**; Motion passed.				
			[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)		Y	**GO TO "Address by Technical Change Option" subsection**
			[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
			2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
		X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			
Not Significant	This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)						
	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".				**GO TO "Final" subsection → (D)**
Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**			
			(B)	Not related **(counted under i in disposition)**			
			(C)	Related and not persuasive (significant)			
		X	**(D)**	Not significant **(counted under j in disposition)**			
			(E)	Related and persuasive and not addressed by technical change		**DOCUMENT FAILS**	

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		(F)	Addressed by technical change (counted under k disposition)
(check if applicable)		Comment generated. See Section V-(ii) Comment #	

Disposition of Voting Interest Reject 4
Check only when the Document has not been failed.

7	Original number (#) of Negatives	(g)
0	Number of Negatives withdrawn	(h)
0	Number of Negatives found not related	(i)
7	Number of Negatives found not significant	(j)
0	Number of Negatives addressed by technical change (Negative becomes not significant)	(k)

Final	x	g - (h + i +j + k) = 0	Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check*
		g - (h + i +j + k) >0	Reject is included in the denominator of § VI. *Approval Conditions Check*
		Reject without a Negative	Not Valid

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 5 (Voting Interest Name: Yokogawa)
Voter Reject 1 (Voter: Takashi Nakagawa)
Negative 1

<table>
<tr>
<td rowspan="4">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="4">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="4">1.2.7</td>
</tr>
<tr>
<td rowspan="2">Negative Text</td>
<td colspan="4">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
</tr>
<tr>
<td colspan="4">In Figure 3 and 10.7.8.2,
The difference of predicted and estimated is unclear and hard to understand. The definition of them should be added into section 5.2 and explained in detail before figure 3.</td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="4"></td>
</tr>
<tr>
<td rowspan="2" colspan="2">Withdrawal (check one)</td>
<td>X</td>
<td colspan="2">No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td></td>
<td colspan="2">Withdrawal document received by Standards staff on</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="1">Rela ted</td>
<td>Motion and Reason (check one)</td>
<td>X</td>
<td colspan="2">'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td rowspan="14">Persuasive</td>
<td rowspan="4">Motion and Reason (check one)</td>
<td></td>
<td colspan="4">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
</tr>
<tr>
<td>X</td>
<td colspan="4">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
</tr>
<tr>
<td></td>
<td>Reason</td>
<td colspan="3">The interpretation of "predicted time" and "estimated time" is based on feedback from previous ballots. It is general term of the industry so it wouldn't be necessary.</td>
</tr>
<tr>
<td colspan="5"></td>
</tr>
<tr>
<td>Motion by/ 2nd by</td>
<td colspan="5">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td>
</tr>
<tr>
<td>Discussion</td>
<td colspan="5">None</td>
</tr>
<tr>
<td rowspan="6">Result of Vote (check one)</td>
<td colspan="5">11 Y-0 N; Motion passed.</td>
</tr>
<tr>
<td></td>
<td>[Negative is related and persuasive.] > 1/3</td>
<td rowspan="2">Is a technical change recommended? (check one)</td>
<td>Y</td>
<td>GO TO "Address by Technical Change Option" subsection</td>
</tr>
<tr>
<td></td>
<td>[Negative is related and not persuasive.] < 2/3</td>
<td>N</td>
<td>GO TO "Final" subsection → (E)</td>
</tr>
<tr>
<td></td>
<td>2/3 ≤ [Negative is related and not persuasive.] < 90%</td>
<td colspan="3">GO TO "Final" subsection → (C)</td>
</tr>
<tr>
<td>X</td>
<td>90% ≤ [Negative is related and not persuasive.]</td>
<td colspan="3">GO TO "Not Significant Finding Option" subsection</td>
</tr>
<tr>
<td rowspan="2">Not Significant</td>
<td colspan="5">This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (<i>Regulations</i> ¶ 9.6.4.4.2)</td>
</tr>
<tr>
<td>Use of "Not significant finding option" (check one)</td>
<td>X</td>
<td colspan="2">It is mutually agreed upon to term the Negative "not significant".</td>
<td>GO TO "Final" subsection → (D)</td>
</tr>
<tr>
<td rowspan="2">Fin al</td>
<td rowspan="2">(check if applicable)</td>
<td></td>
<td>(A)</td>
<td colspan="2">Withdrawn (counted under h in disposition)</td>
</tr>
<tr>
<td></td>
<td>(B)</td>
<td colspan="2">Not related (counted under i in disposition)</td>
</tr>
</table>

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		(C)	Related and not persuasive (significant)	
	X	**(D)**	Not significant **(counted under j in disposition)**	
		(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
		(F)	Addressed by technical change **(counted under k disposition)**	
(check if applicable)			Comment generated. **See Section V-(ii) Comment #**	

Disposition of Voting Interest Reject 5
Check only when the Document has not been failed.

1	Original number (#) of Negatives		**(g)**	
0	Number of Negatives withdrawn		**(h)**	
0	Number of Negatives found not related		**(i)**	
1	Number of Negatives found not significant		**(j)**	
0	Number of Negatives addressed by technical change **(Negative becomes not significant)**		**(k)**	
Final	x	**g - (h + i +j + k) = 0**	**Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check***
		g - (h + i +j + k) >0	**Reject is included in the denominator of § VI. *Approval Conditions Check***
		Reject without a Negative	**Not Valid**

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 6 (Voting Interest Name: TokyoSeimitsy)
Voter Reject 1 (Voter: Mie Sasaki)
Negative 1

<table>
<tr>
<td rowspan="3">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="3">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="3">1.2.2, 1.2.3 and 1.2.4</td>
</tr>
<tr>
<td>Negative Text</td>
<td colspan="3">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.

• In Table 39 of E87-1017, 'Carrier Object Implementation (section 10)' is 'Fundamental CMS Requirements'. Although section 10.7.8 is proposed to be added as 'Additional CMS Capabilities' in this proposal, the section 10 remain ' Fundamental CMS Requirements' as described above. So this proposal is inconsistent with E87-1017.
• Also, in this proposal, changes are also included in parts other than section 10.7.8, such as section 10.3 and 10.7.2. We believe these changes will be treated as 'Fundamental CMS Requirements'. This change affects great amount of CMS-compliant equipment because this proposal is not optional.</td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="3">This reject is same as for
• Reject 1 Voter 2 Negative 2 submitted by Mochizuki Tadashi (TEL)
• Reject 2 Voter 1 Negative 1 submitted by Takayuki Nishimura (SCREEN)</td>
</tr>
<tr>
<td colspan="2" rowspan="2">Withdrawal (check one)</td>
<td>X</td>
<td>No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td></td>
<td>Withdrawal document received by Standards staff on</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="1">Related</td>
<td>Motion and Reason (check one)</td>
<td>X</td>
<td>'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td rowspan="2">Persuasive</td>
<td rowspan="2">Motion and Reason (check one)</td>
<td></td>
<td colspan="2">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
</tr>
<tr>
<td>X</td>
<td colspan="2">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
</tr>
</table>

	Reason	• 4946D is a logic-based implementation on Carrier Object. So, it is much easier for reader/user to understand when it is with existing CARREIR State Model Diagram rather than standing alone. It also gives uniformity to overall E87. • As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30	

5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings:

Attribute Name	Definition	Access	Rqmt	Form
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.)

5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute.

5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)				
Discussion	None				
Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.				
		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)	Y	**GO TO "Address by Technical Change Option" subsection**
		[Negative is related and not persuasive.] < 2/3		N	**GO TO "Final" subsection → (E)**
		2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**		
	X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**		

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final

(check if applicable)		(A)	Withdrawn **(counted under h in disposition)**
		(B)	Not related **(counted under i in disposition)**
		(C)	Related and not persuasive (significant)

		X	(D)	Not significant (counted under j in disposition)	
			(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
			(F)	Addressed by technical change (counted under k disposition)	
	(check if applicable)		Comment generated. See Section V-(ii) Comment #		

Disposition of Voting Interest Reject 6
Check only when the Document has not been failed.

