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413 Pages with 962 +/- Norms / speeds

Brownfields Engineering



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Offshore Oil & Gas Engineering, Brownfields Engineering

413 pages with +/-962.00 Total Norms in this Book

The aim of this Manual/Book is Consistency for Offshore Engineering Brownfields Projects, ranging from 10,000.00 Man-Hours to 100,000.00 Man-Hours. By applying the same norms /speeds and time standards for each brownfield project we can accurately measure our results every time.

Offshore engineering Brownfields

\$ 600.00

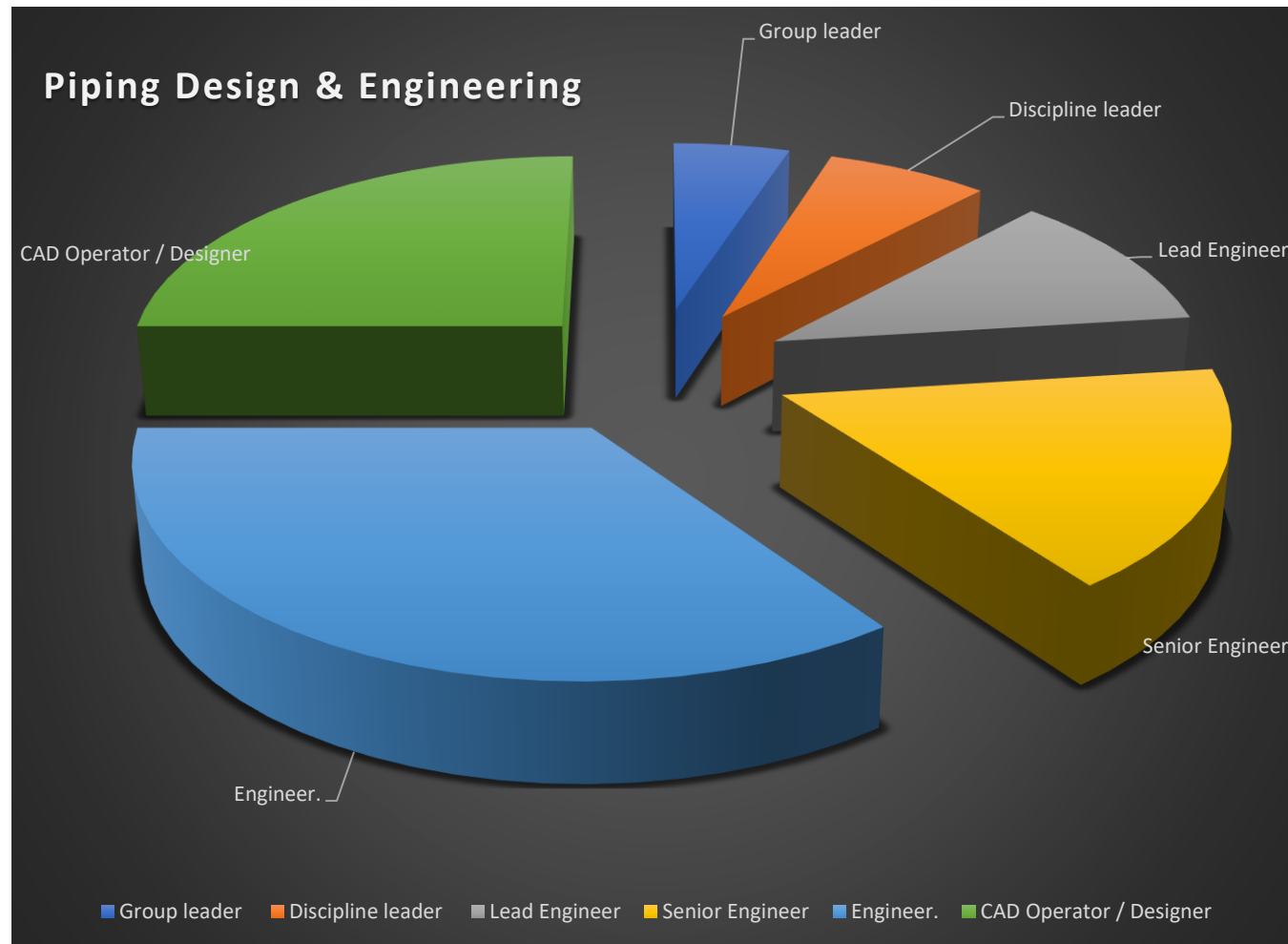
The book/manual will bring consistency by applying the same norms/speeds for the same item which will help in measuring performance accurately. With the project factor explained, users will also know what to look for when assessing results

The index is clear and highlights the relevant section of the Offshore engineering Brownfields

When you start the calculation of the BOM (Bill Of Materials)/BOQ (Bill Of Quantities), use a WBS (Work Breakdown Structure) to group the different man-hours section. This will provide you with the basic man-hours, and once the project factor is applied, you will obtain the project productive man-hours for each WBS Groups. Plus the **Risk Matrix** to increase Productive man-hours.



The average manpower percentage breakdown that you should be aiming for in the Piping Engineering manpower for your project.



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Project manager man-hour are based on the total Engineering man-hours	
Project Control manager and his team man-hour are based on the total Engineering man-hours	
Procurement manager and his team man-hour are based on the total Engineering man-	
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Document control man-hour are based on the total Engineering man-hours	
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Piping Design & Engineering	
Mechanical Design & Engineering	
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Yellow highlighted deliverables are common deliverables across disciplines

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- 1,01 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,02 VISIT TO OFF-SHORE FACILITIES PER DAY PER PERSON
- 1,03 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THAN 5 ITEMS/ISSUES TO BE CHECKED
- 1,04 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS ON INPUT) AND/OR MORE THAN 5 ITEMS/ISSUES TO BE CHECKED.
- 1,05 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,06 VISIT TO ON-SHORE FACILITIES PER DAY PER PERSON
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- 1,09 RETRIEVAL OF DRAWINGS/DOCUMENTS FROM COMPANY ELECTRONIC ARCHIVE
- 1,10 RETRIEVAL OF DRAWINGS/DOCUMENTS FROM COMPANY NON-ELECTRONIC ARCHIVE OR DOCUMENTS/DRAWINGS SUBJECT TO OTHER PARALLEL RUNNING PROJECTS
- 1,11 ATTEND BFD MEETING AND GIVING REQUIRED TECHNICAL BACKUP FOR THE BFD. COMPLEXITY BASED ON A CLEAR PROJECT SCOPE AND NO EVALUATION OF TECHNICAL OPTIONS



Conceptual Design (FEED) Phase Structural Steel

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Description

- 2,01 FAMILIARIZATION WITH THE PROPOSED PROJECT SCOPE
- 2,02 REQUISITION OF LONG LEAD STRUCTURAL ITEMS TO BE ORDERED IN ADVANCE BY CONTRACTOR FOR PLANNING PURPOSES. INVOLVED STRUCTURAL ITEMS ARE SUCH AS LARGE PLATE, BEAMS AND TUBULAR BRIDGE BEARINGS.
- 2,03 PREPARATION OF A PRELIMINARY BULK INCLUDING SKETCHES AND THE MAN-HOUR ESTIMATE FOR THE LEVEL 3 ESTIMATE
- 2,04 ATTENDING HAZOP MEETING
- 2,05 REPORT OF FINDINGS FROM THE ENGINEERING AND DESIGN WORK CONDUCTED DURING CONCEPTUAL DESIGN
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- 2,08 INPUT TO SHE STUDIES AND CALCULATIONS
- 2,09 ATTENDING HAZOP MEETING /HAZID/TSA
- 2,10 SPECIFIC DESCRIPTION ON WORK TO BE EXECUTED. IF POSSIBLE STANDARD SPECIFICATION WILL BE USE AND OR MODIFIED, IF NO STANDARD IS AVAILABLE A NEW WILL BE MADE.
- 2,11 PREPARATION OF JACKET MODEL IN SACS/SESAM. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET AND LESS THEN FIVE APPURTENANCES
- 2,12 PREPARATION OF JACKET MODEL IN SACS/SESAM. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET WITHOUT APPURTENANCES OR THE MODIFICATION OF AN EXISTING MODEL WITH LESS THEN 4 APPURTENANCES.
- 2,13 PREPARATION OF JACKET MODEL IN SACS/SESAM. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET AND MORE THEN FIVE APPURTENANCES.
- 2,14 MODIFICATION OF EXISTING MODEL (LINEARIZATION OF PILES, ETC.) AND INPUT ENVIRONMENTAL DATA FOR FATIGUE CALCULATIONS. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET AND LESS THEN FIVE APPURTENANCES.
- 2,15 MODIFICATION OF EXISTING MODEL (LINEARIZATION OF PILES, ETC.) AND INPUT ENVIRONMENTAL DATA FOR FATIGUE CALCULATIONS. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET WITHOUT APPURTENANCES OR THE MODIFICATION OF AN EXISTING MODEL WITH LESS THEN 4 APPURTE



