

OPERATIONAL EXCELLENCE ASSESSMENT USER GUIDE

Revision 1.0. April 2018



INTRODUCTION

This User Guide shows you how to download and use Revision 1.0 of the *Operational Excellence Assessment* system. Revision 1.0 is a limited capability test version that is available at no cost. We request that you try it out and then provide us with your evaluation using the Feedback form.

Background information to do with the system is provided in our white paper *Assessing Operational Excellence* and in a matching video. They can be accessed at the following addresses respectively:

- https://iansutton.com/operational_excellence/Assessing-Operational-Excellence.pdf
- <https://www.youtube.com/watch?v=Z51CKBOE-W8>

Note: This system consists of a set of Microsoft Excel worksheets and spreadsheets. Excel uses the term 'workbook' to connote an integrated collection of worksheets; a 'worksheet' is the same as a single spreadsheet.

Once we have reviewed the comments and feedback that we receive from this test version we will proceed to release complete workbooks and their associated commentaries for purchase.

FILE DOWNLOAD

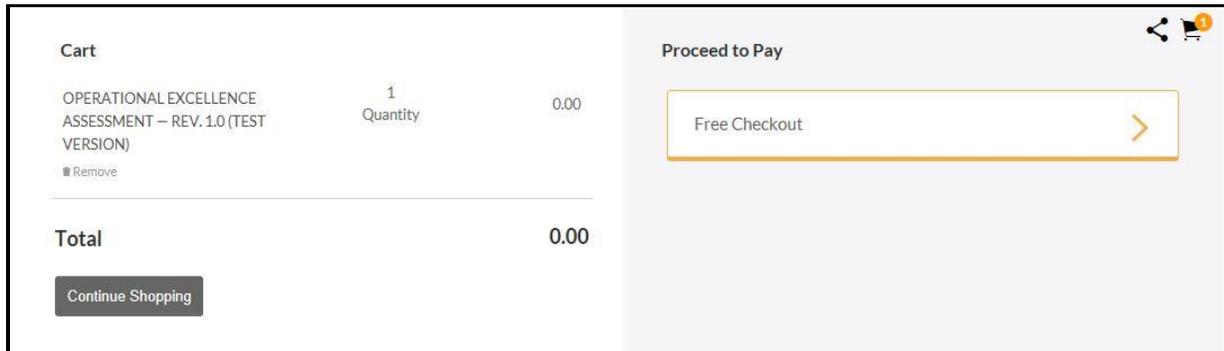
The files that you need to run the system are available in a zip folder that can be downloaded from the following address:

- <https://www.e-junkie.com/ecom/gb.php?c=cart&ejc=2&cl=315430&i=1574795>

The folder can also be downloaded from a link at our home page:

- <https://iansutton.com/#Operational-Excellence-Assessments>

When you follow the link you will see the following shopping cart screen.



You will be asked to provide your name and email address. However, you will not be asked to provide credit card information since this test product is free.

Download the following item:

OPERATIONAL EXCELLENCE ASSESSMENT — REV. 1.0 (TEST VERSION).

This is a zip folder that contains the following files.

- The top-level spreadsheet: **Operational-Excellence-Assessment.xlsx**
- A restricted version of the workbook: **17-Operational-Readiness.xlsx**
- The User Guide that you are reading now: **Operational-Excellence-User-Guide.pdf**
- A feedback form: **Operational-Excellence-Feedback.docx**
- The white paper: **Assessing-Operational-Excellence.pdf**

During the transfer process, and once you start opening files, you will be asked various security questions. These will vary according to the system that you are using.

Once the download process has finished we suggest that you create a new folder such as 'Operational-Excellence-Assessments' and transfer the files to it.

USING THE SYSTEM

Start by opening the Excel file **Operational-Excellence-Assessment.xlsx**.