1	Original number (#) of Negatives			(g)
0	Number of Negatives withdrawn			(h)
0	Number of Negatives found not related			(i)
1	Number of Negatives found not significant			(j)
0	Number of Negatives addressed by technical change (Negative becomes not significant)			(k)
Final	x	g - (h + i +j + k) = 0	Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check*	
		g - (h + i +j + k) >0	Reject is included in the denominator of § VI. *Approval Conditions Check*	
		Reject without a Negative	Not Valid	

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 7 (Voting Interest Name: Peer Group)
Voter Reject 1 (Voter: Albert Fuchigami)
Negative 1

<table>
<tr><td rowspan="4">Negative</td><td rowspan="2">Referenced Section/ Paragraph</td><td>*TF/TC Chapter to fill in, including text in the ballot if necessary.</td><td colspan="2"></td></tr>
<tr><td>1.2.9</td><td colspan="2"></td></tr>
<tr><td rowspan="2">Negative Text</td><td>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td><td colspan="2"></td></tr>
<tr><td colspan="3">Comment for CaRTUPTimeOut is incorrect in Table 37 Variable Data Definitions

• The comment includes the text 'A value of 0 (zero) disables the PREDICTED to PREDICTION ABORTED transition"

• A value of 0 (zero) should disable the $T\_i2 \geq$ CaRTUPTimeOut calculation (i.e. the estimated time of the carrier getting ready for unloading exceeded the time specified in CaRTUTPTimeOut past the predicted time.)

• However, if the other conditions are fulfilled, the PREDICTED to PREDICTION ABORTED transition should occur (for example, the Equipment has changed the loadport will be ready for unload)</td></tr>
<tr><td colspan="2">TF input (optional)</td><td colspan="3"></td></tr>
<tr><td colspan="2" rowspan="2">Withdrawal (check one)</td><td>X</td><td>No Negative withdrawal made by Voter.</td><td>GO TO "Related" subsection</td></tr>
<tr><td></td><td>Withdrawal document received by Standards staff on</td><td>GO TO "Final" subsection → (A)</td></tr>
<tr><td>Related</td><td>Motion and Reason (check one)</td><td>X</td><td>'Related' is mutually agreed upon. (Needs no motion.)</td><td>GO TO "Persuasive" subsection</td></tr>
<tr><td rowspan="2">Persuasive</td><td rowspan="2">Motion and Reason (check one)</td><td></td><td>Negative is related and persuasive. (Needs >1/3 votes to pass.)</td><td></td></tr>
<tr><td>X</td><td>Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td><td></td></tr>
</table>

	Reason	This attribute specifies the maximum time difference between originally anticipated time for the carrier's ready to unload and the current time. • If this time elapses and the carrier is still not ready for unloading, the carrier object shall transition from the PREDICTED to the PREDICTION ABORTED state. If this time is set to 0 (zero), the equipment does not check the condition of the PREDICTION ABORTED state. • If CaRTUPTimeOut is zero(0) and the load port will be ready for unload the CARRIE READY TO UNLOAD PREDICTION state will be PREDICTION COMPLETED not PREDICTION ABORTED. Please refer to the "10.7.8.5 Condition for the PREDICTION ABORTED" in below. 10.7.8.5 *Condition for the PREDICTION ABORTED* — this state shall be assumed, when at least one of the following conditions is fulfilled: • If the CARRIER READY TO UNLOAD PREDICTION status is WAITING FOR PREDICTION and the equipment can't estimate the time for READY TO UNLOAD caused by a problem on the equipment. • T_i2 ≥ CaRTUPTimeOut, i.e. In the PREDICTED state, the estimated time of the carrier getting ready for unloading exceeded the time specified in CaRTUTPTimeOut past the predicted time. • The equipment has changed the load port at which the carrier will be ready for unload.	

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion	None

11 Y-0 N; Motion passed.

Result of Vote (check one)		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended? (check one)**		Y	**GO TO "Address by Technical Change Option" subsection**
		[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
		2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
	X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

		(A)	Withdrawn **(counted under h in disposition)**	
(check if applicable)		**(B)**	Not related **(counted under i in disposition)**	
		(C)	Related and not persuasive (significant)	
	X	**(D)**	Not significant **(counted under j in disposition)**	
		(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
		(F)	Addressed by technical change **(counted under k disposition)**	
(check if applicable)		Comment generated. **See Section V-(ii) Comment #**		

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Negative 2

<table>
<tr><td rowspan="2">Negative</td><td rowspan="2">Referenced Section/ Paragraph</td><td colspan="4">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td></tr>
<tr><td colspan="4">N/A</td></tr>
<tr><td rowspan="2">Negative Text</td><td colspan="4">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td></tr>
<tr><td colspan="4">There should be a way to notify the Host when the Prediction is updated.

• Consider the scenario where at 12:00 (Tc), the Equipment predicts LP1 will be ready to unload in 3 minutes (at 12:03 (Tp)). At 12:01, the Host queues up a new Job using material in that carrier that will take 20min to run. The previous prediction is no longer valid. However, the Host has been notified of the 12:03 prediction, and there is no way to update them.   When T_i2 exceeds CaRTUPTimeout, the carrier goes into PREDICTIONABORTED state. When the new job is nearly done, there's no way to notify the Host so they can schedule the AMHS.

• I think this could be addressed by adding a new transition: either PREDICTED -> WAITINGFORPREDICTION or maybe PREDICTED -> PREDICTED.</td></tr>
</table>

<table>
<tr><td colspan="2">TF input (optional)</td><td colspan="4"></td></tr>
<tr><td colspan="2">Withdrawal
(check one)</td><td>X</td><td>No Negative withdrawal made by Voter.</td><td colspan="2" style="background:#ff9cf0">GO TO "Related" subsection</td></tr>
<tr><td colspan="2"></td><td></td><td>Withdrawal document received by Standards staff on</td><td colspan="2" style="background:#ff9cf0">GO TO "Final" subsection → (A)</td></tr>
<tr><td rowspan="1">Rela ted</td><td>Motion and Reason
(check one)</td><td>X</td><td>'Related' is mutually agreed upon. (Needs no motion.)</td><td colspan="2" style="background:#ff9cf0">GO TO "Persuasive" subsection</td></tr>
</table>

<table>
<tr><td rowspan="9">Persuasive</td><td rowspan="3">Motion and Reason
(check one)</td><td colspan="2"></td><td colspan="2">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td></tr>
<tr><td colspan="2">X</td><td colspan="2">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td></tr>
<tr><td style="background:black"></td><td>Reason</td><td colspan="2">By using CMS Service Message "CarrierReCreate" in table 15 of E87, Prediction can be done on newly created Carrier Object.

service can be queued by the production equipment.
CarrierReCreate   R   This service shall cause the carrier object (and consequently, associated state models of the object) specified by the service to be recreated. This service shall be accepted only if the load port is in the 'Ready to Unload' state.
CarrierRelease   R   Release the carrier from Carrier Hold</td></tr>
<tr><td colspan="1">Motion by/ 2nd by</td><td colspan="4">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td></tr>
<tr><td colspan="1">Discussion</td><td colspan="4">None</td></tr>
<tr><td rowspan="4">Result of Vote
(check one)</td><td colspan="4">11 Y-0 N; Motion passed.</td></tr>
<tr><td>[Negative is related and persuasive.] > 1/3</td><td rowspan="2">Is a technical change recommended? (check one)</td><td>Y</td><td style="background:#ff9cf0">GO TO "Address by Technical Change Option" subsection</td></tr>
<tr><td>[Negative is related and not persuasive.] < 2/3</td><td>N</td><td style="background:#ff9cf0">GO TO "Final" subsection → (E)</td></tr>
<tr><td>2/3 ≤ [Negative is related and not persuasive.] < 90%</td><td colspan="3" style="background:#ff9cf0">GO TO "Final" subsection → (C)</td></tr>
</table>

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		X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**

Not Significant	**This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)**		
	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**	
			(B)	Not related **(counted under i in disposition)**	
			(C)	Related and not persuasive (significant)	
		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**		

Negative 3

Negative	**Referenced Section/ Paragraph**	***TF/TC Chapter to fill in, including text in the ballot if necessary.**
		1.2.5
	Negative Text	***Original complete Negative text (e.g., issue, justification, suggestion) should be copied.**
		• State Model transition should not reference State Model definition as the trigger. For example, Transition 23 Trigger - The condition for PREDICTED is satisfied. (10.7.8.4 Condition for the PREDICTED))
		• SEMI E87 refers to the Harel State Chart notation for state model methodology, and points to SEMI E30. In SEMI E30 A5.2 Transition Table section, it describes 'The trigger column describes the combination of events and conditions that initiates the transition (e.g., message Sx,Fy received). The trigger should be related to a single clearly defined event at the equipment'.
		• I think Transition 23 can be simplified to be 'The Equipment has calculated when the carrier will be unloaded and at which loadport'.
		– The current definition ($T\_i1 \le CaRTUPSettingTime$) will always be true, since once Tp has been reached, T_i1 will no longer increase.
		– Until $T\_i2 \> CaRTUPTimeOut$, it will remain in PREDICTED state, but 10.7.8.4 leads to you believe T_i1 is the determining factor
		• Other State Model transition triggers that reference the State should be updated.
		• If you make this change, I don't think the sections describing conditions for predicted and aborted (Section 10.7.8.4, 10.7.8.5) are required anymore.
TF input (optional)		
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**

			Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Rela ted	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**

Persuasive	**Motion and Reason (check one)**		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**	
		X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**	

Reason

It was physically difficult to put more details into the narrow Table Column, so I wanted to make it easier to understand the trigger through the reference.
Here is an example of same case.