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- 2,23 RUN OF MODEL, ANALYZE OUTPUT AND MODIFICATIONS OF DESIGN UP TO STRUCTURAL PERMITTED DESIGN.
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- 2,25 CALCULATIONS TO ADDRESS UNCERTAINTIES IN DESIGN SOLUTIONS. SCOPE AND COMPLEXITY TO BE JUDGED ON A CASE-BY-CASE BASIS.
- 2,26 SKETCHES OF JOINTS, NODES AND CONNECTIONS.
- 2,27 EXISTING PLAN DRAWING OF JACKET DESIGN OR APPURTENANCE MODIFIED TO SHOW NEW STRUCTURE
- 2,28 EXISTING ROW DRAWING OF JACKET DESIGN OR APPURTENANCE MODIFIED TO SHOW NEW STRUCTURE
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- 2,34 PREPARATION OF TOPSIDES MODEL IN SACS. THE COMPLEXITY OF THE MODEL IS BASED ON A PARTLY THREE DIMENSIONAL "WELLHEAD" PLATFORM MODEL OR A PARTLY TWO-DIMENSIONAL MODEL OF A "PRODUCTION" PLATFORM OR MODIFICATIONS TO AN EXISTING MODEL.
- 2,35 PREPARATION OF TOPSIDES MODEL IN SACS. THE COMPLEXITY OF THE MODEL IS BASED ON A FULL MODEL FOR A "PRODUCTION" PLATFORM.
- 2,36 IMPORT WEIGHT DATA IN SACS/STAAD MODEL, WEIGHT DATA IS BASED ON SIMS WEIGHT CALCULATION.
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- 2,38 FULL NEW MODEL
- 2,39 RUN OF MODEL, ANALYZE OUTPUT AND MODIFICATIONS OF DESIGN UP TO STRUCTURAL PERMITTED DESIGN.
- 2,40 CHECK IF PROPOSED NODE DESIGN IS NOT OVERSTRESSED.
- 2,41 HAND CALCULATION OF ONE BEAM
- 2,42 CALCULATIONS TO ADDRESS UNCERTAINTIES IN DESIGN SOLUTIONS. SCOPE AND COMPLEXITY TO BE JUDGED ON A CASE-BY-CASE BASIS
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- 2,54 ENGINEERING & DESIGN OF NEW ACCESS PLATFORM.
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- 3,02 DETERMINE PROJECT SCOPE AS INDICATED IN THE VARIOUS DOCUMENTS
- 3,03 COLLECTING INFORMATION REQUIRED BY WORK PREPARATOR INCLUDING DOCUMENT REGISTER
- 3,04 REPORT INDICATING THE CHANGES IN WEIGHTING AND CENTER OF GRAVITY DUE TO MODIFIED STRUCTURE DESIGN.
- 3,05 INPUT TO SHE STUDIES AND CALCULATIONS
- 3,06 ATTENDING HAZOP MEETING
- 3,07 SPECIFIC DESCRIPTION ON WORK TO BE EXECUTED. IF POSSIBLE STANDARD SPECIFICATION WILL BE USE AND OR MODIFIED, IF NO STANDARD IS AVAILABLE A NEW WILL BE MADE
- 3,08 PREPARATION OF JACKET MODEL IN SACS/SESAM. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET AND LESS THEN FIVE APPURTENANCES
- 3,09 PREPARATION OF JACKET MODEL IN SACS/SESAM. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET WITHOUT APPURTENANCES OR THE MODIFICATION OF AN EXISTING MODEL WITH LESS THEN 4 APPURTENANCES.
- 3,10 PREPARATION OF JACKET MODEL IN SACS/SESAM. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET AND MORE THEN FIVE APPURTENANCES.
- 3,11 MODIFICATION OF EXISTING MODEL (LINEARIZATION OF PILES, ETC.) AND INPUT ENVIRONMENTAL DATA FOR FATIGUE CALCULATIONS. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET AND LESS THEN FIVE APPURTENANCES.
- 3,12 MODIFICATION OF EXISTING MODEL (LINEARIZATION OF PILES, ETC.) AND INPUT ENVIRONMENTAL DATA FOR FATIGUE CALCULATIONS. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET WITHOUT APPURTENANCES OR THE MODIFICATION OF AN EXISTING MODEL WITH LESS THEN 4 APPURTE
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Description

- 3,16 MODIFICATION OF EXISTING MODEL AND INPUT ENVIRONMENTAL DATA FOR NATURAL FREQUENCY CALCULATIONS. THE COMPLEXITY OF THE MODEL IS BASED ON THE JACKET AND MORE THEN FIVE APPURTENANCES.
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- 3,34 IMPORT WEIGHT DATA IN SACS/STAAD MODEL, WEIGHT DATA IS BASED ON SIMS WEIGHT CALCULATION.
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- 3,37 RUN OF MODEL, ANALYZE OUTPUT AND MODIFICATIONS OF DESIGN UP TO STRUCTURAL PERMITTED DESIGN.

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- 3,38 CHECK IF PROPOSED NODE DESIGN IS NOT OVERSTRESSED
- 3,39 HAND CALCULATION OF ONE BEAM
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- 3,41 STRESS CALCULATION AND CHECK OF SLINGS AND MODULE OF THE TO BE LIFTED ITEM, COMPLEXITY BASED ON FOUR POINT LIFT
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Yellow highlighted deliverables are common deliverables across disciplines

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- 1,06 VISIT TO ON-SHORE FACILITIES PER DAY PER PERSON
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- 1,09 RETRIEVAL OF DRAWINGS FROM COMPANY ELECTRONIC ARCHIVE.
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- 1,11 10-50DOCUMENTS
- 1,12 10 DOCUMENTS
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- 2,04 INPUT TO OR PARTICIPATION IN : HAZOP,HAZID, ETC. SAFETY REVIEW
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- 2,06 REPORT OF FINDINGS FROM THE ENGINEERING AND DESIGN WORK CONDUCTED DURING CONCEPTUAL DESIGN
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- 2,22 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
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2,39 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)

Conceptual Design (FEED) Phase Mechanical & Equipment

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2,50 SINGLE SOURCE

2,51 4 VENDORS

2,52 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

2,53 SINGLE SOURCE

2,54 4 VENDORS

2,55 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

2,56 SINGLE SOURCE

2,57 4 VENDORS

2,58 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

2,59 SINGLE SOURCE

2,60 4 VENDORS



2,61 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

Conceptual Design (FEED) Phase Mechanical & Equipment

Description

2,62 SINGLE SOURCE

2,63 4 VENDORS

2,64 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

2,65 SINGLE SOURCE

2,66 4 VENDORS

2,67 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

2,68 SINGLE SOURCE

2,69 4 VENDORS

2,70 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

2,71 SINGLE SOURCE

2,72 4 VENDORS

2,73 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

2,74 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

2,75 PED ACTIVITIES FOR LONG LEAD ITEMS IF SCHEDULE REQUIRES



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Detailed Design Phase Mechanical & Equipment

Description

- 3,01 (INPUT TO) FINALIZE GENERAL ARRANGEMENT AND/OR SECTION DRAWING OF NEW EQUIPMENT BASED ON FINAL VENDOR DATA
- 3,02 INPUT TO OR PARTICIPATION IN : HAZOP,HAZID, ETC. SAFETY REVIEW
- 3,03 ATTENDING DESIGN REVIEW MEETINGS
- 3,04 DETERMINE PROJECT SCOPE AS INDICATED IN THE VARIOUS DOCUMENTS
- 3,05 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,06 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,06 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,07 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,08 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,09 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,10 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,11 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,12 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,13 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,14 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,15 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE



- 3,16 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

Detailed Design Phase Mechanical & Equipment

Description

- 3,17 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,18 LISTING TECHNICAL PARAMETERS REQUIRED FOR PURCHASING OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,19 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,20 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,21 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,22 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,23 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,24 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,25 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,26 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,27 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,28 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,29 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,30 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,31 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)



- 3,32 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)

Detailed Design Phase Mechanical & Equipment

Description

- 3,33 TECHNICAL REQUISITION FOR PURCHASING AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE (INCLUDING DWG UPDATE TO NEXT REV.)
- 3,34 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,35 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,36 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,37 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,38 SINGLE SOURCE
- 3,39 4 VENDORS
- 3,40 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,41 SINGLE SOURCE
- 3,42 4 VENDORS
- 3,43 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,44 SINGLE SOURCE
- 3,45 4 VENDORS
- 3,46 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,47 SINGLE SOURCE
- 3,48 4 VENDORS
- 3,49 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE
- 3,50 SINGLE SOURCE
- 3,51 4 VENDORS



3,52 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

3,53 SINGLE SOURCE

3,54 4 VENDORS

Detailed Design Phase Mechanical & Equipment

Description

3,55 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

3,56 SINGLE SOURCE

3,57 4 VENDORS

3,58 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

3,59 SINGLE SOURCE

3,60 4 VENDORS

3,61 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

3,62 SINGLE SOURCE

3,63 4 VENDORS

3,64 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

3,65 BID EVALUATION REQUIRED FOR TO BE PURCHASED ITEMS AND/OR INPUT FOR BUDGET QUOTES FOR THE LEVEL 3 ESTIMATE

3,66 (INPUT TO) DETAIL DRAWING OF NOZZLE(S)

3,67 INPUT OF MECHANICAL EQUIPMENT IN PDMS MODEL

3,68 INPUT TO PRE-COMMISSIONING AND COMMISSIONING PROCEDURES FOR SPECIAL EQUIPMENT

3,69 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,70 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,71 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,72 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,73 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,74 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,75 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,76 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,77 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

3,78 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS



- 3,79 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS
- 3,80 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS
- 3,81 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS

Detailed Design Phase Mechanical & Equipment

Description

- 3,82 CHECK OF VENDOR DOC.S WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS
- 3,83 VENDOR VISIT TO WITNESS FAT / OR OTHER REQUIRED VENDOR VISITS
- 3,84 SUMMARY OF EQUIPMENT WEIGHTS (GATHERING VENDOR DATA AND/ OR CALCULATION OF EQUIPMENT WEIGHT)
- 3,85 INPUT TO WORK PREPARATOR OF PROJECT CONSTRUCTION SCOPE
- 3,86 TEST AND INSPECTION PLAN PER CATEGORY / MATERIAL
- 3,87 INTRODUCTION LETTER TO NOTIFIED BODY
- 3,88 APPLICATION FORM PER CATEGORY II & III TO NOTIFIED BODY
- 3,89 DECLARATION OF CONFORMITY PER PIPING CATEGORY I, II & III
- 3,90 DECLARATION OF CONFORMITY FOR THE PRESSURE SYSTEM ON BEHALF OF CLIENT
- 3,91 INSTRUCTIONS FOR INSTALLATION / OPERATION / MAINTENANCE OF PIPING SYSTEMS
- 3,92 INSTRUCTIONS FOR OPERATION / MAINTENANCE OF PRESSURE SYSTEMS
- 3,93 HAZARD ANALYSIS IN ORDER TO IDENTIFY THOSE WHICH APPLY ON ACCOUNT OF PRESSURE
- 3,94 COMPILE PACKAGE FOR NEW CATEGORY II & III PIPING FOR NoBo
- 3,95 COMPILE PACKAGE FOR COMPLETE PRESSURE SYSTEMS FOR "KVI"
- 3,96 COMPILE PACKAGE FOR MODIFICATIONS TO EXISTING PIPING AND EQUIPMENT FOR NoBo
- 3,97 COMPILE MANUFACTURERS DATA BOOKS
- 3,98 COMMISSIONING SUPPORT BY ENGINEERING ON SITE



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Discipline - Piping

All Phases Piping

Description

- 1,01 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,02 VISIT TO OFF-SHORE FACILITIES PER DAY PER PERSON
- 1,03 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,04 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS ON INPUT) AND/OR MORE THEN 5 ITEMS/ISSUES TO BE CHECKED.
- 1,05 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,06 VISIT TO ON-SHORE FACILITIES PER DAY PER PERSON
- 1,07 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,08 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS ON INPUT) AND/OR MORE THEN 5 ITEMS/ISSUES TO BE CHECKED.
- 1,09 RETRIEVAL OF DRAWINGS/DOCUMENTS FROM COMPANY ELECTRONIC ARCHIVE
- 1,10 RETRIEVAL OF DRAWINGS/DOCUMENTS FROM COMPANY NON-ELECTRONIC ARCHIVE OR DOCUMENTS/DRAWINGS SUBJECT TO OTHER PARALLEL RUNNING PROJECTS
- 1,11 ATTEND BFD MEETING AND GIVING REQUIRED TECHNICAL BACKUP FOR THE BFD. COMPLEXITY BASED ON A CLEAR PROJECT SCOPE AND NO EVALUATION OF TECHNICAL OPTIONS.



