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## Design Review sop

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Procedure  
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## 1. LIST OF ABBREVIATIONS

Abbreviation	Definition
CHESS	Collaborative Home ESS
Design Review Process Overview	Document supporting the design review process for a system. It is amended as the development evolves.
Open Document	Type of document in CHESS that is not subject to a formal approval.
SE	Systems Engineering
SEMP	Systems Engineering Management Plan
SOP	Standard Operating Procedure
Technical Baseline	Sub set of the integrated baseline as identified in the configuration management plan [1]

## 2. REFERENCES

- [1] Configuration Management Plan, ESS-0003688.
- [2] SEMP, ESS-0002908.
- [3] Change Control Process, ESS-0001879.
- [4] Guidelines for establishing a design review panel, ESS-0011298.
- [5] System Design Review Process form template, ESS-0011297.
- [6] Component Design Review Process form template, ESS-0010471.

### 3. PURPOSE

The objective of this SOP is to define a generic design review process that can be applied for all defined design reviews. Also it is to establish a clear link to the SE process [2] and change control process [3].

### 4. SCOPE

The scope of this SOP is the design review process that shall be applied when documented design reviews are needed. It is out of the scope for this SOP to define when such design reviews are to be conducted throughout the SE process and how to follow-up on identified design review findings.

This SOP can be applied to all design reviews, however the input and methods required for the design reviews comes from the SEMP.

### 5. ROLE AND RESPONSIBILITY

	REVIEW LEADER	REVIEWER	PROJECT ACCOUNTABLE
Plan review	R		A
Review items	I	R	A
Evaluate and prioritize review findings	I	C	R

Table 1: A = accountable, R = responsible, C = consulted, I = informed

- The REVIEW leader ensures that the REVIEW PROCESS is followed,
- The REVIEWER evaluates the items and provides the necessary competencies for the evaluation. Also the REVIEWER is included in the evaluation and prioritization of findings. An item reviewer shall not be the author of the reviewed item.
- The project accountable ensures that the correct material and information is provided to the REVIEW and has the authority to evaluate and prioritize REVIEW findings.

Guidelines about establishing a review panel and an review invitees list are developed in the reference [4].

### 6. PROCEDURE

A design review is a formal assessment of items to evaluate their adequacy, to identify potential inadequacies and issues and to institute changes accordingly. A review can serve different purposes and have various formats and thus require different levels of formality. However all reviews follow the same generic process as shown in Figure 1.

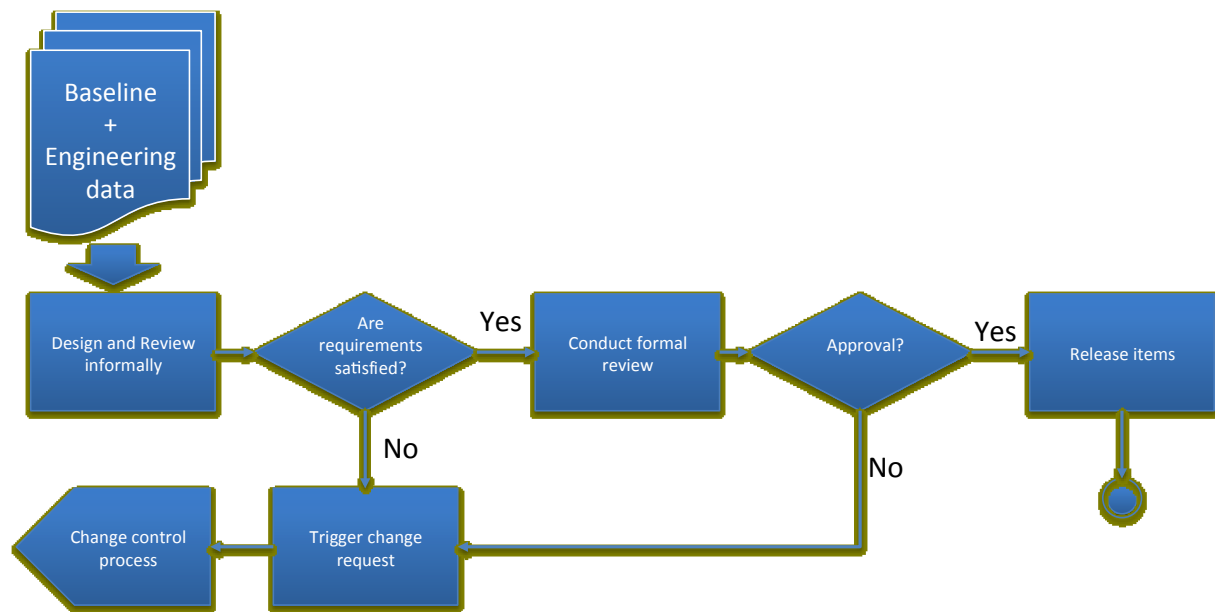


Figure 1: integrated review process.