- 4946D

Table 7 Carrier State Transition Table

#	Previous State	Trigger	New State	Actions	Comment
22	(No State)	Carrier object has been created. The Carrier object attribute CaRTUPSettingTime for the CARRIER READY TO UNLOAD PREDICTION behavior is not set to 0(zero).	WAITING FOR PREDICTION	None	Data required to be available for this event report: PortID (if valid), CarrierID
23	WAITING FOR PREDICTION	The condition for PREDICTED is satisfied. (10.7.8.4 *Condition for the PREDICTED*)	PREDICTED	None	Data required to be available for this event report: PortID, CarrierID,
24	PREDICTED		PREDICTION	None	

- E32 MATERIAL MOVEMENT MANAGEMENT(MMM)

Table 2 Atomic Transfer State Transition Table

#	Current State	Trigger	New State	Action(s
1	(Atomic Transfer Created)	The parent transfer job becomes active (see Table 3).	ATOMIC TRANSFER QUEUED	None.

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)	
Discussion	None	

Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.				
	[Negative is related and persuasive.] > 1/3	**Is a technical change recommended? (check one)**		Y	**GO TO "Address by Technical Change Option" subsection**
	[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
	2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Sign	This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	GO TO "Final" subsection → (D)
Final	(check if applicable)		**(A)** Withdrawn **(counted under h in disposition)**	
			(B) Not related **(counted under i in disposition)**	
			(C) Related and not persuasive (significant)	
		X	**(D)** Not significant **(counted under j in disposition)**	
			(E) Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F) Addressed by technical change **(counted under k disposition)**	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #** X.	

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Voting Interest Reject 7 (Voting Interest Name: Peer Group)
Voter Reject 2 (Voter: Christian Hoffman)
Negative 1

<table>
<tr>
<td rowspan="4">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="4">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="4">1.2.7</td>
</tr>
<tr>
<td rowspan="2">Negative Text</td>
<td colspan="4">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
</tr>
<tr>
<td colspan="4">In 10.7.8.4,

* $T\_i1 \le$ CaRTUPSettingTime, i.e. the CARRIER READY TO UNLOAD PREDICTION state model shall transition to the PREDICTED state whenever the equipment determines that the currently predicted time at which the carrier is ready to unload is less than the CaRTUPSettingTime later than the current time. It shows "smaller than or equal to" but only describes less than.</td>
</tr>
</table>

	TF input (optional)				

	Withdrawal (check one)	X	No Negative withdrawal made by Voter.		GO TO "Related" subsection
			Withdrawal document received by Standards staff on		GO TO "Final" subsection → (A)
Related	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. (Needs no motion.)		GO TO "Persuasive" subsection

<table>
<tr>
<td rowspan="14">Persuasive</td>
<td rowspan="3">Motion and Reason (check one)</td>
<td>X</td>
<td colspan="5">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
</tr>
<tr>
<td></td>
<td colspan="5">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
</tr>
<tr>
<td style="background:black"></td>
<td>Reason</td>
<td colspan="4"></td>
</tr>
<tr>
<td>Motion by/ 2nd by</td>
<td colspan="6">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td>
</tr>
<tr>
<td>Discussion</td>
<td colspan="6">None</td>
</tr>
<tr>
<td rowspan="9">Result of Vote (check one)</td>
<td colspan="6">11 Y-0 N; Motion passed.</td>
</tr>
<tr>
<td>X</td>
<td>[Negative is related and persuasive.] > 1/3</td>
<td rowspan="2">Is a technical change recommended? (check one)</td>
<td>X</td>
<td>Y</td>
<td>GO TO "Address by Technical Change Option" subsection</td>
</tr>
<tr>
<td></td>
<td>[Negative is related and not persuasive.] < 2/3</td>
<td></td>
<td>N</td>
<td>GO TO "Final" subsection → (E)</td>
</tr>
<tr>
<td></td>
<td>2/3 ≤ [Negative is related and not persuasive.] < 90%</td>
<td colspan="4">GO TO "Final" subsection → (C)</td>
</tr>
<tr>
<td></td>
<td>90% ≤ [Negative is related and not persuasive.]</td>
<td colspan="4">GO TO "Not Significant Finding Option" subsection</td>
</tr>
</table>

Address by	Technical Change Recommendations Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.

<table>
<tr><td rowspan="2">Technical Changes</td><td rowspan="2">1</td><td colspan="2">**FROM: Section/Paragraph 10.7.8.4**

* $T\_i1 \le$ CaRTUPSettingTime, i.e. the CARRIER READY TO UNLOAD PREDICTION state model shall transition to the PREDICTED state whenever the equipment determines that the currently predicted time at which the carrier is ready to unload is <u>less than</u> the CaRTUPSettingTime later than the current time.</td></tr>
</table>

Technical Changes	1	**FROM: Section/Paragraph 10.7.8.4** * $T\_i1 \le$ CaRTUPSettingTime, i.e. the CARRIER READY TO UNLOAD PREDICTION state model shall transition to the PREDICTED state whenever the equipment determines that the currently predicted time at which the carrier is ready to unload is <u>less than</u> the CaRTUPSettingTime later than the current time.
		TO: Section/Paragraph 10.7.8.4 * $T\_i1 \le$ CaRTUPSettingTime, i.e. the CARRIER READY TO UNLOAD PREDICTION state model shall transition to the PREDICTED state whenever the equipment determines that the currently predicted time at which the carrier is ready to unload is <u>smaller than or equal to</u> the CaRTUPSettingTime later than the current time.
		Justification (If necessary) The expression "less than" in the original contents is not right for "≤". So it has to be changed to "smaller than or equal to".

Motion	Negative is addressed by the technical change(s).	
Motion by/2ⁿᵈ by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)	
Discussion	None	

Result of Vote (check one)	11 Y-0 N; Motion passed.		
	X	2/3 ≤ [Negative is addressed by the technical change(s).]	**GO TO "Incorporation of the Technical Change" subsection**
		[Negative is not addressed by the technical change(s).] < 2/3	**GO TO "Final" subsection → (E)**

Incorporation of the Technical Change

Motion	To incorporate the technical change(s).		
Motion by/2ⁿᵈ by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)		
Discussion	None		
Result of Vote (check one)	11 Y-0 N; Motion passed		
	X	90% ≤ [Agree to incorporate.]	**GO TO "Final" subsection → (F)**
		[Disagree to incorporate.]>10%	**GO TO "Final" subsection → (E)**

Final

(check if applicable)			**(A)**	Withdrawn **(counted under h in disposition)**	
			(B)	Not related **(counted under i in disposition)**	
			(C)	Related and not persuasive (significant)	
			(D)	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
		X	**(F)**	Addressed by technical change **(counted under k disposition)**	
(check if applicable)			Comment generated. **See Section V-(ii) Comment #**		

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Negative 2

<table>
<tr><td rowspan="8">Negative</td><td rowspan="2">Referenced Section/ Paragraph</td><td colspan="4">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td></tr>
<tr><td colspan="4">1.2.7</td></tr>
<tr><td rowspan="2">Negative Text</td><td colspan="4">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td></tr>
<tr><td colspan="4">In 10.7.8.5,

*If the CARRIER READY TO UNLOAD PREDICTION status is WAITING FOR PREDICTION and the equipment can't estimate the time for READY TO UNLOAD caused by a problem on the equipment.