Conceptual Design (FEED) Phase Detail Index Structural Steel

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Discipline - Piping

Conceptual Design (FEED) Phase Piping

Description

- 2,01 FAMILIARIZATION WITH THE PROPOSED PROJECT SCOPE
- 2,02 UPDATING P&ID'S TO EXISTING FACILITIES, P&ID COMPLEXITY SET AT CONTAINING BETWEEN 8 TO 12 LINES PER P&ID SHEET.
- 2,03 UPDATING P&ID'S TO EXISTING FACILITIES, P&ID COMPLEXITY SET AT CONTAINING LESS THEN 8 LINES PER P&ID SHEET.
- 2,04 UPDATING P&ID'S TO EXISTING FACILITIES, P&ID COMPLEXITY SET AT CONTAINING MORE THEN 12 LINES PER P&ID SHEET
- 2,05 COMPLETING OF LINE LIST WITH PIPING DATA
- 2,06 NEW G.A. AND/OR SECTION DRAWING WITH EQUIPMENT, STRUCTURES AND/OR LINES.
- 2,07 MODIFICATION G.A. WITH ADDITIONAL EQUIPMENT, STRUCTURES AND/OR LINES
- 2,08 MODIFICATION PLOT PLAN WITH ADDITIONAL EQUIPMENT AND/OR STRUCTURES
- 2,09 STUDY OF PROPOSED ROUTING OF LINE WITH COMPLEXITY : LINE CONTAINING BETWEEN 3 AND 5 ELBOWS AND TEES
- 2,10 STUDY OF PROPOSED ROUTING OF LINE WITH COMPLEXITY : LINE CONTAINING LESS THEN 3 ELBOWS AND TEES
- 2,11 STUDY OF PROPOSED ROUTING OF LINE WITH COMPLEXITY : LINE CONTAINING MORE THEN 5 ELBOWS AND TEES
- 2,12 PREPARATION OF A PRELIMINARY BULK INCLUDING INSULATION, TRACING REQUIREMENTS AND THE ENGINEERING MAN-HOUR ESTIMATE
- 2,13 INPUT TO OR PARTICIPATION IN : HAZOP,HAZID, ETC. SAFETY REVIEW
- 2,14 ATTENDING DESIGN REVIEW MEETINGS
- 2,15 STUDIES AND REPORTS DURING CONCEPTUAL DESIGN
- 2,16 REPORT OF FINDINGS FROM THE ENGINEERING AND DESIGN WORK CONDUCTED DURING CONCEPTUAL DESIGN
- 2,17 INPUT TO OR PARTICIPATION IN : HAZOP,HAZID, ETC. SAFETY REVIEW



2,18 ATTENDING DESIGN REVIEW MEETINGS

2,19 DETERMINE PROJECT SCOPE AS INDICATED IN THE VARIOUS DOCUMENTS

Discipline - Piping

Conceptual Design (FEED) Phase Piping

Description

2,20 INDICATION ON P&ID WHERE BLIND FLANGES AND OTHER MODIFICATIONS FOR HYDRO TESTING ARE REQUIRED

2,21 INDICATION OF REQUIRED FIRE FIGHT FUNCTIONALITY (SPRINKLER LAYOUT MONITORS I.E.)

2,22 PREPARATION OF ISO USED FOR INPUT FOR STRESS MODEL, ISO WITH COMPLEXITY OF BETWEEN 3 AND 5 ELBOWS AND TEES

2,23 PREPARATION OF ISO USED FOR INPUT FOR STRESS MODEL, ISO WITH COMPLEXITY OF LESS THEN 3 ELBOWS AND TEES

2,24 PREPARATION OF ISO USED FOR INPUT FOR STRESS MODEL, ISO WITH COMPLEXITY OF MORE THEN 5 ELBOWS AND TEES

2,25 STATIC ANALYSIS OF ISO WHERE STRESS ANALYSIS IS REQUIRED, SCOPE INCLUDES BUILDING THE MODEL IN SIMULATION PACKAGE, RUNNING SIMULATION UP TO FINALIZING STRESS PERMITTED ROUTING INCL. A REPORT FOR AUTHORITIES (ISO COMPLEXITY OF BETWEEN 3 AND 5 ELBOWS AND TEES)



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Detailed Design Phase Piping

Detailed Design Phase Piping

Description

- 3,01 STATIC ANALYSIS OF ISO WHERE STRESS ANALYSIS IS REQUIRED, SCOPE INCLUDES BUILDING THE MODEL IN SIMULATION PACKAGE, RUNNING SIMULATION UP TO FINALIZING STRESS PERMITTED ROUTING INCL. A REPORT FOR AUTHORITIES (ISOCOMPLEXITY OF LESS THEN 3 ELBOWS AND TEES)
- 3,02 STATIC ANALYSIS OF ISO WHERE STRESS ANALYSIS IS REQUIRED, SCOPE INCLUDES BUILDING THE MODEL IN SIMULATION PACKAGE, RUNNING SIMULATION UP TO FINALIZING STRESS PERMITTED ROUTING INCL. A REPORT FOR AUTHORITIES (ISO COMPLEXITY OF MORE THEN 5 ELBOWS AND TEES)
- 3,03 DYNAMIC ANALYSIS OF ISO WHERE STRESS ANALYSIS IS REQUIRED, SCOPE INCLUDES BUILDING THE MODEL IN SIMULATION PACKAGE, RUNNING SIMULATION UP TO FINALIZING STRESS PERMITTED ROUTING INCL. A REPORT FOR AUTHORITIES.
- 3,04 TAGGING LIST FOR ALL PURCHASED VALVES INCLUDING BASIC TECHNICAL DATA
- 3,05 LIST INDICATING REQUIRED TIE-INS AND TECHNICAL SPECIFICATIONS SUCH AS SIZE, RATING, LOCATION, ETC.
- 3,06 INPUT BY ENGINEERING TO WORK PREPARATION FOR SEPARATE TIE-IN SCOPE.
- 3,07 G.A. DRAWING WHERE DEMOLITION SCOPE IS INDICATED BY MARKING UP OF EXISTING DRAWINGS. DRAWING INCLUDES MINOR MODIFICATION TO REMAINING PIPING WHERE THE DEMOLITION SCOPE STARTS.
- 3,08 ISO WHERE DEMOLITION SCOPE IS INDICATED BY MARKING UP OF EXISTING DRAWINGS. DRAWING INCLUDES MINOR MODIFICATION TO REMAINING PIPING WHERE THE DEMOLITION SCOPE STARTS.
- 3,09 PREPARATION, NOT USING PDMS, OF ISO WITH COMPLEXITY : BETWEEN 3 AND 5 ADDITIONAL FITTINGS/FLANGES/VALVES
- 3,10 PREPARATION, USING PDMS, OF ISO WITH COMPLEXITY : BETWEEN 3 AND 5 ADDITIONAL FITTINGS/FLANGES/VALVES
- 3,11 MODIFICATION OF ISO WITH COMPLEXITY : BETWEEN 3 AND 5 ADDITIONAL FITTINGS/FLANGES/VALVES
- 3,12 CALCULATION OF PIPING WEIGHT
- 3,13 SELECTING STANDARD PIPE SUPPORTS FOR REQUIRED PIPE SUPPORT FOR PIPE LINES. STANDARD PIPE SUPPORTS ARE PIPE SUPPORTS AVAILABLE FROM CATALOGUES.
- 3,14 MARKED UP DRAWING OF MINOR MODIFICATION TO EXISTING SUPPORT
- 3,15 ENGINEERING & DESIGN OF SPECIAL SUPPORTING, NOT AVAILABLE FROM CATALOGUE.



- 3,16 PREPARATION OF BULK SUMMARY BY HAND FROM ISO AND INPUTTING BULK SUMMARY IN THE SAP SYSTEM.

Detailed Design Phase Piping

Detailed Design Phase Piping

- 3,17 CHECK OF PIPING BULK SUMMARY OUTPUT FROM PDMS CATALOGUE AND INPUTTING BULK SUMMARY IN THE SAP SYSTEM
- 3,18 TECHNICAL SPECIFICATION FOR PURCHASING SPECIAL PIPING ITEMS
- 3,19 EVALUATION OF REQUISITIONED PIPING WITH QUOTES FROM VENDORS. EVALUATIONS FINDINGS LISTED IN AN BID COMPARISON DOCUMENT, REQUISITIONS MODIFIED FOR PURCHASE.
- 3,20 CHECK OF CONSTRUCTION DRAWINGS AND REPORTS FROM VENDOR WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS
- 3,21 TECHNICAL SPECIFICATION FOR PURCHASING SPECIAL SUPPORT ITEMS
- 3,22 EVALUATION OF REQUISITIONED SUPPORTING WITH QUOTES FROM VENDORS. EVALUATIONS FINDINGS LISTED IN AN BID COMPARISON DOCUMENT, REQUISITIONS MODIFIED FOR PURCHASE.
- 3,23 CHECK OF CONSTRUCTION DRAWINGS AND REPORTS FROM VENDOR WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS
- 3,24 CHECK OF CONSTRUCTION AT VENDOR'S LOCATION WITH ORIGINAL REQUISITIONED TECHNICAL REQUIREMENTS
- 3,25 INPUT BY ENGINEERING TO WORK PREPARATION FOR CONSTRUCTION SCOPE.



Electrical Brownfields Engineering

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All Phase Electrical

Yellow highlighted deliverables are common deliverables across disciplines

Description

- 1,01 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,02 VISIT TO OFF-SHORE FACILITIES PER DAY PER PERSON
- 1,03 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,04 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS ON INPUT) AND/OR MORE THEN 5 ITEMS/ISSUES TO BE CHECKED.
- 1,05 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,06 VISIT TO ON-SHORE FACILITIES PER DAY PER PERSON
- 1,07 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,08 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS ON INPUT) AND/OR MORE THEN 5 ITEMS/ISSUES TO BE CHECKED.
- 1,09 RETRIEVAL OF DRAWINGS FROM COMPANY ELECTRONIC ARCHIVE
- 1,10 RETRIEVAL OF DRAWINGS/DOCUMENTS FROM COMPANY NON-ELECTRONIC ARCHIVE OR DOCUMENTS/DRAWINGS SUBJECT TO OTHER PARALLEL RUNNING PROJECTS
- 1,11 ATTEND BFD MEETING AND GIVING REQUIRED TECHNICAL BACKUP FOR THE BFD. COMPLEXITY BASED ON A CLEAR PROJECT SCOPE AND NO EVALUATION OF TECHNICAL OPTIONS.