<b>6.1 Design and review informally</b>	
The design activity is daily carried out based on the current baseline and additional engineering data. Trade off studies are performed, alternatives are scored against the requirements such that it is possible to informally review the adequacy of the proposed solution. As needed, workshops are held with the team, which has issued the requirements for ensuring a common interpretation of the baseline.	<b>Responsible:</b> PROJECT ACCOUNTABLE
<b>6.2 Are requirements satisfied?</b>	
When the design activity doesn't converge to an acceptable solution, a change request for the requirements that cannot be satisfied is initiated.	<b>Responsible:</b> PROJECT ACCOUNTABLE
<b>6.3 Trigger change request</b>	
A change leader is assigned. The CHANGE CONTROL PROCESS is used [3]	<b>Responsible:</b> PROJECT ACCOUNTABLE

<b>6.4 Conduct formal review</b>	
When the design activity converges to an acceptable solution, a formal review of the items is initiated. A REVIEW LEADER is assigned and shall have a CHES account. The REVIEW LEADER will plan the review. The PROJECT ACCOUNTABLE is consulted and provides data as needed. The REVIEWER(s) are identified, the DESIGN REVIEW PROCESS OVERVIEW form [5 or 6] is created or amended in CHES. It is an <i>open document</i> owned by the REVIEW LEADER. The date of the review is set up.	<b>Responsible:</b>  PROJECT ACCOUNTABLE
<b>6.5 Approval?</b>	
When the reviewed items are rejected, a change request for the requirements that cannot be satisfied is initiated.	<b>Responsible:</b>  PROJECT ACCOUNTABLE
<b>6.6 Release items</b>	
<p>When the reviewed items are approved, the PROJECT ACCOUNTABLE formally approves the items in CHES.</p> <p>The approved items are linked to the appropriate folder in the TECHNICAL BASELINE <a href="#">repository</a> in CHES (system name = folder name).</p>	<b>Responsible:</b>  PROJECT ACCOUNTABLE