* $T\_i2 \geq$ CaRTUPTimeOut, i.e. In the PREDICTED state, the estimated time of the carrier getting ready for unloading exceeded the time specified in CaRTUTPTimeOut past the predicted time.

•   It shows "greater than or equal to" but only describes exceeding.</td></tr>
</table>

TF input (optional)			

Withdrawal (check one)	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
		Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**

Rela ted	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**

<table>
<tr><td rowspan="10">Persuasive</td><td rowspan="3">Motion and Reason (check one)</td><td>X</td><td colspan="4">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td></tr>
<tr><td></td><td colspan="4">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td></tr>
<tr><td style="background:black"></td><td>Reason</td><td colspan="3"></td></tr>
<tr><td>Motion by/ 2nd by</td><td colspan="5">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td></tr>
<tr><td>Discussion</td><td colspan="5">None</td></tr>
<tr><td rowspan="5">Result of Vote (check one)</td><td colspan="5">11 Y-0 N; Motion passed.</td></tr>
<tr><td>X</td><td>[Negative is related and persuasive.] > 1/3</td><td rowspan="2">Is a technical change recommended? (check one)</td><td>X</td><td>Y</td><td>GO TO "Address by Technical Change Option" subsection</td></tr>
<tr><td></td><td>[Negative is related and not persuasive.] < 2/3</td><td></td><td>N</td><td>GO TO "Final" subsection → (E)</td></tr>
<tr><td></td><td>2/3 ≤ [Negative is related and not persuasive.] < 90%</td><td colspan="3">GO TO "Final" subsection → (C)</td></tr>
<tr><td></td><td>90% ≤ [Negative is related and not persuasive.]</td><td colspan="3">GO TO "Not Significant Finding Option" subsection</td></tr>
</table>

Address by	**Technical Change Recommendations** **Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.**

			FROM: Section/Paragraph **10.7.8.5**
Technical Changes	**1**		* If the CARRIER READY TO UNLOAD PREDICTION status is WAITING FOR PREDICTION and the equipment can't estimate the time for READY TO UNLOAD caused by a problem on the equipment. * T_i2 ≥ CaRTUPTimeOut, i.e. In the PREDICTED state, the estimated time of the carrier getting ready for unloading <u>exceeded</u> the time specified in CaRTUTPTimeOut past the predicted time.
			TO: Section/Paragraph 10.7.8.5 * If the CARRIER READY TO UNLOAD PREDICTION status is WAITING FOR PREDICTION and the equipment can't estimate the time for READY TO UNLOAD caused by a problem on the equipment. * T_i2 ≥ CaRTUPTimeOut, i.e. In the PREDICTED state, the estimated time of the carrier getting ready for unloading <u>greater than or equal to</u> the time specified in CaRTUTPTimeOut past the predicted time.
			Justification (If necessary) The expression "exceeded" in the original contents is not right for "≥". So it has to be changed to "greater than or equal to".

Motion	Negative is addressed by the technical change(s).
Motion by/2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion	None

Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.		
	X	2/3 ≤ [Negative is addressed by the technical change(s).]	**GO TO "Incorporation of the Technical Change" subsection**
		[Negative is not addressed by the technical change(s).] < 2/3	**GO TO "Final" subsection → (E)**

Incorporation of the Technical Change	**Motion**	To incorporate the technical change(s).		
	Motion by/2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)		
	Discussion	None		
	Result of Vote (check one)	11 **Y**-0 **N**; Motion passed.		
		X	90% ≤ [Agree to incorporate.]	**GO TO "Final" subsection → (F)**
			[Disagree to incorporate.]>10%	**GO TO "Final" subsection → (E)**

Final	**(check if applicable)**			**(A)**	Withdrawn **(counted under h in disposition)**	
				(B)	Not related **(counted under i in disposition)**	
				(C)	Related and not persuasive (significant)	
				(D)	Not significant **(counted under j in disposition)**	
				(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			X	**(F)**	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			Comment generated. **See Section V-(ii) Comment #**		

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Disposition of Voting Interest Reject 7
Check only when the Document has not been failed.

5	Original number (#) of Negatives					**(g)**	
0	Number of Negatives withdrawn					**(h)**	
0	Number of Negatives found not related					**(i)**	
3	Number of Negatives found not significant					**(j)**	
2	Number of Negatives addressed by technical change **(Negative becomes not significant)**					**(k)**	
Final	X	g - (h + i +j + k) = 0		**Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check***			
		g - (h + i +j + k) >0		**Reject is included in the denominator of § VI. *Approval Conditions Check***			
		Reject without a Negative		**Not Valid**			

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 8 (Voting Interest Name: Self)
Voter Reject 1 (Voter: Mitch Sakamoto)

Negative 1

<table>
<tr>
<td rowspan="4">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="3">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="3">1.2.1</td>
</tr>
<tr>
<td rowspan="2">Negative Text</td>
<td colspan="3">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
</tr>
<tr>
<td colspan="3">Disagree to the proposal.
• The proposal is adding new attributes to Carrier object to support the prediction. The prediction is an Additional, (optional) capability.
• Adding new attributes to Carrier object requires every equipment to change its control program. Even in the case of the prediction is not required, equipment is required to implement it. That will get significant damage to Equipment Suppliers, in the cost of development and maintenance of the software. Those attributes shall be defined outside of the Carrier Object.</td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="3">This reject is same as for
• Reject 1 Voter 1 Negative 1 submitted by Naoko Murata (TEL)</td>
</tr>
<tr>
<td colspan="2" rowspan="2">Withdrawal (check one)</td>
<td>X</td>
<td>No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td></td>
<td>Withdrawal document received by Standards staff on</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="1">Related</td>
<td>Motion and Reason (check one)</td>
<td>X</td>
<td>'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td rowspan="2">Persuasive</td>
<td rowspan="2">Motion and Reason (check one)</td>
<td></td>
<td colspan="2">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
</tr>
<tr>
<td>X</td>
<td colspan="2">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
</tr>
</table>

	Reason		• 4946D is a logic-based implementation on Carrier Object. So it is much easier for reader/user to understand when it is with existing CARREIR State Model Diagram rather than standing alone. It also gives uniformity to overall E87. • As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30	

5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings:

Attribute Name	Definition	Access	Rqmt	Form
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.)

5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute.

5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)	
Discussion	None	

11 **Y**-0 **N**; Motion passed.

Result of Vote (check one)		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended? (check one)**		Y	**GO TO "Address by Technical Change Option" subsection**
		[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
		2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
	X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final

(check if applicable)		**(A)**	Withdrawn **(counted under h in disposition)**
		(B)	Not related **(counted under i in disposition)**
		(C)	Related and not persuasive (significant)

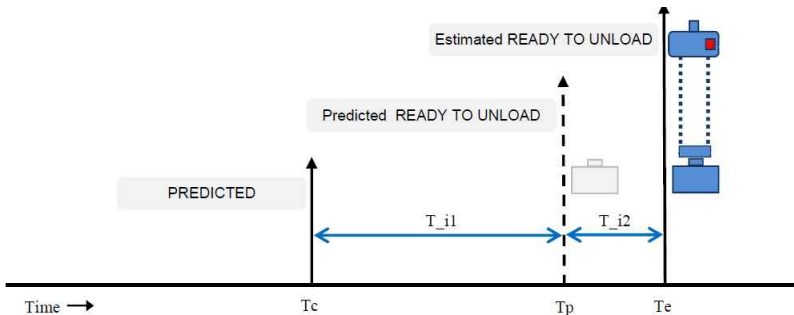|		X	(D)	Not significant (counted under j in disposition)	
			(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
			(F)	Addressed by technical change (counted under k disposition)	
	(check if applicable)			Comment generated. See Section V-(ii) Comment #	

Negative 2

Negative	**Referenced Section/ Paragraph**	*TF/TC Chapter to fill in, including text in the ballot if necessary.			
		1.2.7			
	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.			
		In 10.7.3.5.1, The description says; (1) equipment estimates the time (2) To check the abort condition We need to add "equipment checks the prediction condition" also.			