Conceptual Design (FEED) Phase Detail Index Structural Steel

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Conceptual Design (FEED) Phase Electrical

Description

- 2,01 FAMILIARIZATION WITH THE PROPOSED PROJECT SCOPE
- 2,02 PREPARATION OF A PRELIMINARY BULK INCLUDING INSULATION, TRACING REQUIREMENTS AND THE ENGINEERING MAN-HOUR ESTIMATE.
- 2,03 ATTENDING DESIGN REVIEW MEETINGS
- 2,04 REPORT OF FINDINGS FROM THE ENGINEERING AND DESIGN WORK CONDUCTED DURING CONCEPTUAL DESIGN
- 2,05 STUDIES AND REPORTS DURING CONCEPTUAL DESIGN
- 2,06 CALCULATION OF ONE CABLE SIZE (MM²) VIA CALCULATION PROGRAM, BASED ON PRELIMINARY DATA.
- 2,07 BASED ON PRELIMINARY DATA SUCH AS PEFS & LINELIST. NORM INCLUDES LISTING CALCULATION RESULTS ON LINE LIST. FINAL RESULT IS A CAPACITY CHECK ON EXISTING FACILITIES AND A INPUT FOR LEVEL 3 ESTIMATE.
- 2,08 CALCULATIONS SUCH AS SHORT CIRCUIT, LIGHTING, ETC. PER PROJECT TO BE ESTIMATED
- 2,09 WORK LIMITED TO DRAFTING THE DRAWING BASED ON MEMORANDUM RECEIVED FROM PROCESS.
- 2,10 TO BE ESTIMATED PER PROJECT
- 2,11 INCLUDING MEETING
- 2,12 DRAWING TO BE LISTED ON DRAWING REGISTER/LIST
- 2,13 IDENTIFYING THE PROPOSED USED POWER SYSTEMS INVOLVED IN THE PROJECT. POSSIBLE INPUT TO CAPACITY CHECK AND LEVEL 3 ESTIMATE.
- 2,14 IDENTIFYING EXTENSIONS TO EXISTING CABLE RACK LAYOUT. INPUT TO CAPACITY CHECK OF MAIN ROUTING. MODIFICATION TO BE ENGINEERED, DESIGNED AND DRAFT.
- 2,15 IDENTIFYING OF ELECTRICAL EQUIPMENT LAYOUT. CAPACITY CHECK OF SPACE. MODIFICATION TO BE ENGINEERED, DESIGNED AND DRAFT.
- 2,16 IDENTIFYING EXTENSIONS TO EXISTING ELECTRICAL EQUIPMENT LAYOUT. CAPACITY CHECK OF SPACE. MODIFICATION TO BE ENGINEERED, DESIGNED AND DRAFT.
- 2,17 UPDATE/ ADD 1 FEEDERS. RESERVE OF CIRCUITS ONLY
- 2,18 INDICATING THE FOR THE EXTENSION TO BE USED FEEDERS FROM EXISTING PANEL, FOR RESERVING PURPOSES.



Conceptual Design (FEED) Phase Electrical

Description

- 2,19 TO BE ENGINEERED, DESIGNED AND DRAFT. USE FOR DEFINING OF THE ELECTRICAL CONTENT OF THE JOB, AND ITS SPECIFIC SYSTEMS INVOLVED
- 2,20 PER CABLE. FOR MTO ONLY. SIZE, LENGTH, TYPE, FROM, TO
- 2,21 INDICATING THE EXTENSION OF THE EXISTING CONFIGURATION, TO BE DESIGNED AND DRAFT. ENGINEERING HOURS ONLY FOR SUPPORT AND NOT FOR SET-UP & CALCULATION OF CONFIGURATION. CALCULATION COVERED IN CALCULATIONS ESTIMATED.
- 2,22 INDICATION OF ADDITIONAL CONSUMERS ON A PROJECT SPECIFIC LIST. INPUT TO CAPACITY CHECK
- 2,23 SINGLE LINE DIAGRAM REQUIRED FOR PURCHASING LONG LEAD ITEM TO PURCHASED DURING CONCEPT DESIGN PHASE.
- 2,24 SWITCHBOARD SCHEDULE REQUIRED FOR PURCHASING LONG LEAD ITEM TO BE PURCHASED DURING CONCEPT DESIGN PHASE.
- 2,25 INPUT FOR ELECTRICAL PART IN A REQUISITION FOR AN OTHER DISCIPLINE
- 2,26 NORMALLY MAIN EQUIPMENT - FILL IN ELECTRICAL & EQUIPMENT DATA ON SHEET (FOR COMMENTS, ENQUIRY AND PURCHASE)
- 2,27 REVIEW AND ANALYZE THE ELECTRICAL PART AND PREPARE REPORT (OR INPUT), RESULTING IN A BID COMPARISON. EVALUATION IS LIMITED TO THREE VENDORS.
- 2,28 PREPARE REQUISITION WITH THE GENERAL REQUIREMENTS CONCLUDED FROM THE ELECTRICAL SPECIFICATION. INCLUDING SDRL, MATERIAL CRITICAL CALCULATION SHEET, TEST & INSPECTION REQUIREMENTS. (FOR COMMENTS, ENQUIRY AND PURCHASE) PREPARATION SPECIFICATION ONLY IF NOT SUITABLE TO DEP.
- 2,29 NORMALLY MAIN EQUIPMENT. PREPARE SPECIFICATION WITH THE REQUIRED TECHNICAL AND ELECTRICAL DATA AND REQUIREMENTS. (FOR COMMENTS, ENQUIRY, PURCHASE)



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Detailed Design Phase Electrical

Description

- 3,01 ATTENDING DESIGN REVIEW MEETINGS
- 3,02 CALCULATION OF CABLE SIZE (MM²) VIA CALCULATION PROGRAM, BASED ON THE FINAL DATA.
- 3,03 CALCULATION OF HEAT TRACING CIRCUIT BASED ON FINAL DATA. NORM INCLUDES LISTING CALCULATION RESULTS ON LINE LIST
- 3,04 CALCULATIONS SUCH AS SHORT CIRCUIT, LIGHTING, ETC. PER PROJECT TO BE ESTIMATED.
- 3,05 DETERMINE PROJECT SCOPE AS INDICATED IN THE VARIOUS DOCUMENTS
- 3,06 INPUT OF ELECTRICAL EQUIPMENT AND MATERIALS IN PDMS MODEL
- 3,07 FINALIZING THE IN-CONCEPT DESIGN MODIFIED DRAWING BASED ON FINALIZATION OF THE DETAILED DESIGN. WORK LIMITED TO DRAFTING THE DRAWING BASED ON INSTRUCTIONS RECEIVED FROM PROCESS.
- 3,08 TO BE ESTIMATED PER PROJECT
- 3,09 INCLUDING MEETING
- 3,10 INDICATING ALL DRAWINGS OF A WORK PACK
- 3,11 INDICATING THE EXTENSION OF THE EXISTING CONFIGURATION, TO BE DESIGNED AND DRAFT. ENGINEERING HOURS ONLY FOR SUPPORT AND NOT FOR SET-UP & CALCULATION OF CONFIGURATION. CALCULATION COVERED IN CALCULATIONS ESTIMATED.
- 3,12 FINALIZE IN CONCEPT DESIGN MODIFIED KEY ONE LINE DIAGRAM BASED ON FINALIZATION OF THE DESIGN
- 3,13 INDICATING THE TO BE DEMOLISHED POWER SYSTEMS INVOLVED IN THE PROJECT.
- 3,14 DRAWING IDENTIFYING THE REQUIRED EXTENSION OF THE CABLE TRAY SYSTEM. BASED ON PLOTPLAN DELIVERED BY OTHERS.
- 3,15 DRAWING IDENTIFYING THE REQUIRED EXTENSION OF THE CABLE TRAY SYSTEM.
- 3,16 INDICATING THE TO BE DEMOLISHED PART OF EXISTING CABLE RACK.
- 3,17 DRAWING IDENTIFYING THE REQUIRED EXTENSION OF EARTHING.
- 3,18 DRAWING IDENTIFYING THE REQUIRED EXTENSION OF EARTHING.



Detailed Design Phase Electrical

Description

- 3,19 INDICATING THE TO BE DEMOLISHED EARTHED EQUIPMENT.
- 3,20 IDENTIFYING OF ELECTRICAL EQUIPMENT LAYOUT. CAPACITY CHECK OF SPACE. MODIFICATION TO BE ENGINEERED, DESIGNED AND DRAFT.
- 3,21 FINALIZATION OF IN CONCEPT DESIGN MODIFIED LAYOUT BASED ON FINALIZATION OF DETAILED DESIGN
- 3,22 INDICATING THE TO BE DEMOLISHED ELECTRICAL EQUIPMENT.
- 3,23 LAYOUT DRAWING IDENTIFYING THE REQUIRED EXTENSION OF THE HEAT TRACING SYSTEM, THE DRAWING IS SHOWING THE MAIN BOXES AND SUB BOXES WITH INTERCONNECTING CABLE.
- 3,24 LAYOUT DRAWING IDENTIFYING THE REQUIRED EXTENSION OF THE HEAT TRACING SYSTEM, THE DRAWING IS SHOWING THE MAIN BOXES AND SUB BOXES WITH INTERCONNECTING CABLE.
- 3,25 INDICATING OF THE TO BE DEMOLISHED HEAT-TRACING MAIN/SUB BOX
- 3,26 DRAWING IDENTIFYING THE REQUIRED EXTENSION OF LIGHTING
- 3,27 DRAWING IDENTIFYING THE REQUIRED EXTENSION OF LIGHTING
- 3,28 INDICATING OF THE TO BE DEMOLISHED LIGHTING FIXTURES.
- 3,29 LAYOUT DRAWING INDICATING THE EXTENSION OF THE POWER AND CONTROL CABLES AND ITS CONSUMER.
- 3,30 LAYOUT DRAWING INDICATING THE EXTENSION OF THE POWER AND CONTROL CABLES AND ITS CONSUMER.
- 3,31 LAYOUT DRAWING INDICATING THE EXTENSION OF THE POWER AND CONTROL CABLES AND ITS CONSUMER.
- 3,32 THE DRAWING IS INDICATING ONE CONSUMER ONLY. SHOWING ON THE DRAWING IS THE SCHEMATIC AND (INTER)-CONNECTION OF THE CONSUMER.
- 3,33 INDICATING THE TO BE MODIFIED CONSUMER CONNECTION AND/OR SCHEMATIC PART
- 3,34 INDICATING THE TO BE DEMOLISHED CONSUMER CONNECTION
- 3,35 INDICATING HE NUMBER OF CIRCUITS AND ELECTRICAL DATA INVOLVED WITH THE CONNECTION OF THE ELECTRICAL SYSTEM
- 3,36 INDICATING THE MODIFICATION DUE TO THE CONNECTION OF EXTRA ELECTRICAL SYSTEM
- 3,37 INDICATING ACTIONS ON DISTRIBUTION BOARD AS A CONSEQUENCE OF THE TO BE DEMOLISHED ELECTRICAL CIRCUITS.