Top-Level Summary

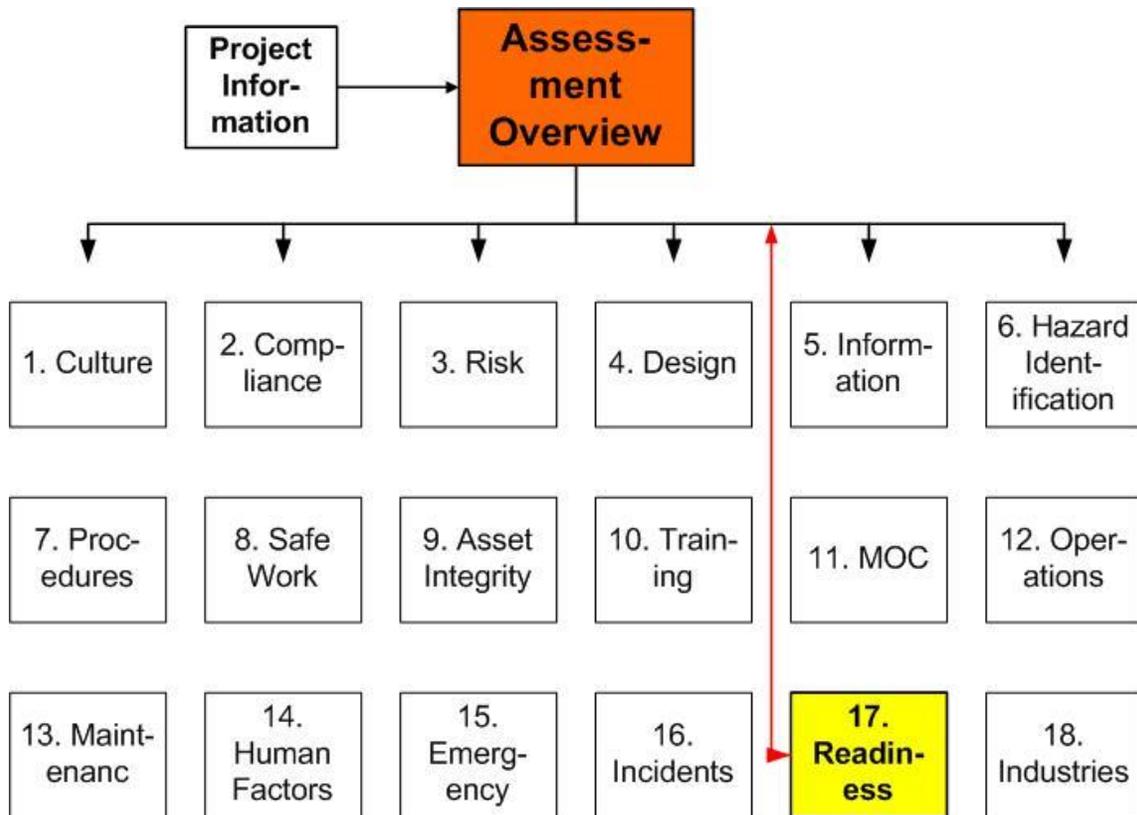
You will see the top level worksheet shown below.

Operational Excellence Assessment: Overview					
Rev. 1.0					
Project		User Guide			
Date	2018-04-01				
Company	ABC Enterprises				
Location	Anytown, Texas				
Facility	Gas Absorption				
Reviewer 1	Manuel Herrera				
Reviewer 2	Joe James				
Notes	This assessment is the first of its kind to be conducted at the Anytown facility.				
Category	Number of Questions	Number of Active Questions	Number of Active Sheets	Score	Evaluation
1. Culture					
2. Compliance and Standards					
3. Risk Analysis					
4. Safety in Design					
5. Information Management					
6. Hazard Identification					
7. Written Procedures					
8. Safe Work Practices					
9. Asset Integrity/Reliability					
10. Training and Performance					
11. Management of Change					
12. Operations					
13. Maintenance					
14. Human Factors/Health					
15. Emergency Response					
16. Incident Investigation					
17. Operational Readiness	128	117	10	64%	Acceptable
18. Industries					
Total	128	117	10	64%	Acceptable

There are two links on Row 3. The first takes you to the Project worksheet that provides the information shown on Rows 5 to 11. The Project Worksheet is not activated in this test version, but some sample information has been provided.

The second link (Row 3) takes you to the User Guide — the document that you are reading now.

We now come to the heart of the system: the top level worksheet. You can see that this sheet has 18 major categories — what Excel refers to as workbooks. Revision 1.0 looks at just one those workbooks: '17. Operational Readiness' (a topic that is sometimes referred to as Prestartup Safety Reviews). Its place in the overall structure is shown below.



We have pre-loaded the workbook with data — you will be able to change the values as we progress through this Guide. With regard to Operational Readiness we see that:

- Column B — There are 128 questions in this Workbook.
- Column C — Of these 117 of the questions are active.
- Column D — There are 10 active worksheets in the workbook.
- Column E — The overall score is 64%.
- Column F — This score generates an assessment of 'Acceptable'.

Operational Readiness Workbook

Now let's look at the Operational Readiness Review workbook. Please click on the term '17. Operational Readiness' (Cell A30). You will see the worksheet shown below.