TF input (optional)					

Withdrawal (check one)		X	No Negative withdrawal made by Voter.		GO TO "Related" subsection
			Withdrawal document received by Standards staff on		GO TO "Final" subsection → (A)
Related	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. (Needs no motion.)		GO TO "Persuasive" subsection

Persuasive	**Motion and Reason (check one)**		Negative is related and persuasive. (Needs >1/3 votes to pass.)			
		X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)			
			Reason	The contents are already included in 10.7.3.5.1. 10.7.3.5.1 *WAITING FOR PREDICTION* — this is a sub-state of CARRIER READY TO UNLOAD PREDICTION STATUS and is active when the equipment is waiting for the condition (10.7.8.4 *Condition for the PREDICTED*) to be satisfied. For carriers in this state, the equipment estimates the time that the carrier is ready to be unloaded, and checks for the possible abort condition(10.7.8.5 *Condition for the PREDICTION ABORTED*).		
	Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)				
	Discussion	None				
	Result of Vote (check one)	11 Y-0 N; Motion passed.				
			[Negative is related and persuasive.] > 1/3	**Is a technical change recommended? (check one)**	Y	GO TO "Address by Technical Change Option" subsection
			[Negative is related and not persuasive.] < 2/3		N	GO TO "Final" subsection → (E)
			2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)		
		X	90% ≤ [Negative is related and not persuasive.]	GO TO "Not Significant Finding Option" subsection		

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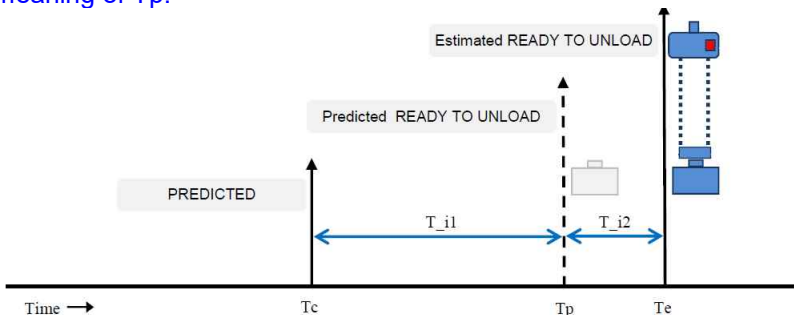|				
Not Significant	This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)			
	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**
Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**	
			(B)	Not related **(counted under i in disposition)**	
			(C)	Related and not persuasive (significant)	
		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**		

Negative 3

Negative	**Referenced Section/ Paragraph**	*TF/TC Chapter to fill in, including text in the ballot if necessary.		
		1.2.5		
	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.		
		In 10.7.3.5.3, For carriers in this state, the equipment no longer calculates the time until READY TO UNLOAD. (1) RADY TO UNLOAD is a name of state of Load Port Carrier Transfer Status in E87. That is not a state of the Carrier. (2) It can be read as "equipment does not calculate the time before RTU", because "until" expresses continuing time. (3) The text should be corrected like "In this state, the equipment is no longer required to estimate the time." or something.		
TF input (optional)				
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
			Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Related	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**
Persuasive	**Motion and Reason (check one)**		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**	
		X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**	

		Reason	(1) There is no problem because it is the same inside E87. (2) & (3) 10.7.3.5.3 The contents (the equipment no longer calculates the time until READY TO UNLOAD.) provides clear information to users. 10.7.3.5.3 *PREDICTION ABORTED* — this is a sub-state of CARRIER READY TO UNLOAD PREDICTION STATUS and is active when the abort condition (10.7.8.5 *Condition for PREDICTION ABORTED*) is satisfied. For carriers in this state, the equipment no longer calculates the time until READY TO UNLOAD.					

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)	
Discussion	None	

Result of Vote (check one)		11 **Y**-0 **N**; Motion passed.					
		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended? (check one)**		**Y**	GO TO "Address by Technical Change Option" subsection
		[Negative is related and not persuasive.] < 2/3			**N**	GO TO "Final" subsection → (E)
		2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)			
	X	90% ≤ [Negative is related and not persuasive.]	GO TO "Not Significant Finding Option" subsection			

Not Significant				
	This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.6.4.4.2)			
	Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	GO TO "Final" subsection → (D)

Final					
	(check if applicable)		**(A)**	Withdrawn **(counted under h in disposition)**	
			(B)	Not related **(counted under i in disposition)**	
			(C)	Related and not persuasive (significant)	
		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**		

Negative 4

Negative		
	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary.
		1.2.7
	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.

		In 10.7.8.2,
		
		Tc: The time of the condition calculation
		
		The expression is not accurate. It should be defined with two meaning.
		  (1) The time at which equipment estimated the time of the carrier being ready for unload, before the prediction is determined.
		  (2) The time at which equipment determined the prediction.	

TF input (optional)			
Withdrawal (check one)		X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
			Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Rela ted	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**
Persuasive	**Motion and Reason (check one)**		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**	
		X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**	
		Reason	10.7.8.2 Tc definition is sufficient for understanding because Figure 3 Carrier Ready To Unload Prediction Behavior and Tc definition in below clearly explain the meaning of Tc. **Figure 3** **Carrier Ready To Unload Prediction Behavior** 10.7.8.2 Figure 3 shows the time Tc at which the equipment predicts the time for READY TO UNLOAD. At this time Tc the equipment calculates that the carrier will be ready for pick-up at the predicted time Tp. After this time Tc the equipment calculates continually the actual time Te at which the carrier can actually be picked up. The two interval times T_i1 and T_i2 represent the time between the current time and the predicted time as well as between predicted time and actual time of readiness for unload, respectively. • Tc: The time of the condition calculation. • Tp: The predicted time when the carrier's load port will be READY TO UNLOAD at Tc. • Te: The estimated time when the carrier's load port will be READY TO UNLOAD after Tc. • T_i1: The time interval in seconds between Tc and Tp(T_i1 = Tp – Tc) • T_i2: The time interval in seconds between Tp and Te(T_i2 = Te – Tp).	
	Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)		
	Discussion	None		
		11 **Y**-0 **N**; Motion passed.		

Result of Vote **(check one)**			[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** **(check one)**	Y	**GO TO "Address by Technical Change Option" subsection**
			[Negative is related and not persuasive.] < 2/3		N	**GO TO "Final" subsection → (E)**
			2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**		
		X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**		

Not Significant	**This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)**			
	Use of "Not significant finding option" **(check one)**	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**	
			(B)	Not related **(counted under i in disposition)**	
			(C)	Related and not persuasive (significant)	
		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**		

Negative 5

Negative	**Referenced Section/ Paragraph**	***TF/TC Chapter to fill in, including text in the ballot if necessary.**
		1.2.7
	Negative Text	***Original complete Negative text (e.g., issue, justification, suggestion) should be copied.**
		In 10.7.8.2, Tp: The predicted time when the carrier's load port will be READY TO UNLOAD at Tc. The expression is not accurate. It should be defined with two meaning. (1) The predicted time of the carrier being ready for unload, estimated by equipment, before the prediction is determined. (2) The determined time of the prediction.

TF input (optional)		

Withdrawal **(check one)**	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
		Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Related **Motion and Reason** **(check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**

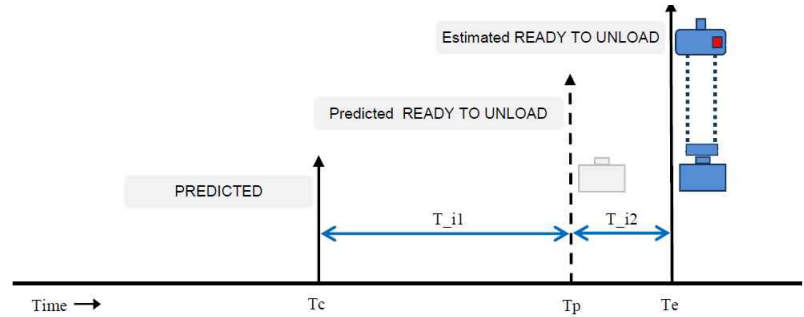| Persuasive	Motion and Reason (check one)			
				Negative is related and persuasive. **(Needs >1/3 votes to pass.)**
		X		Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**
			Reason	10.7.8.2 Tp definition is sufficient for understanding because Figure 3 Carrier Ready To Unload Prediction Behavior and Tc definition below clearly explain the meaning of Tp.

Estimated READY TO UNLOAD

Predicted READY TO UNLOAD

PREDICTED

T_i1 T_i2

Time →   Tc   Tp   Te

Figure 3
Carrier Ready To Unload Prediction Behavior

10.7.8.2 Figure 3 shows the time Tc at which the equipment predicts the time for READY TO UNLOAD. At this time Tc the equipment calculates that the carrier will be ready for pick-up at the predicted time Tp. After this time Tc the equipment calculates continually the actual time Te at which the carrier can actually be picked up. The two interval times T_i1 and T_i2 represent the time between the current time and the predicted time as well as between predicted time and actual time of readiness for unload, respectively.