Detailed Design Phase Electrical

Description

- 3,38 INDICATION OF TO BE DEMOLISHED CIRCUIT / CONSUMER
- 3,39 INDICATING THE NUMBER OF CIRCUITS AND ELECTRICAL DATA OF A NEW SWITCH GEAR REQUIRED FOR PURCHASING.
- 3,40 DISTRIBUTION BOARD / LV SWGR SCHEDULE REQUIRED FOR PURCHASING
- 3,41 TO BE ENGINEERED, DESIGNED AND DRAFT. USE FOR DEFINING OF THE ELECTRICAL CONTENT OF THE JOB, AND ITS SPECIFIC SYSTEMS INVOLVED
- 3,42 FINALIZE IN CONCEPT DESIGN CREATED BLOK DIAGRAM WITH FINAL DATA
- 3,43 FINALIZE IN CONCEPT DESIGN CREATED CABLE SCHEDULE WITH ON FINAL DATA
- 3,44 INDICATION OF TO BE DEMOLISHED CABLES.
- 3,45 INDICATION OF ADDITIONAL CONSUMERS ON A PROJECT SPECIFIC LIST.
- 3,46 FINALIZATION OF THE IN THE CONCEPT DESIGN PREPARED PROJECT SPECIFIC LOAD LIST WITH FINAL DATA GENERATED DURING DETAILED DESIGN.
- 3,47 INDICATING THE TO BE DEMOLISHED HEAT TRACING CIRCUIT.
- 3,48 INDICATING THE CONNECTIONS TO THE NEW HEAT TRACING SYSTEM
- 3,49 INDICATING THE MODIFICATION DUE TO THE CONNECTION OF EXTRA HEAT TRACING SYSTEM
- 3,50 INDICATING THE TO BE DEMOLISHED ELECTRICAL HEAT-TRACING ON THE HEAT-TRACING CONNECTION DIAGRAM
- 3,51 INDICATING THE ELECTRICAL HEAT-TRACING ON THE APPLICABLE ISO
- 3,52 INDICATING THE TO BE MODIFIED ELECTRICAL HEAT-TRACING ON THE APPLICABLE ISO
- 3,53 INDICATING THE TO BE DEMOLISHED ELECTRICAL HEAT-TRACING ON THE APPLICABLE ISO
- 3,54 DRAWING INDICATING CABLE TERMINATIONS.
- 3,55 DRAWING INDICATING MODIFICATION OF CABLE TERMINATIONS.
- 3,56 TO BE ESTIMATED PER PROJECT
- 3,57 TO BE ESTIMATED PER PROJECT
DETAILS, DRAWING AVAILABLE FROM STANDARD DRAWING CATALOGUE.
- 3,59 DRAWING INDICATING CONSTRUCTION INSTALLATION DETAILS, DRAWING TO BE PREPARED SPECIAL FOR THE PROJECT NOT AVAILABLE IN CATALOGUE.



Detailed Design Phase Electrical

Description

- 3,60 NAMEPLATE INDICATING TAG NUMBER, STANDARD NAME PLATE SHEETS TO BE USED.
- 3,61 INDICATING THE NUMBER OF CIRCUITS AND ELECTRICAL DATA OF A NEW DISTRIBUTION BOARD REQUIRED FOR PURCHASING.
- 3,62 FROM SAP. ACTIONS INCLUDES INPUT TO SAP AS WELL. MINIMUM OF 4 HOURS PER JOB AND 0.5 HOURS PER ITEM. BULK MATERIALS: LV CABLES, LIGHTING FIXTURES , POLES, HEAT TRACING MATERIALS, EARTHING MATERIALS., ETC.
- 3,63 INPUT FOR ELECTRICAL PART IN A REQUISITION / SPECIFICATION FOR ANOTHER DISCIPLINE
- 3,64 FILL IN ELECTRICAL & EQUIPMENT DATA REQUIRED FOR PROCUREMENT OF MATERIAL AND/OR EQUIPMENT.
- 3,65 PREPARE REQUISITION WITH THE GENERAL REQUIREMENTS CONCLUDED FROM THE ELECTRICAL SPECIFICATION. INCLUDING SDRL, MATERIAL CRITICAL CALCULATION SHEET, TEST & INSPECTION REQUIREMENTS. (NORM COVERS UPDATING THE REQUISITION IF AND WHEN REQUIRED ON THE ISSUES FOR COMMENTS, ENQUIRY AND PURCHASE)
- 3,66 PREPARE REQUISITION WITH THE GENERAL REQUIREMENTS CONCLUDED FROM THE ELECTRICAL SPECIFICATION. INCLUDING SDRL, MATERIAL CRITICAL CALCULATION SHEET, TEST & INSPECTION REQUIREMENTS. (NORM COVERS UPDATING THE REQUISITION IF AND WHEN REQUIRED ON THE ISSUES FOR COMMENTS, ENQUIRY AND PURCHASE)
- 3,67 PREPARE SPECIFICATION WITH THE REQUIRED TECHNICAL AND ELECTRICAL DATA AND REQUIREMENTS AND FAT/INSPECTION/COMMISSIONING PROCEDURES. (NORM COVERS UPDATING THE SPECIFICATION IF AND WHEN REQUIRED ON THE ISSUES FOR COMMENTS, ENQUIRY AND PURCHASE). PREPARATION SPECIFICATION ONLY IF NOT SUITABLE TO DEP.
- 3,68 REVIEW AND ANALYZE THE ELECTRICAL PART AND PREPARE REPORT (OR INPUT), RESULTING IN A BID COMPARISON. EVALUATION IS LIMITED TO THREE VENDORS.
- 3,69 REVIEW VENDOR DOCUMENTS (NORM INCLUDES ALL REVIEWS UP TO RFC)
- 3,70 TECHNICAL DISCUSSIONS WITH VENDORS (DESIGN AND CONSTRUCTION PHASE)
- 3,71 PREPARATION WORK INSTRUCTION FOR SUB CONTRACTOR FOR OFFSHORE WORK
- 3,72 INSPECTION AND TESTING OF EQUIPMENT
- 3,73 SPECIFICATION OF TESTING AND INSPECTION SCOPE, INPUT TO WORK PACK
- 3,74 DESCRIBING THE SCOPE INVOLVED WITH THE PROJECT, SUPPORTED BY DRAWINGS AND REPORTS CREATED FOR THE PROJECT.



Detailed Design Phase

Electrical

Description

- 3,75 DESCRIBING THE ELECTRICAL SCOPE PART OF ANOTHER DISCIPLINE WORK PACK. ELECTRICAL INPUT SUPPORTED BY DRAWINGS AND REPORTS CREATED FOR THE PROJECT.
- 3,76 INPUT TO STRUCTURAL DEPARTMENT CONCERNING THE WEIGHT OF ELECTRICAL EQUIPMENT. ONLY APPLICABLE FOR LARGE HEAVY WEIGHTING EQUIPMENT.
- 3,77 VISIT TO OR BY VENDOR TO DISCUSS EQUIPMENT MATTERS. (NO INSPECTION/TEST OF EQUIPMENT)



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All Phase Instrumentation

Yellow highlighted deliverables are common deliverables across disciplines

Description

- 1,01 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK
- 1,02 VISIT TO OFF-SHORE FACILITIES PER DAY PER PERSON
- 1,03 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,04 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS OWN INPUT) AND/OR MORE THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,05 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,06 VISIT TO ON-SHORE FACILITIES PER DAY PER PERSON
- 1,07 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,08 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS ON INPUT) AND/OR MORE THEN 5 ITEMS/ISSUES TO BE CHECKED.
- 1,09 RETRIEVAL OF DRAWINGS FROM COMPANY ELECTRONIC ARCHIVE
- 1,10 RETRIEVAL OF DRAWINGS/DOCUMENTS FROM COMPANY NON-ELECTRONIC ARCHIVE OR DOCUMENTS/DRAWINGS SUBJECT TO OTHER PARALLEL RUNNING PROJECTS
- 1,11 ATTEND BFD MEETING AND GIVING REQUIRED TECHNICAL BACKUP FOR THE BFD. COMPLEXITY BASED ON A CLEAR PROJECT SCOPE AND NO EVALUATION OF TECHNICAL OPTIONS.



Conceptual Design (FEED) Phase Detail Index Structural Steel

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Conceptual Design (FEED) Phase Instrumentation

Description

- 2,01 FAMILIARIZATION WITH THE PROPOSED PROJECT SCOPE. PROJECT < MNOK 400.000
- 2,02 FAMILIARIZATION WITH THE PROPOSED PROJECT SCOPE. PROJECT < MNOK 400.000
- 2,03 PREPARATION OF A PRELIMINARY BULK INCLUDING INSULATION, TRACING REQUIREMENTS AND THE ENGINEERING MAN-HOUR ESTIMATE. (INCLUDES INPUT TO PLANNING)
- 2,04 INPUT TO OR PARTICIPATION IN : HAZOP,HAZID, ETC. SAFETY REVIEW
- 2,05 ATTENDING DESIGN REVIEW MEETINGS
- 2,06 REPORT OF FINDINGS FROM THE ENGINEERING AND DESIGN WORK CONDUCTED DURING CONCEPTUAL DESIGN WITH SCOPE FOR DESCRIPTION FOR PHASE 5
- 2,07 LISTING OF TO BE INSTALLED INSTRUMENTS INDICATING : LOOP NUMBER, TAG NUMBER, P&ID NUMBER, SERVICE, COMPONENT, I/O TYPE, LOCATION OF THE INSTRUMENT, LINE SIZE, LINE NUMBER AND REQUISITION NUMBER STARTED IN PHASE 4, MAINTAINED AND COMPLETED IN PHASE 5
- 2,08 LISTING OF TO BE INSTALLED INSTRUMENTS GROUPED PER I/O TYPE INDICATING : TAG NUMBER, P&ID NUMBER AND SERVICE STARTED IN PHASE 4, MAINTAINED AND COMPLETED IN PHASE 5
- 2,09 DRAWING OF THE CONTROL AND AUXILIARY ROOM INDICATING THE FEASIBILITY OF REQUIRED EXTENSIONS AS WELL AS RESERVING THE AVAILABLE SPACE FOR THE EXTENSION.
- 2,10 DRAWING OF THE CABLE ROUTINGS INDICATING THE FEASIBILITY OF PROPOSED NEW CABLE ROUTINGS.
- 2,11 DOCUMENT INDICATING WHETHER OR NOT THE EXISTING INSTRUMENT AIR CAPACITY WILL BE SUFFICIENT FOR THE TO THE PROJECT RELATED INCREASED REQUIREMENTS.
- 2,12 DOCUMENT INDICATING WHETHER OR NOT THE EXISTING INSTRUMENT HYDRAULIC CAPACITY WILL BE SUFFICIENT FOR THE TO THE PROJECT RELATED INCREASED REQUIREMENTS.
- 2,13 DOCUMENT INDICATING WHETHER OR NOT THE EXISTING INSTRUMENT POWER CAPACITY WILL BE SUFFICIENT FOR THE TO THE PROJECT RELATED INCREASED REQUIREMENTS
- 2,14 DOCUMENT INDICATING WHETHER OR NOT THE EXISTING HVAC CAPACITY WILL BE SUFFICIENT FOR THE TO THE PROJECT RELATED INCREASED REQUIREMENTS
- 2,15 TECHNICAL SPECIFICATION FOR NEW OR FOR MODIFICATIONS ON EXISTING SYSTEMS < 100 NEW I/O POINTS