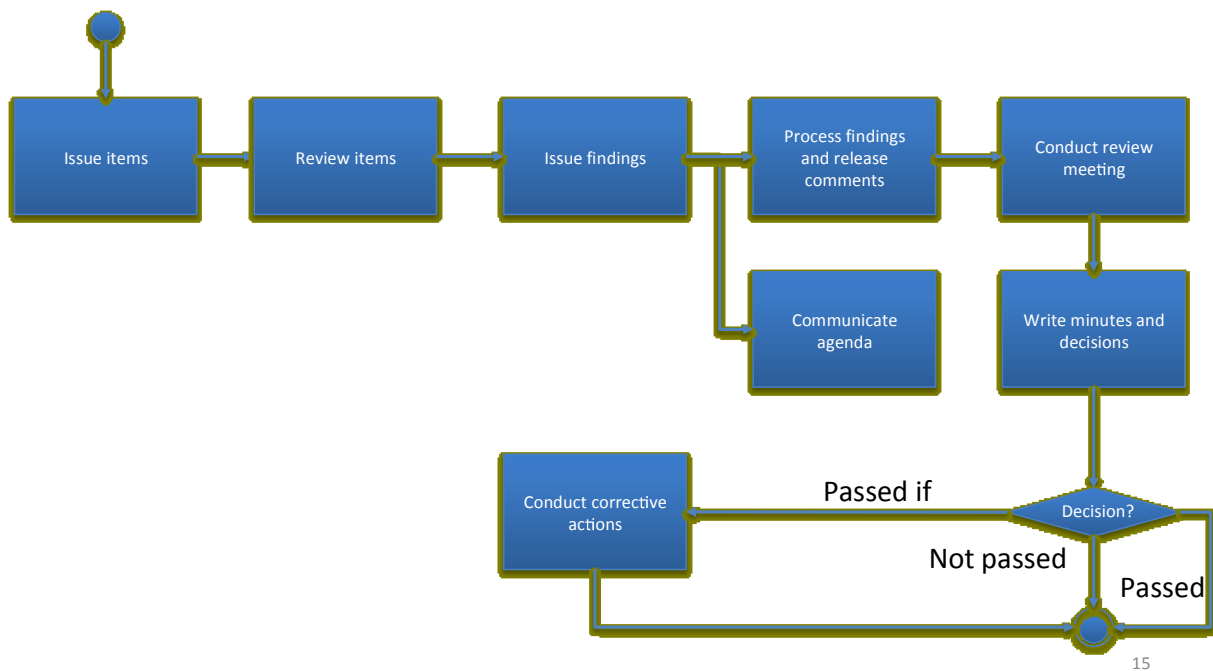


Figure 2: Details of "Conduct Formal Review".

<b>6.4.1 Issue items</b>	
<p>The PROJECT ACCOUNTABLE uploads items to be reviewed by creating new CHES documents as needed. The PROJECT ACCOUNTABLE starts the workflow.</p> <p>The REVIEW LEADER is assigned by the PROJECT ACCOUNTABLE as reviewer in the workflow managed with CHES. The REVIEW LEADER is the liaison officer with the REVIEWER(S).</p> <p>The REVIEW LEADER makes available the items to be reviewed to the REVIEWER(S).</p>	<p><b>Responsible:</b></p> <p>PROJECT ACCOUNTABLE</p> <p>and</p> <p>REVIEW LEADER</p>
<b>6.4.2 Review items</b>	
<p>The REVIEWER(S) develops findings and recommendations from the checklist in the DESIGN REVIEW PROCESS OVERVIEW form [5 or 6]. A unique answer is developed for each question. When a group constitutes the review panel, a chairman is assigned. The chairman is responsible for synthesising the REVIEWERS contribution for each question.</p> <p>The REVIEWER(S) proposes a first priority ranking regarding their recommendations.</p>	<p><b>Responsible:</b></p> <p>REVIEWER(S)</p>

<b>6.4.3 Issue Findings</b>	
<p>The REVIEWER(S) communicate his/her/their findings to the REVIEW LEADER.</p> <p>The REVIEW LEADER updates in CHESS the DESIGN REVIEW PROCESS OVERVIEW with the findings [5 or 6]. The REVIEW LEADER notifies the PROJECT ACCOUNTABLE.</p>	<p><b>Responsible:</b></p> <p>REVIEWER(S) and REVIEW LEADER</p>
<b>6.4.4.1 Process Findings and release comments</b>	
<p>From the findings, the reviewed items are changed as deemed necessary. Comments to the findings are prepared and sent to the REVIEW LEADER who communicates them to the REVIEWER(S).</p>	<p><b>Responsible:</b></p> <p>PROJECT ACCOUNTABLE</p>
<b>6.4.4.2 Release agenda</b>	
<p>The REVIEW LEADER communicates the review agenda with the list of presentations supporting the review to the PROJECT ACCOUNTABLE and the REVIEWER(S) and additional invitees as needed.</p>	<p><b>Responsible:</b></p> <p>REVIEW LEADER</p>
<b>6.4.5 Conduct review meeting</b>	
<p>Review findings and their responses are presented. Complementary information are exchanged as needed between the PROJECT ACCOUNTABLE and the REVIEWER(S).</p>	<p><b>Responsible:</b></p> <p>REVIEW LEADER</p>
<b>6.4.6 Write Minutes and decisions</b>	
<p>The PROJECT ACCOUNTABLE writes the review minutes and states if the reviewed items are either <i>approved</i> or <i>approved with corrective actions</i> or <i>rejected</i>.</p> <p>When the items are <i>approved with corrective actions</i>, actions are defined and assigned.</p>	<p><b>Responsible:</b></p> <p>PROJECT ACCOUNTABLE</p>
<b>6.4.7 Conduct corrective actions</b>	
<p>Prior to release, the approved items are modified as deemed necessary and as stated in the action list developed with the review minutes.</p>	<p><b>Responsible:</b></p> <p>PROJECT ACCOUNTABLE</p>