- Tc: The time of the condition calculation.
- Tp: The predicted time when the carrier's load port will be READY TO UNLOAD at Tc.
- Te: The estimated time when the carrier's load port will be READY TO UNLOAD after Tc.
- T_i1: The time interval in seconds between Tc and Tp($T\_i1 = Tp - Tc$)
- T_i2: The time interval in seconds between Tp and Te($T\_i2 = Te - Tp$).

	Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
	Discussion	None

Result of Vote (check one)

11 **Y**-0 **N**; Motion passed.

		Is a technical change recommended? (check one)			
	[Negative is related and persuasive.] > 1/3			Y	**GO TO "Address by Technical Change Option" subsection**
	[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
	2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final — (check if applicable)

	(A)	Withdrawn **(counted under h in disposition)**
	(B)	Not related **(counted under i in disposition)**
	(C)	Related and not persuasive (significant)
X	(D)	Not significant **(counted under j in disposition)**

				Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(E)		
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			Comment generated. **See Section V-(ii) Comment #**	

Negative 6

<table>
<tr>
<td rowspan="11">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="4">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="4">1.2.7</td>
</tr>
<tr>
<td rowspan="2">Negative Text</td>
<td colspan="4">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
</tr>
<tr>
<td colspan="4">

In 10.7.8.4,

$T\_i1 \leq CaRTUPSettingTime$

$T\_i1 = (Tp - Tc)$.

It should be noted that Tc and Tp are of the before the prediction is determined. See the idea in the figure posted later in this document, for alternative expression that might be better.

</td>
</tr>
</table>

TF input (optional)			
Withdrawal (check one)	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
		Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Related — **Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**
Persuasive — **Motion and Reason (check one)**		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**	
	X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**	

	Reason	**10.7.8.4 Condition for the PREDICTED and Figure 3 Carrier Ready To Unload Prediction Behavior provides clear information to users.** **Figure 3** **Carrier Ready To Unload Prediction Behavior** 10.7.8.2 Figure 3 shows the time Tc at which the equipment predicts the time for READY TO UNLOAD. At this time Tc the equipment calculates that the carrier will be ready for pick-up at the predicted time Tp. After this time Tc the equipment calculates continually the actual time Te at which the carrier can actually be picked up. The two interval times T_i1 and T_i2 represent the time between the current time and the predicted time as well as between predicted time and actual time of readiness for unload, respectively. • Tc: The time of the condition calculation. • Tp: The predicted time when the carrier's load port will be READY TO UNLOAD at Tc. • Te: The estimated time when the carrier's load port will be READY TO UNLOAD after Tc. • T_i1: The time interval in seconds between Tc and Tp($T\_i1 = Tp - Tc$) • T_i2: The time interval in seconds between Tp and Te($T\_i2 = Te - Tp$). 10.7.8.4 *Condition for the PREDICTED* — this state shall be assumed, when ALL of the following conditions have been fulfilled: • $T\_i1 \leq$ CaRTUPSettingTime, i.e. the CARRIER READY TO UNLOAD PREDICTION state model shall transition to the PREDICTED state whenever the equipment determines that the currently predicted time at which the carrier is ready to unload is less than the CaRTUPSettingTime later than the current time. • The equipment has determined the load port at which the carrier will be ready for unload. For internal buffer equipment, the equipment is required to predict one carrier per load port at one time. Each of the carriers queued to a load port shall remain in the WAITING FOR PREDICTION state until the carrier currently in the load port is removed.	

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion	None

11 Y-0 N; Motion passed.

Result of Vote (check one)		[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)		Y	**GO TO "Address by Technical Change Option" subsection**
		[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
		2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
	X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Not Significant	**Use of "Not significant finding option"** (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

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Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**
			(B)	Not related **(counted under i in disposition)**
			(C)	Related and not persuasive (significant)
		X	**(D)**	Not significant **(counted under j in disposition)**
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #**	

Negative 7

Negative	**Referenced Section/ Paragraph**	***TF/TC Chapter to fill in, including text in the ballot if necessary.***
		1.2.7
	Negative Text	***Original complete Negative text (e.g., issue, justification, suggestion) should be copied.***
		10.7.8.4 the CARRIER READY TO UNLOAD PREDICTION state model shall transition to the PREDICTED state whenever the equipment determines that the currently predicted time at which the carrier is ready to unload is less than the CaRTUPSettingTime later than the current time.

Remove the text.
The comparison equation $T\_i1 \leq$ CaRTUPSettingTime has expressed enough of the condition. It makes readers somewhat confused.

 |
	TF input (optional)	
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	**GO TO "Related" subsection**
			Withdrawal document received by Standards staff on	**GO TO "Final" subsection → (A)**
Related	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**	**GO TO "Persuasive" subsection**

Persuasive	**Motion and Reason (check one)**		Negative is related and persuasive. **(Needs >1/3 votes to pass.)**
		X	Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**

<table>
<tr><td rowspan="11">Persuasive</td><td rowspan="3">Motion and Reason (check one)</td><td></td><td>Negative is related and persuasive. (Needs >1/3 votes to pass.)</td></tr>
<tr><td>X</td><td>Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td></tr>
<tr><td>Reason</td><td>

It is an example of the equation for better understanding. The equation, however, already provides clear information to users.

10.7.8.4 *Condition for the PREDICTED* — this state shall be assumed, when ALL of the following conditions have been fulfilled:

- $T\_i1 \leq CaRTUPSettingTime$, i.e. the CARRIER READY TO UNLOAD PREDICTION state model shall transition to the PREDICTED state whenever the equipment determines that the currently predicted time at which the carrier is ready to unload is less than the CaRTUPSettingTime later than the current time.
- The equipment has determined the load port at which the carrier will be ready for unload.

For internal buffer equipment, the equipment is required to predict one carrier per load port at one time. Each of the carriers queued to a load port shall remain in the WAITING FOR PREDICTION state until the carrier currently in the load port is removed.

</td></tr>
<tr><td>Motion by/ 2nd by</td><td colspan="2">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td></tr>
<tr><td>Discussion</td><td colspan="2">None</td></tr>
<tr><td rowspan="5">Result of Vote (check one)</td><td colspan="2">11 Y-0 N; Motion passed.</td></tr>
</table>

Result of Vote (check one) — 11 **Y**-0 **N**; Motion passed.

		Is a technical change recommended? (check one)			
	[Negative is related and persuasive.] > 1/3			Y	**GO TO "Address by Technical Change Option" subsection**
	[Negative is related and not persuasive.] < 2/3			N	**GO TO "Final" subsection → (E)**
	2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final

(check if applicable)			
		(A)	Withdrawn **(counted under h in disposition)**
		(B)	Not related **(counted under i in disposition)**
		(C)	Related and not persuasive (significant)
	X	**(D)**	Not significant **(counted under j in disposition)**
		(E)	Related and persuasive and not addressed by technical change — **DOCUMENT FAILS**
		(F)	Addressed by technical change **(counted under k disposition)**
(check if applicable)			Comment generated. **See Section V-(ii) Comment #**

Disposition of Voting Interest Reject 8
Check only when the Document has not been failed.