- 2,16 TECHNICAL SPECIFICATION FOR NEW OR FOR MODIFICATIONS ON EXISTING SYSTEMS > 100 NEW I/O POINTS

Conceptual Design (FEED) Phase Instrumentation

Description

- 2,17 TECHNICAL EVALUATION OF BID(S) FOR NEW OR FOR MODIFICATIONS ON EXISTING SYSTEMS < 100 NEW I/O POINTS
- 2,18 TECHNICAL EVALUATION OF BID(S) FOR NEW OR FOR MODIFICATIONS ON EXISTING SYSTEMS > 100 NEW I/O POINTS
- 2,19 TECHNICAL SPECIFICATION FOR PURCHASING ANALYZERS, HYDRAULIC PANELS AND OTHER COMPLEX DEVICES.
- 2,20 TECHNICAL EVALUATION OF BID(S) FOR ANALYZERS, HYDRAULIC PANELS ETC.
- 2,21 CALCULATION REQUIRED FOR DEFINING THE SPECIFICATION FOR THE CONTROL VALVE. THE CALCULATION RESULTS IN A DATASHEET FOR THE CONTROL VALVE
- 2,22 CALCULATION REQUIRED FOR DEFINING THE SPECIFICATION FOR THE CONTROL VALVE. THE CALCULATION RESULTS IN A DATASHEET FOR THE CONTROL VALVE
- 2,23 CALCULATION REQUIRED FOR DEFINING THE SPECIFICATION FOR THE RELIEVE VALVE. THE CALCULATION RESULTS IN A DATASHEET FOR THE RELIEVE VALVE
- 2,24 TECHNICAL SPECIFICATION FOR PURCHASING RELIEVE VALVES
- 2,25 STUDIES AND REPORTS DURING CONCEPTUAL DESIGN
- 2,26 PREPARE INSTRUMENT DATA SHEET AND POPULATE WITH THE RELEVANT DATA. SIMPLE INSTRUMENTS LIKE TRANSMITTERS ETC.
- 2,27 PREPARE INSTRUMENT DATA SHEET AND POPULATE WITH THE RELEVANT DATA.. COMPLEX INSTRUMENTS LIKE CONTROL VALVES ETC.



Detailed Design Phase Detail Index Structural Steel

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Detailed Design Phase Instrumentation

Description

- 3,01 ATTEND DESIGN REVIEW PER PERSON PER DAY
- 3,02 DETERMINE PROJECT SCOPE AS INDICATED IN THE VARIOUS DOCUMENTS
- 3,03 INPUT OF INSTRUMENTS IN PDMS MODEL
- 3,04 COLLECTING INFORMATION REQUIRED BY WORK PREPARATOR INCLUDING DOCUMENT REGISTER. EXTRACTING DATA LISTINGS FROM THE DATABASE FOR ATTACHMENT TO THE WORKPACK.
- 3,05 ATTEND AND PREPARE SAFETY MEETING PER PERSON PER DAY
- 3,06 DRAWING NEW CABLE TRAY LAYOUT
- 3,07 DRAWING INDICATING MODIFICATIONS TO ROUTING/SIZE/DETAILS OF CABLE TRAY
- 3,08 DRAWING INDICATING CABLE TRAY TO BE REMOVED
- 3,09 DOCUMENT SCHOLING THE ENTIRE ROUTING OF A CABLE THROUGH VARIOUS CABLE TRAYS.
- 3,10 LIST OF CABLES TO BE INSTALLED/CONNECTED/DEMOLISHED.
- 3,11 LISTING OF TO BE INSTALLED INSTRUMENTS INDICATING : LOOP NUMBER, TAG NUMBER, P&ID NUMBER, SERVICE, COMPONENT, I/O TYPE, LOCATION OF THE INSTRUMENT, LINE SIZE, LINE NUMBER AND REQUISITION NUMBER STARTED IN PHASE 4, MAINTAINED AND COMPLETED IN PHASE 5
- 3,12 LISTING OF TO BE INSTALLED INSTRUMENTS GROUPED PER I/O TYPE INDICATING : TAG NUMBER, P&ID NUMBER AND SERVICE STARTED IN PHASE 4, MAINTAINED AND COMPLETED IN PHASE 5
- 3,13 TECHNICAL SPECIFICATION FOR NEW OR FOR MODIFICATIONS ON EXISTING SYSTEMS < 100 NEW I/O POINTS
- 3,14 TECHNICAL SPECIFICATION FOR NEW OR FOR MODIFICATIONS ON EXISTING SYSTEMS > 100 NEW I/O POINTS
- 3,15 TECHNICAL EVALUATION OF BID(S) FOR NEW OR FOR MODIFICATIONS ON EXISTING SYSTEMS < 100 NEW I/O POINTS
- 3,16 TECHNICAL EVALUATION OF BID(S) FOR NEW OR FOR MODIFICATIONS ON EXISTING SYSTEMS > 100 NEW I/O POINTS
- 3,17 TECHNICAL SPECIFICATION FOR PURCHASING ANALYZERS, HYDRAULIC PANELS AND OTHER COMPLEX DEVICES.



- 3,18 TECHNICAL EVALUATION OF BID(S) FOR ANALYZERS, HYDRAULIC PANELS ETC.
- 3,19 CALCULATION REQUIRED FOR DEFINING THE SPECIFICATION FOR THE CONTROL VALVE. THE CALCULATION RESULTS IN A DATASHEET FOR THE CONTROL VALVE

Detailed Design Phase Instrumentation

Description

- 3,20 CALCULATION REQUIRED FOR DEFINING THE SPECIFICATION FOR THE CONTROL VALVE. THE CALCULATION RESULTS IN A DATASHEET FOR THE CONTROL VALVE
- 3,21 CALCULATION REQUIRED FOR DEFINING THE SPECIFICATION FOR THE RELIEVE VALVE. THE CALCULATION RESULTS IN A DATASHEET FOR THE RELIEVE VALVE
- 3,22 TECHNICAL SPECIFICATION FOR PURCHASING RELIEVE VALVES
- 3,23 PRODUCE A LIST OF MATERIALS AND QUANTITIES.
- 3,24 INSTALLATION DETAILS LIKE INSTRUMENT STAND ETC.
- 3,25 PRODUCE ALARM & TRIP SETTING LIST FOR NEW/MODIFIED INSTRUMENTS.
- 3,26 DETAILS HOW TO MOUNT AND CONNECT INSTRUMENT, INC. MATERIALS
- 3,27 DETAILS HOW TO CONNECT INSTRUMENT, INC. MATERIALS
- 3,28 LIST SHOWING CONSTRUCTION, SIZE, TEXT OF TAG PLATES QUANTITIES IN BLOCKS OF 20 TAGS
- 3,29 DRAWING INDICATING HOW CABLES ARE TO BE CABLED/CONNECTED
- 3,30 MODIFY EXISTING CABLE BLOCK DIAGRAM
- 3,31 DRAWING INDICATING HOW SYSTEM UNITS TO BE CABLED/CONNECTED TOGETHER
- 3,32 MODIFY EXISTING SYSTEM BLOCK DIAGRAM
- 3,33 DRAWING MAJOR OR COMPLETE SYSTEM REPLACEMENT ON EXISTING PLOT PLAN BACKGROUND. THE DRAWING IS BASED ON INFORMATION RECEIVED FROM THE PROCESS AND SHE DEPARTMENT
- 3,34 DRAWING INDICATING MODIFICATIONS TO FIRE & GAS EQUIPMENT AND CABLING. THE MODIFICATIONS TO THE DRAWING ARE BASED ON INFORMATION RECEIVED FROM THE PROCESS AND SHE DEPARTMENT
- 3,35 DRAWING INDICATING MODIFICATIONS TO FIRE & GAS EQUIPMENT AND CABLING. THE MODIFICATIONS TO THE DRAWING ARE BASED ON INFORMATION RECEIVED FROM THE PROCESS AND SHE DEPARTMENT
- 3,36 MAJOR OR COMPLETE SYSTEM REPLACEMENT
- 3,37 DRAWING INDICATING MODIFICATIONS TO INSTRUMENTS/ EQUIPMENT/ CABLING.