	A	B	C	D	E
1	17. Operational Readiness				
2	Rev. 1.0				
3	OE Summary	Overview			
4					
5	Date	2018-04-01			
6	Company	ABC Enterprises			
7	Location	Anytown, Texas			
8	Facility	Gas Absorption			
9	Reviewer 1	Manuel Herrera			
10	Reviewer 2	Joe James			
11	Notes	This assessment covers the OSHA-required Prestartup Safety Review (PSSR) regulation. The review generally gave Acceptable results, with the exception of procedures and training. Also attention needs to be given to updating the Emergency Response program.			
12					
13	This workbook to be used	Yes			
14	Number of Active Sheets	10			
15					
16	Topic	Number of Questions	Number of Active Questions	Score	Evaluation
17	17.1 Organization				
18	17.1.1 Program	15	14	68%	Acceptable
19	17.1.2 Team	13	13	56%	Acceptable
20	17.1.3 Reporting	9	8	44%	Unacceptable
21	17.2 Review				
22	17.2.1 Startup Plan	13	13	73%	Acceptable
23	17.2.2 Procedures	8	6	17%	Unacceptable
24	17.2.3 Emergency	12	9	44%	Unacceptable
25	17.2.4 Site	15	13	71%	Acceptable
26	17.2.5 Equipment	17	17	75%	Acceptable
27	17.2.6 Instrumentation	13	13	75%	Acceptable
28	17.2.7 Piping and Valves	13	11	73%	Acceptable
29	Total	128	117	64%	Acceptable
30					

For the test version of this workbook we have activated just three topics:

17.1.1 Operational Excellence: Organization: Program

17.1.2 Operational Excellence: Organization: Team

17.2.4 Operational Excellence: Review: Site

You can inspect the other worksheets but you cannot change them.

At the top of this worksheet on line 3 are two links: 'OE Summary' and 'Overview'. Click on the 'OE Summary' link and you will be taken back to the summary worksheet that we have just left.

The Overview link provides a short description of the topic of Operational Readiness and Prestartup Safety Reviews. More detail is provided in the book [Process Risk and Reliability Management](#) and in the ebook [Prestart Reviews](#).

Cell A13 asks 'This workbook to be used?'. Click on cell B13 and a pop-up menu appears. It requires a "Yes/No" response. If the answer is "Yes" then the values entered into this workbook will flow up to the Summary sheet. If the answer is "No" then this workbook is excluded from the overall evaluation. Currently the value is set to "Yes".

Cell B14 shows the number of active sheets in this workbook. It is possible to deactivate individual sheets; in this example all the sheets are active so the number of active sheets equals the total number of all sheets.

The titles of the 10 worksheets are shown in Column A, starting at Row 18. Each sheet has a prefix of the form '17.a.b'.

- The number 17 refers to this workbook: 'Operational Readiness'.
- The second number — 'a' — refers to the categories into which the questions have been divided. In the case of Operational Readiness there are two categories: those to do with the organization of the review and those to do with the review process itself.
- The third number identifies the worksheet within the category.

Therefore, the number 17.1.1 means:

- The topic is Operational Readiness.
- The category is the Organization of the review.
- The questions are to do with the review Program.

Column B shows the number of questions for each program element or topic. So, for example, there are 15 questions to do with the topic '17.1.1 Operational Readiness: Organization: Program'.

Column C shows the number active questions. Some of the questions within a worksheet may be deactivated, hence the number of active questions may be less than the total number of questions. Referring to 17.1.1 once more, we see that one of the questions has been deactivated so the number of active questions is 14.

Column D provides the score for each of the worksheets. In this case the score for 17.2. is 68%.

Column E provides an evaluation of the score — in this case it is 'Acceptable'. (To review the evaluation criteria click on the word 'Evaluation' in cell E16. A pop-up menu shows you the criteria.)

Operational Readiness Worksheet

We will now look at the worksheet to do with '17.1.1 Operational Readiness: Organization: Program'. Please click on cell A18 (or on the 17.1.1 Program tab at the bottom of the worksheet). It takes you to the following worksheet.

	A	B	C	D
1	17.1.1 Operational Readiness: Organization: Program			
2	<i>Rev. 1.0</i>			
3				
4	OE Summary	17. Operational Readiness	Commentary	
5				
6	Date	2018-04-01		
7	Company	ABC Enterprises		
8	Location	Anytown, Texas		
9	Facility	Gas Absorption		
10	Reviewer 1	Manuel Herrera		
11	Reviewer 2	Joe James		
12	Notes	The system is well integrated into the overall process safety management system. However, it needs to be made clear that the operational readiness review represents an opportunity for operations management to reject the modified facility if they consider it to be		
13				
14	This sheet to be used?		Yes	
15				
16	Number of Questions	15		
17	Number of Active Questions	14		
18	Score	68%		
19				
20		Question	Score	Notes
21	17.1.1.1	Do the operations and maintenance teams understand that they are the customers and that the review gives them full authority not to accept the facility in its current condition?	1	Discussions indicate that managers in operations and maintenance do not always realize that they have the authority to stop a facility from being started if they think that it could be unsafe, even though regulations, such as the Pre-Startup Safety Review rule from OSHA, back up the managers with the force of law.
22	17.1.1.2	Are operational readiness (OR)/pre-startup safety reviews (PSSR) performed for all new facilities and for modified facilities when the modification is significant enough to require a change in process safety information?	3	There is an Prestartup Review program linked to the Management of Change element. Generally it is seen as working well.
		Are there guidelines for deciding when		No — there is not much
	◀ ▶	17. Readiness	17.1.1 Program	17.1.2 Team 17.1.3 Report

On Row 4 are three links.