7	Original number (#) of Negatives	**(g)**

0	Number of Negatives withdrawn			**(h)**
0	Number of Negatives found not related			**(i)**
7	Number of Negatives found not significant			**(j)**
0	Number of Negatives addressed by technical change **(Negative becomes not significant)**			**(k)**
Final	X	$g - (h + i + j + k) = 0$	**Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check***
		$g - (h + i + j + k) > 0$	**Reject is included in the denominator of § VI. *Approval Conditions Check***
		Reject without a Negative	**Not Valid**

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 9 (Voting Interest Name: NaigaiTEC)
Voter Reject 1 (Voter: Ogihara Hideaki)

Negative 1

<table>
<tr><td rowspan="4">Negative</td><td rowspan="2">Referenced Section/ Paragraph</td><td colspan="3">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td><td></td></tr>
<tr><td colspan="3">N/A</td><td></td></tr>
<tr><td rowspan="2">Negative Text</td><td colspan="3">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td><td></td></tr>
<tr><td colspan="3"></td><td></td></tr>
<tr><td colspan="2">TF input (optional)</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Withdrawal (check one)</td><td colspan="2">X</td><td>No Negative withdrawal made by Voter.</td><td>GO TO "Related" subsection</td></tr>
<tr><td colspan="2"></td><td>Withdrawal document received by Standards staff on</td><td>GO TO "Final" subsection → (A)</td></tr>
<tr><td rowspan="8">Related</td><td rowspan="3">Motion and Reason (check one)</td><td colspan="2"></td><td>'Related' is mutually agreed upon. (Needs no motion.)</td><td>GO TO "Persuasive" subsection</td></tr>
<tr><td colspan="2">X</td><td>Negative is not related. (Needs ≥2/3 votes to pass.)</td><td></td></tr>
<tr><td>(black)</td><td>Reason</td><td colspan="2">No negative is submitted by the voter</td></tr>
<tr><td>Motion by/ 2nd by</td><td colspan="4">Byeongmin Im (TEL)/ Hyungsu Kim (Doople)</td></tr>
<tr><td>Discussion</td><td colspan="4">None</td></tr>
<tr><td rowspan="3">Result of Vote (check one)</td><td colspan="4">11 Y-0 N; Motion passed.</td></tr>
<tr><td colspan="2"></td><td>[Negative is not related.] < 2/3</td><td>GO TO "Persuasive" subsection</td></tr>
<tr><td colspan="2">X</td><td>2/3 ≤ [Negative is not related.]</td><td>GO TO "Final" subsection → (B)</td></tr>
<tr><td rowspan="7">Final</td><td rowspan="6">(check if applicable)</td><td></td><td>(A)</td><td>Withdrawn (counted under h in disposition)</td><td></td></tr>
<tr><td>X</td><td>(B)</td><td>Not related (counted under i in disposition)</td><td></td></tr>
<tr><td></td><td>(C)</td><td>Related and not persuasive (significant)</td><td></td></tr>
<tr><td></td><td>(D)</td><td>Not significant (counted under j in disposition)</td><td></td></tr>
<tr><td></td><td>(E)</td><td>Related and persuasive and not addressed by technical change</td><td>DOCUMENT FAILS</td></tr>
<tr><td></td><td>(F)</td><td>Addressed by technical change (counted under k disposition)</td><td></td></tr>
<tr><td>(check if applicable)</td><td></td><td colspan="3">Comment generated. See Section V-(ii) Comment #</td></tr>
</table>

Disposition of Voting Interest Reject 9
Check only when the Document has not been failed.

1	Original number (#) of Negatives	**(g)**
0	Number of Negatives withdrawn	**(h)**
1	Number of Negatives found not related	**(i)**
0	Number of Negatives found not significant	**(j)**

0	Number of Negatives addressed by technical change **(Negative becomes not significant)**		**(k)**	
Final		$g - (h + i + j + k) = 0$	**Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check***	
		$g - (h + i + j + k) > 0$	**Reject is included in the denominator of § VI. *Approval Conditions Check***	
	X	Reject without a Negative	**Not Valid**	

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

Voting Interest Reject 10 (Voting Interest Name: Self)
Voter Reject 1 (Voter: Terry Asakawa)
Negative 1

<table>
<tr>
<td rowspan="5">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td>*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
<td colspan="2"></td>
</tr>
<tr>
<td>N/A</td>
<td colspan="2"></td>
</tr>
<tr>
<td rowspan="3">Negative Text</td>
<td>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
<td colspan="2"></td>
</tr>
<tr>
<td>• The specifications proposed by #4946 shall be optional, however, only section 10.7.8 is written as 'Additional CMS Capabilities' and other revisions are written as mandatories. Every revision which is optional shall clearly be noted as 'Optional'.</td>
<td colspan="2"></td>
</tr>
<tr>
<td>• Since definitions of optional specifications for optional functions which are scattered on many sections confuse/mislead readers, those definitions should be gathered and concluded under one section (maybe under 10.7.8)</td>
<td colspan="2"></td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="3">This reject is same as for
• Reject 1 Voter 1 Negative 1 submitted by Naoko Murata (TEL)</td>
</tr>
<tr>
<td colspan="2" rowspan="2">Withdrawal (check one)</td>
<td>X</td>
<td>No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td></td>
<td>Withdrawal document received by Standards staff on</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="1">Related</td>
<td>Motion and Reason (check one)</td>
<td>X</td>
<td>'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td rowspan="2">Persuasive</td>
<td rowspan="2">Motion and Reason (check one)</td>
<td></td>
<td>Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
<td></td>
</tr>
</table>

			Reason	• 4946D is a logic-based implementation on Carrier Object. So it is much easier for reader/user to understand when it is with existing CARREIR State Model Diagram rather than standing alone. It also gives uniformity to overall E87. • As 4946D is for adding an additional CMS Capabilities on Table 39, it is clearly indicated that it is not a fundamental by describing "N" in "Requirement" column in Table 39. "N" described in "Rqmt" column of the Object Attribute has been using in many other SEMI Software standards now. E90 is a perfect example of the case. • E30 5.2 *Object Attribute Representation* — The object information models for standardized objects will be supported by an attribute definition table with the following column headings: | Attribute Name	Definition	Access	Rqmt	Form
The formal text name of the attribute	Description of the information contained	RO or RW	Y or N	(See Section 4.2.4.) | 5.2.1 The Access column uses RO (Read Only) or RW (Read and Write) to indicate the access that users of the service have to the attribute. 5.2.2 A "Y" or "N" in the Requirement (Reqt) column indicates if this attribute must be supported in order to meet fundamental compliance for the service.

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)			
Discussion	None			

Result of Vote (check one)

11 **Y**-0 **N**; Motion passed.

		Is a technical change recommended? (check one)		
	[Negative is related and persuasive.] > 1/3		Y	**GO TO "Address by Technical Change Option" subsection**
	[Negative is related and not persuasive.] < 2/3		N	**GO TO "Final" subsection → (E)**
	2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**		
X	90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**		

Not Significant

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.4.4.2)

Use of "Not significant finding option" (check one)	X	It is mutually agreed upon to term the Negative "not significant".	**GO TO "Final" subsection → (D)**

Final

(check if applicable)			
	(A)	Withdrawn **(counted under h in disposition)**
	(B)	Not related **(counted under i in disposition)**
	(C)	Related and not persuasive (significant)

		X	**(D)**	Not significant **(counted under j in disposition)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			Comment generated. **See Section V-(ii) Comment #**	

Disposition of Voting Interest Reject 10

Check only when the Document has not been failed.

1	Original number (#) of Negatives		**(g)**	
0	Number of Negatives withdrawn		**(h)**	
0	Number of Negatives found not related		**(i)**	
1	Number of Negatives found not significant		**(j)**	
0	Number of Negatives addressed by technical change **(Negative becomes not significant)**		**(k)**	
Final	X	**g - (h + i +j + k) = 0**	**Reject is Not Valid and is not included in the denominator of § VI.** *Approval Conditions Check*	
		g - (h + i +j + k) >0	**Reject is included in the denominator of § VI.** *Approval Conditions Check*	
		Reject without a Negative	**Not Valid**	

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations*** ¶ 9.4.3.3)**
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations*** ¶ 9.6.4.4.2)**

V. Comments
V- (i) Voters' Comments
Commenter 1 (Mochizuki Tadashi/TEL) - Comment 1

<table>
<tr>
<td rowspan="2">Comment</td>
<td colspan="3">*TF/TC Chapter to fill in section/paragraph #, if necessary.</td>
</tr>
<tr>
<td colspan="3">I found the editorial error for the 2nd condition sentences of 10.7.8.5 PREDICTION ABORTED. "CaRTUPTimeOut" is correct.</td>
</tr>
<tr>
<td rowspan="6">Action</td>
<td colspan="3">**The TC Chapter agreed to do one of the following actions.**</td>
</tr>
<tr>
<td colspan="3">*No motion is required in this step.</td>
</tr>
<tr>
<td></td>
<td colspan="2">Already addressed by Commenter #, Comment #</td>
</tr>
<tr>
<td></td>
<td colspan="2">No further action was taken by the TC Chapter.</td>
</tr>
<tr>
<td></td>
<td colspan="2">Refer to the TF for more consideration.</td>
</tr>
<tr>
<td></td>
<td colspan="2">New Business</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td colspan="2">Editorial Change</td>
</tr>
<tr>
<td></td>
<td rowspan="4">Options for editorial change **(check one)**</td>
<td></td>
<td>**Case 1: No vote in this section:**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To be included and voted on as a group in § VI. *Editorial Changes Other than Those Voted on in § V.*</td>
</tr>
<tr>
<td></td>
<td rowspan="2">X</td>
<td>**Case 2: Voted in this section:**</td>
</tr>
<tr>
<td></td>
<td>Original section number and at least one full sentence are required in "FROM" and "TO" fields.</td>
</tr>
<tr>
<td>Editorial Changes</td>
<td>1</td>
<td colspan="2">**FROM: Section/Paragraph 1.2.7/10.7.8.5**

10.7.8.5 *Condition for the PREDICTION ABORTED* — this state shall be assumed, when at least one of the following conditions is fulfilled:

- If the CARRIER READY TO UNLOAD PREDICTION status is WAITING FOR PREDICTION and the equipment can't estimate the time for READY TO UNLOAD caused by a problem on the equipment.