Detailed Design Phase Instrumentation

Discription

- 3,38 DRAWING INDICATING INSTRUMENTS/EQUIPMENT/CABLING TO BE REMOVED.
- 3,39 NEW OR REDRAWN DIAGRAM
- 3,40 DRAWING INDICATING MODIFICATIONS TO JUNCTION BOX CABLING
- 3,41 DRAWING INDICATING CABLES TO BE REMOVED/DISCONNECTED FROM JUNCTION BOX
- 3,42 NEW OR REDRAWN DIAGRAM
- 3,43 DRAWING INDICATING MODIFICATIONS TO PANEL FIELD CABLING
- 3,44 DRAWING INDICATING FIELD CABLES TO BE REMOVED/DISCONNECTED FROM PANEL
- 3,45 COMPLETELY NEW PANEL
- 3,46 DRAWING INDICATING MODIFICATIONS TO PANEL INTERNAL WIRING AND COMPONENTS
- 3,47 DRAWING INDICATING PANEL INTERNAL WIRING AND COMPONENTS TO BE REMOVED
- 3,48 DRAWING INDICATING COMPLETELY NEW PANEL GENERAL ARRANGEMENT AND SECTION DETAILS
- 3,49 DRAWING INDICATING MODIFICATIONS OF PANEL ARRANGEMENT, DIMENSIONS, MATERIALS,
- 3,50 DRAWING INDICATING TO BE REMOVED PANEL COMPONENTS
- 3,51 CHECK OF VENDOR DRAWING/DOCUMENT
- 3,52 CHECK OF VENDOR DRAWING/DOCUMENT STANDARD TYPE DOCUMENT
- 3,53 CHECK OF VENDOR DRAWING/DOCUMENT
- 3,54 CHECK OF VENDOR DRAWING/DOCUMENT STANDARD TYPE DOCUMENT
- 3,55 CHECK OF VENDOR DRAWING/DOCUMENT DOCUMENT WITH MORE THAN 20 DETAILS TO BE VERIFIED
- 3,56 DRAWING NEW LOOP
- 3,57 DRAWING INDICATING MODIFICATIONS TO WIRING/COMPONENTS IN SIGNAL LOOP
- 3,58 DRAWING INDICATING MODIFICATIONS TO WIRING/COMPONENTS IN SIGNAL LOOP
- 3,59 STUDY OPTIONS AND ALTERNATIVES
- 3,60 INPUT TO STRUCTURAL DEPARTMENT FOR WEIGHTS OF TO BE INSTALLED AND/OR MODIFIED INSTRUMENT ITEMS/EQUIPMENT



Detailed Design Phase Instrumentation

Discription

- 3,61 PERFORM A IPF REVIEW AND GENERATE REPORT
- 3,62 USE OF EXTERNAL IPF FACILITATOR
- 3,63 INPUT TO P&ID'S WITH RESPECT TO INSTRUMENTATION
- 3,64 ATTEND AND PREPARE SAFETY MEETING PER PERSON PER DAY
- 3,65 VARIOUS CALCULATIONS IF AND WHEN REQUIRED
- 3,66 NEW TAG ITEM INDICATED IN THE CAUSE & EFFECTS CHART
- 3,67 MODIFICATION TO TAGGED ITEM INDICATED IN CAUSE & EFFECTS CHART
- 3,68 TO BE DEMOLISHED TAG INDICATED IN THE CAUSE & EFFECTS CHART
- 3,69 NEW DRAWING INDICATING FUNCTIONAL CHANGES
- 3,70 MODIFY DRAWING INDICATING FUNCTIONAL CHANGES
- 3,71 DRAWING INDICATING NEW LOGICAL FUNCTIONS
- 3,72 DRAWING INDICATING TO BE MODIFIED LOGICAL FUNCTIONS
- 3,73 DRAWING INDICATING FUNCTIONS TO BE REMOVED
- 3,74 DOCUMENT INDICATING INSTRUMENT I/O CHANGES
- 3,75 FINALIZE IN CONCEPT PHASE CREATED INSTRUMENT LISTING WITH FINAL DATA
- 3,76 FINALIZE IN CONCEPT PHASE CREATED INSTRUMENT DATABASE WITH FINAL DATA
- 3,77 DRAWINGS WHICH DEFINE SYSTEM SOFTWARE FUNCTIONALITY
- 3,78 DRAWINGS WHICH DEFINE VDU LAYOUT AND FUNCTIONALITY
- 3,79 PREPARE INSTRUMENT DATA SHEET AND POPULATE WITH THE RELEVANT DATA. SIMPLE INSTRUMENTS LIKE TRANSMITTERS ETC.
- 3,80 PREPARE INSTRUMENT DATA SHEET AND POPULATE WITH THE RELEVANT DATA.. COMPLEX LIKE CONTROL VALVES ETC.
- 3,81 SYSTEM DESCRIPTION OF NETWORKIS AND SUPERVISORY CONTROL
- 3,82 PREPARE REQUISITION INCLUDING SPECIFICATION, SDLR, INSPECTION REQUIREMENTS, ETC. FOR INSTRUMENTS LIKE PRESSURE OR TEMPERATURE TRANSMITTERS



- 3,83 PREPARE REQUISITION INCLUDING SPECIFICATION, SDLR, INSPECTION REQUIREMENTS, ETC. FOR COMPLICATED INSTRUMENTS LIKE US FLOWMETERS, CORRIOLIS METERS ETC.

Detailed Design Phase Instrumentation

Discription

- 3,84 VENDOR QUOTATIONS TECHNICALLY COMPARED RESULTING IN A BID COMPARISON SHEET. SIMPLE INSTRUMENTS LIKE TRANSMITTERS ETC.
- 3,85 VENDOR QUOTATIONS TECHNICALLY COMPARED RESULTING IN A BID COMPARISON SHEET. COMPLEX INSTRUMENTS LIKE CONTROL VALVES ETC.
- 3,86 ATTENDING AND PREPARATION OF VISITS BY VENDORS AND VISITS TO VENDORS, NORM IS PER EMPLOYEE PER DAY
- 3,87 ATTENDING AND PREPARATION OF VENDOR INSPECTIONS
- 3,88 INPUT TO PROCEDURE
- 3,89 COMMISSIONING SUPPORT IF REQUIRED



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All Phase Detail Index Process engineering

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All Phases Process

Yellow highlighted deliverables are common deliverables across disciplines

Description

- 1,01 PREPARATION AND VISIT TO OFF-SHORE FACILITIES PER PERSON
- 1,02 PREPARATION AND VISIT TO ON-SHORE FACILITIES PER PERSON
- 1,03 REPORT OF FINDINGS DURING SURVEY.
- 1,04 DYNAMIC PRESSURE DROP CALCULATIONS / DP ACROSS CONTROL VALVE/ RELIEF VALVE ETC, INCLUDING WRITE-UP AND CHECKING.
- 1,05 SINGLE LINE OR TWO-PHASE PRESSURE DROP CALCULATION
- 1,06 PUMP CALCULATION, COMPRESSOR CIRCUIT HYDRAULIC PRESSURE DROPS, RELIEF VALVE SYTEMS ETC
- 1,07 PERFORM A HYSIS FLASH ON A SINGLE STREAM (2-PHASE FLASHING FLOW) AND REPORT IN A STREAM TABLE.
- 1,08 PERFORM A HYSIS FLASH ON A SINGLE STREAM (SINGLE-PHASE FLOW) AND REPORT IN A STREAM TABLE.
- 1,09 PERFORM A HYSIS FLASH ON A SINGLE STREAM (3-PHASE FLOW) AND REPORT IN A STREAM TABLE.
- 1,10 FAMILARISE YOURSELF WITH THE PROJECT SCOPE (KICK-OFF, PIR, FEASEBILITY STUDY, BFD, PROJECT SPEC, DSP REVIEW ETC)
- 1,11 PREPARE BASIS FOR DESIGN REPORT. SCOPE AND COMPLEXITY TO BE JUDGED ON A CASE-BY CASE BASIS



Conceptual Design (FEED) Phase Detail Index Phase Process

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Project Scope Description

Conceptual Design (FEED) Phase Process

Discription

- 2,01 CREATE PFD. COMPLEXITY BASED ON APPROX 5 PIECES OF EQUIPMENT
- 2,02 CREATE PFD. COMPLEXITY BASED ON < 5 PIECES OF EQUIPMENT
- 2,03 CREATE PFD. COMPLEXITY BASED ON > 5 PIECES OF EQUIPMENT
- 2,04 MODIFY EXISTING PFD. COMPLEXITY BASED ON ADDING APPROX 3 ADDITIONAL PIECES OF EQUIPMENT.
- 2,05 MODIFY EXISTING PFD. COMPLEXITY BASED ON ADDING < 3 ADDITIONAL PIECES OF EQUIPMENT.
- 2,06 MODIFY EXISTING PFD. COMPLEXITY BASED ON ADDING > 3 ADDITIONAL PIECES OF EQUIPMENT.
- 2,07 CREATE P&ID. COMPLEXITY BASED ON ONE PIECE OF EQUIPMENT, PLUS ASSOCIATED PIPING AND INSTRUMENTATION.
- 2,08 CREATE P&ID. COMPLEXITY BASED ON PIPING OR INSTRUMENTATION (<8 SPECIFIED ITEMS), NO EXTRA EQUIPMENT.
- 2,09 CREATE P&ID. COMPLEXITY BASED ON TWO OR MORE PIECES OF EQUIPMENT OR PIPING/INSTRUMENTATION (>12 SPECIFIED ITEMS).
- 2,10 MODIFY EXISTING P&ID. COMPLEXITY BASED ON ONE ADDITIONAL PIECE OF EQUIPMENT, PLUS ASSOCIATED PIPING AND INSTRUMENTATION
- 2,11 MODIFY EXISTING P&ID. COMPLEXITY BASED ON PIPING OR INSTRUMENTATION (<8 SPECIFIED ITEMS), NO EXTRA EQUIPMENT.
- 2,12 MODIFY EXISTING P&ID. COMPLEXITY BASED ON TWO OR MORE PIECES OF EQUIPMENT AND/OR PIPING/INSTRUMENTATION (>12 SPECIFIED ITEMS).
- 2,13 PIPING SYSTEMS TO BE DEMOLISHED
- 2,14 TIE-IN AND/OR A SINGLE LINE TO BE DEMOLISHED
- 2,15 EQUIPMENT WITH PIPING SYSTEM TO BE DEMOLISHED
- 2,16 PREPARE PROCESS DATA SHEET FOR EQUIPMENT INTERNALS, SPECIAL PIPING ITEMS, ETC.