1. OE Summary takes you to the top-level Summary sheet
2. 17. Operational Readiness takes you to the top level of this workbook (the sheet that we have just left).
3. The third link takes you to Commentary on the questions in this sheet.

Cell C14 asks if this sheet is to be used. This is a “Yes/No” menu. If you answer “No” the contents of the worksheet will not be rolled up to the higher level of the workbook or to the Summary worksheet.

Rows 16-18 summarize the number of questions, active questions and the overall score for this particular worksheet.

You can change any of the values in any of the cells, but we strongly recommend that you do not change the questions in Column B.

If you look at Row 21 you will see that we have given a value of ‘1’ in response to Question 17.1.1.1. The meaning of the scores are provided in a comment box at cell C21. Just point to that cell and you will see that it shows:

- 0. Missing / Not Acceptable
- 1. Poor
- 2. Adequate
- 3. Good
- 4. Excellent
- N/A Not applicable

So, in the judgment of the reviewer, Question 17.1.1.1 generates a response of ‘Poor’. Now, in your situation, you may decide that the score for Question 17.1.1 should be ‘3’, meaning ‘Good’. Change the value to ‘3’ and you will see that the overall score for this particular worksheet goes from 68% to 71%.

Column D is provides a space for the reviewer to enter free text notes. Change the information here as you see fit.

Now let’s look at the “Not Applicable” feature. Consider Question 17.1.1.9 on Row 29 to do with the introduction of new chemicals. Maybe no new chemicals are used so this question is considered to be not relevant. By entering “N/A” or “N” (actually any non-numerical entry) you can see that the number of questions remains the same at 15, but that the number of active questions drops to 14.

COMMENTARY

A crucial part of the Operational Excellence Assessment system is the Commentary feature. For each question we provide discussion and guidance. We must stress once more that this system is not an *Audit* — it is an *Assessment*. The guidance that we provide is just that — we do not provide the “right

answers”, nor do we provide audit checkboxes. The Commentary includes opinions. You are, of course, free to ignore or challenge those opinions, but it is suggested that you at least give them some consideration. You can also find the commentary for each worksheet by clicking on the word ‘Commentary’ in cell C4 or by clicking on the ‘17. Commentary’ tab at the bottom of the worksheet.

The Commentary worksheet for the topic ‘17.1.1 Operational Readiness: Organization: Program’ is shown below.

	A	B
7	Sheet 17.1.1 Operational Readiness: Organization: Program	
8	17.1.1.1	This is the single most important question in the Operational Readiness workbook. Those responsible for operating and maintaining the changed facility have full authority not to accept the modifications if they feel that, to do so, would create unacceptable safety problems.
9		
10	17.1.1.2	Many companies, particularly those covered by the OSHA process safety standard 29 CFR §1910.119, implement a Prestartup Safety Review (PSSR) program. In this workbook Operational Readiness and PSSR are treated as being the same system.
11		
12	17.1.1.3	It is important for each company and facility to provide clear guidelines regarding when an readiness review is required and when the facility is undergoing a simple restart. One way of evaluating this situation is to determine if the process safety information such as P&IDs or the operating procedures have changed.
13		
14	17.1.1.4	If a facility has been shut down for an extended period it should be reviewed before restart, even if there were no formal changes. One reason for this is that equipment and instrumentation could have fallen into a state of inoperability or disrepair. The review might focus on issues such as preventive maintenance and corrosion.
15		
16	17.1.1.5	Project teams are often under pressure to complete their work and to hand over the changed facility to operations. There is a concern that the operational review may be rushed.
17		
18	17.1.1.6	This question addresses the problems that may arise with scope creep and last-minute changes. It is important to make sure that these do not bypass the review.
19		
20	17.1.1.7	The reality of most projects is that some items are not closed out before the scheduled start up of the new system. This question helps identify those items that are not critical to safety (for example, some painting items). The issues that are critical to safety must be addressed.
21		
	17.1.1.8	The project changes should have been analyzed as part of the Management of Change program. It is necessary to ensure that any MOC recommendations or
17. Readiness 17. Overview 17. Commentary 17.1.1 Program 17.1.2 Team		
Ready		

FEEDBACK

Included in the package that you downloaded is a survey form: **Operational-Excellence-Feedback.docx**. Please complete it and return it to the following address:

info@stb07.com

Thank you for participating in the evaluation of this test package.