- $T\_i2 ≥ CaRTUPTimeOut$, i.e. In the PREDICTED state, the estimated time of the carrier getting ready for unloading exceeded the time specified in CaRTUTPTimeOut past the predicted time.

- The equipment has changed the load port at which the carrier will be ready for unload.</td>
</tr>
</table>

		TO: Section/Paragraph **1.2.7/10.7.8.5**
		10.7.8.5 *Condition for the PREDICTION ABORTED* — this state shall be assumed, when at least one of the following conditions is fulfilled:
		• If the CARRIER READY TO UNLOAD PREDICTION status is WAITING FOR PREDICTION and the equipment can't estimate the time for READY TO UNLOAD caused by a problem on the equipment.
		• T_i2 ≥ CaRTUPTimeOut, i.e. In the PREDICTED state, the estimated time of the carrier getting ready for unloading exceeded the time specified in <u>CaRTUPTimeOut</u> past the predicted time.
		The equipment has changed the load port at which the carrier will be ready for unload.
		Justification (If necessary) Typo

Motion	To approve above editorial change(s)
Motion by/2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion	None
Vote	11 **Y**-0 **N**; Motion passed.

Commenter 2 (Mitsuhiro Matsuda/Hitachi) - Comment 1

Comment		***TF/TC Chapter to fill in section/paragraph #, if necessary.**
		It is recommended that these proposals should make one new separate chapter (before Chapter "21 Requirements for Compliance"). It makes clear that these requirements are optional and Standard user may understand easily.
Action		**The TC Chapter agreed to do one of the following actions.**
		***No motion is required in this step.**
		Already addressed by Commenter #, Comment #
	X	No further action was taken by the TC Chapter.
		Refer to the TF for more consideration.
		New Business
		Editorial Change
	Options for editorial change **(check one)**	Case 1: No vote in this section:
		To be included and voted on as a group in § VI. *Editorial Changes Other than Those Voted on in § V*.
		Case 2: Voted in this section:
		Original section number and at least one full sentence are required in "FROM" and "TO" fields.

Commenter 3 (Masaya Nagata/TEL) - Comment 1

<table>
<tr><td rowspan="2">Comment</td><td colspan="2">*TF/TC Chapter to fill in section/paragraph #, if necessary.</td></tr>
<tr><td colspan="2">Tc, Tp and Te SHOULD BE PROIVDED AS Variable Data because an AMHS scheduler may need these data to decide the timing to dispatch an AMHS for that equipment.</td></tr>
<tr><td rowspan="7">Action</td><td colspan="2">The TC Chapter agreed to do one of the following actions.</td></tr>
<tr><td colspan="2">*No motion is required in this step.</td></tr>
<tr><td></td><td>Already addressed by Commenter #, Comment #</td></tr>
<tr><td>X</td><td>No further action was taken by the TC Chapter.</td></tr>
<tr><td></td><td>Refer to the TF for more consideration.</td></tr>
<tr><td></td><td>New Business</td></tr>
<tr><td></td><td>Editorial Change</td></tr>
</table>

	Options for editorial change (check one)		Case 1: No vote in this section:
			To be included and voted on as a group in § VI. *Editorial Changes Other than Those Voted on in § V*.
			Case 2: Voted in this section:
			Original section number and at least one full sentence are required in "FROM" and "TO" fields.

V-(ii) Comments Created by Handling Negative
None

VI. Editorial Changes Other than Those Voted on in § V
None

VII. Approval Conditions Check
VII. - (i). Approval Rate
APPROVAL CONDITION 1: All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (*Regulations* ¶ 9.7.1.2)

APPROVAL CONDITION 2: At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (*Regulations* ¶ 9.7.1.3)

Note: If both approval conditions are not satisfied, the Document fails.

		Accepts		(Accepts + Valid Rejects)			
Approval Rate	=	48	/	48	=	100.0%	≥90%

VII. – (ii) Approval Level (check one)

Note: See *Regulations* § 9.7.2 for further information.

	Globally Approved (No Ratification Ballot needed): Line Item 1 meets the Letter Ballot approval conditions for the global technical committee.
X	**Need a Ratification Ballot:** Line Item 1 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

Checks for Entire Document Including All Approved Line Items

VIII. Safety Check

Note: This Safety check applies to the entire Standard or Safety Guideline including all the approved Line Items. See § 15 of the *Regulations* for further information.

Motion	X	**This is not a Safety Document**, when all safety-related information is removed, the Document is still technically sound and complete. (*Regulations* ¶ 8.7.1)
		This is a Safety Document, when all safety-related information is removed, the Document is not technically sound and complete. (*Regulations* ¶ 8.7.2)
		Safety Checklist (*Regulations* ¶ 15.3) is complete and has been included with the Document throughout the balloting process. (*Regulations* ¶ 15.1.2)
Motion by/2ⁿᵈ by		Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion		None
Vote		11 **Y**-0 **N**; Motion passed.

IX. Intellectual Property (IP) Check

Note: This IP check applies to the entire Standard or Safety Guideline including all the approved Line Items. See § 16 of the *Regulations* for further information.

X	The TC Chapter meeting chair asked those participating, if they were aware of any potentially material patented technology or copyrighted items* in the Standard or Guideline. (*Regulations* ¶ 8.8.1)		
	X	No potentially material patented technology or reproduction of copyrighted items is known.	**GO TO SECTION X.**
		Potentially material patented technology or reproduction of copyrighted items is known, but a Letter of Assurance (LOA) or copyright release letter for such items has been obtained or presented to the TC Chapter.	**GO TO SECTION X.**
		Potentially material patented technology or reproduction of copyrighted items is known and use of such materials is technically justified by the TC Chapter, but an LOA or copyright release letter for some of the item(s) has NOT been obtained or presented to the TC Chapter.	
	Motion	Ask ISC for special permission to publish.	
		Quit activity.	
		Wait for LOA for patented technology or release of copyrighted items.	
Motion by/2ⁿᵈ by		Name (Company)/Name (Company)	
Discussion		XXXX	
Vote		XX **Y**-XX **N**	
Final Action		Motion passed	
		Motion failed	

* Note: Such potentially material patented technology or copyrighted items might have become known since the Standard or Safety Guideline was last reviewed, or might become relevant due to this Letter Ballot.

A&R Ballot Report Template (Line Item) Revision 1.4

X. Action for This Document

Motion (Check all applicable items)		
		Line item(s) [X], [X] and [X] passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
		Line item(s) [X], [X] and [X] passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review.
	X	Line item(s) [1] passed TC Chapter review with technical changes and with or without editorial changes and will be forwarded to the ISC A&R SC for procedural review. A Ratification Ballot will be issued to verify the technical changes.
		Line item(s) [X], [X] and [X] failed TC Chapter review and will be returned to the TF for rework.
		Line item(s) [X], [X] and [X] failed TC Chapter review and work will be discontinued.

Motion by/ 2nd by	Byeongmin Im (TEL)/ Hyungsu Kim (Doople)
Discussion	None
Vote	11 Y-0 N
Final Action	X Motion passed
	Motion failed

Standards staff to record the result of the A&R procedural review here:

A&R		
		Line item(s) [X], [X] and [X] are Approved for publication
		Line item(s) [X], [X] and [X] are Approved pending acceptance of the Ratification Ballot
		Line item(s) [X], [X] and [X] are Not approved
	Reason:	