2,17 DATA SHEETS FOR STANDARD PIPING ITEMS ,(STRAINERS, STEAMTRAPS, ETC)

Conceptual Design (FEED) Phase Process

Discription

- 2,18 EQUIPMENT DATA SHEETS
- 2,19 PROVIDE PROCESS DESIGN INFORMATION FOR AN EQUIPMENT LIST.6-10 ITEMS
- 2,20 PROVIDE PROCESS DESIGN INFORMATION FOR AN EQUIPMENT LIST. LESS THAN 6 ITEMS
- 2,21 PROVIDE PROCESS DESIGN INFORMATION FOR AN EQUIPMENT LIST. MORE THAN 10 ITEMS
- 2,22 PREPARE LINE LIST WITH PROCESS/DESIGN DATA 8-12 LINES
- 2,23 PREPARE LINE LIST WITH PROCESS/DESIGN DATA LESS THAN 8 LINES
- 2,24 PREPARE LINE LIST WITH PROCESS/DESIGN DATA MORE THAN 12 LINES
- 2,25 PROCESS AND DESIGN DATA INPUT BY PROCESS 8-12 ITEMS
- 2,26 PROCESS AND DESIGN DATA INPUT BY PROCESS LESS THAN 8 ITEMS
- 2,27 PROCESS AND DESIGN DATA INPUT BY PROCESS MORE THAN 12 ITEMS
- 2,28 UPDATE REPORT WITH SOME ADDITIONAL ITEMS TO BE DESCRIBED (E.G.RELIEF VALVES, RELIEF SCENARIOS, ALARMS, TRIPS, HIPPS ETC).
- 2,29 UPDATE REPORT MINOR ADDITIONS TO BE DESCRIBED (E.G.RELIEF VALVES, RELIEF SCENARIOS, ALARMS, TRIPS, HIPPS ETC).
- 2,30 MAJOR UPDATE OF THE REPORT (E.G.RELIEF VALVES, RELIEF SCENARIOS, ALARMS, TRIPS, HIPPS ETC).
- 2,31 PREPARE RELIEF VALVE DATA SHEET 8 -12 ITEMS. ATTACHMENT SAFETY MEMORANDUM
- 2,32 PREPARE RELIEF VALVE DATA SHEET LESS THAN 8 ITEMS. ATTACHMENT SAFETY MEMORANDUM
- 2,33 PREPARE RELIEF VALVE DATA SHEET MORE THAN 12 ITEMS. ATTACHMENT SAFETY MEMORANDUM
- 2,34 NEW PSFS
- 2,35 UPDATE PSFS
- 2,36 STUDIES AND REPORT. SCOPE AND COMPLEXITY TO BE JUDGED ON A CASE-BY-CASE BASIS.(CONTROL - SAFEGUARDING -OPERATING PHILOSOPHY/ F&G DETECTION/ FLOW ASSURANCES)



Conceptual Design (FEED) Phase Process

Discription

- 2,37 PREPARE TRP SHEET
- 2,38 WRITE UP CONTROL/SAFEGUARING NARRATIVE. ASSUME A DIRECT LOOP (E.G. LEVEL CONTROLLER OR TRIP).
- 2,39 WRITE UP CONTROL/SAFEGUARING NARRATIVE. ASSUME A SIMPLE DIRECT LOOP (E.G. LEVEL CONTROLLER OR TRIP).
- 2,40 COMPLEX LOOP: E.G. MASTER/SLAVE, MULTIPLE ACTIONS
- 2,41 MODIFY C&E CHARTS. 20 LOOPS
- 2,42 MODIFY C&E CHARTS. LESS THAN 20 LOOPS
- 2,43 MODIFY C&E CHARTS. MORE THAN 20 LOOPS
- 2,44 PED PACKAGE 3 PRESSURE PIPING SYSTEMS
- 2,45 PED PACKAGE LESS THAN 3 PRESSURE PIPING SYSTEMS
- 2,46 PED PACKAGE MORE THAN 3 PRESSURE PIPING SYSTEMS
- 2,47 PREPARATION AND ATTENDANCE MEETING. 2-3 P&ID'S TO REVIEW
- 2,48 PREPARATION AND ATTENDANCE MEETING. ONE P&ID'S TO REVIEW
- 2,49 PREPARATION AND ATTENDANCE MEETING. MORE THAN 3 P&ID'S TO REVIEW
- 2,50 PROCESS ACTIVITIES TO ADDRESS AND CLOSE-OUT ACTION ITEMS FROM VARIOUS SAFETY REVIEWS
- 2,51 ATTEND MEETING INCLUDING PREPARATION



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Detailed Design Phase process

Discription

- 3,01 MODIFY EXISTING PFD. COMPLEXITY BASED ON ADDING APPROX 3 ADDITIONAL PIECES OF EQUIPMENT.
- 3,02 MODIFY EXISTING PFD. COMPLEXITY BASED ON ADDING < 3 ADDITIONAL PIECES OF EQUIPMENT.
- 3,03 MODIFY EXISTING PFD. COMPLEXITY BASED ON ADDING > 3 ADDITIONAL PIECES OF EQUIPMENT.
- 3,04 MODIFY EXISTING P&ID. COMPLEXITY BASED ON ONE ADDITIONAL PIECE OF EQUIPMENT, PLUS ASSOCIATED PIPING AND INSTRUMENTATION
- 3,05 MODIFY EXISTING P&ID. COMPLEXITY BASED ON PIPING OR INSTRUMENTATION (<8 SPECIFIED ITEMS), NO EXTRA EQUIPMENT.
- 3,06 MODIFY EXISTING P&ID. COMPLEXITY BASED ON TWO OR MORE PIECES OF EQUIPMENT AND/OR PIPING/INSTRUMENTATION (>12 SPECIFIED ITEMS).
- 3,07 PIPING SYSTEMS TO BE DEMOLISHED
- 3,08 TIE-IN AND/OR A SINGLE LINE TO BE DEMOLISHED
- 3,09 EQUIPMENT WITH PIPING SYSTEM TO BE DEMOLISHED
- 3,10 PREPARE PROCESS DATA SHEET FOR EQUIPMENT INTERNALS, SPECIAL PIPING ITEMS, ETC.
- 3,11 DATA SHEETS FOR STANDARD PIPING ITEMS ,(STRAINERS, STEAMTRAPS, ETC)
- 3,12 EQUIPMENT DATA SHEETS
- 3,13 PROVIDE PROCESS DESIGN INFORMATION FOR AN EQUIPMENT LIST.6-10 ITEMS
- 3,14 PROVIDE PROCESS DESIGN INFORMATION FOR AN EQUIPMENT LIST. LESS THAN 6 ITEMS
- 3,15 PROVIDE PROCESS DESIGN INFORMATION FOR AN EQUIPMENT LIST. MORE THAN 10 ITEMS
- 3,16 PREPARE LINE LIST WITH PROCESS/DESIGN DATA 8-12 LINES
- 3,17 PREPARE LINE LIST WITH PROCESS/DESIGN DATA LESS THAN 8 LINES
- 3,18 PREPARE LINE LIST WITH PROCESS/DESIGN DATA MORE THAN 12 LINES
- 3,19 PROCESS AND DESIGN DATA INPUT BY PROCESS 8-12 ITEMS
- 3,20 PROCESS AND DESIGN DATA INPUT BY PROCESS LESS THAN 8 ITEMS
- 3,21 PROCESS AND DESIGN DATA INPUT BY PROCESS MORE THAN 12 ITEMS



- 3,22 UPDATE REPORT WITH SOME ADDITIONAL ITEMS TO BE DESCRIBED (E.G.RELIEF VALVES, RELIEF SCENARIOS, ALARMS, TRIPS, HIPPS ETC).

Detailed Design Phase process

Discription

- 3,23 UPDATE REPORT MINOR ADDITIONS TO BE DESCRIBED (E.G.RELIEF VALVES, RELIEF SCENARIOS, ALARMS, TRIPS, HIPPS ETC).
- 3,24 MAJOR UPDATE OF THE REPORT (E.G.RELIEF VALVES, RELIEF SCENARIOS, ALARMS, TRIPS, HIPPS ETC).
- 3,25 PREPARE RELIEF VALVE DATA SHEET 8 -12 ITEMS. ATTACHMENT SAFETY MEMORANDUM
- 3,26 PREPARE RELIEF VALVE DATA SHEET LESS THAN 8 ITEMS. ATTACHMENT SAFETY MEMORANDUM
- 3,27 PREPARE RELIEF VALVE DATA SHEET MORE THAN 12 ITEMS. ATTACHMENT SAFETY MEMORANDUM
- 3,28 MODIFY EXISTING P&ID. COMPLEXITY BASED ON PIPING OR INSTRUMENTATION (<8 SPECIFIED ITEMS), NO EXTRA EQUIPMENT.
- 3,29 STUDIES AND REPORT. SCOPE AND COMPLEXITY TO BE JUDGED ON A CASE-BY-CASE BASIS.(CONTROL - SAFEGUARDING -OPERATING PHILOSOPHY/ F&G DETECTION/ FLOW ASSURANCES)
- 3,30 PREPARE TRP SHEET
- 3,31 WRITE UP CONTROL/SAFEGUARING NARRATIVE. ASSUME A DIRECT LOOP (E.G. LEVEL CONTROLLER OR TRIP).
- 3,32 WRITE UP CONTROL/SAFEGUARING NARRATIVE. ASSUME A SIMPLE DIRECT LOOP (E.G. LEVEL CONTROLLER OR TRIP).
- 3,33 COMPLEX LOOP: E.G. MASTER/SLAVE, MULTIPLE ACTIONS
- 3,34 MODIFY C&E CHARTS. 20 LOOPS
- 3,35 MODIFY C&E CHARTS. LESS THAN 20 LOOPS
- 3,36 MODIFY C&E CHARTS. MORE THAN 20 LOOPS
- 3,37 PED PACKAGE 3 PRESSURE PIPING SYSTEMS
- 3,38 PED PACKAGE LESS THAN 3 PRESSURE PIPING SYSTEMS
- 3,39 PED PACKAGE MORE THAN 3 PRESSURE PIPING SYSTEMS
- 3,40 PREPARATION AND ATTENDANCE MEETING. 2-3 P&ID'S TO REVIEW
- 3,41 PREPARATION AND ATTENDANCE MEETING. ONE P&ID'S TO REVIEW



Detailed Design Phase process

Discription

- 3,42 PREPARATION AND ATTENDANCE MEETING. MORE THAN 3 P&ID'S TO REVIEW
- 3,43 PROCESS ACTIVITIES TO ADDRESS AND CLOSE-OUT ACTION ITEMS FROM VARIOUS SAFETY REVIEWS
- 3,44 ATTEND MEETING INCLUDING PREPARATION
- 3,45 NEW PIPING SYSTEM TO BE DESCRIBED IN EXISTING OPERATING MANUAL. (PLATFORM OPERATING PROCEDURES MANUAL/ PIPELINE OPERATING PROCEDURES MANUAL)
- 3,46 MINOR MODIFICATIONS OF EXISTING MANUAL
- 3,47 NEW PIPING SYSTEM WITH NEW EQUIPMENT TO BE DESCRIBED IN EXISTING OPERATING MANUAL.
- 3,48 MODIFY SKETCHES, BASED ON ADDING ONE EQUIPMENT ITEM.
- 3,49 MODIFY SKETCHES, BASED ON SMALL PIPING/INSTRUMENTATION CHANGES
- 3,50 MODIFY SKETCHES, BASED ON ADDING MULTIPLE EQUIPMENT ITEMS.
- 3,51 PROCESS INPUT TO THE COMMISSIONING MANUAL. (PRE-COM. PROCEDURES/ OPERATING START-UP INSTRUCTIONS)
- 3,52 CHECK CONSTRUCTION DRAWINGS AND REPORTS FROM VENDOR W.R.T. TECHNICAL REQUIREMENTS.
- 3,53 EVALUATE AND COMPARE VENDOR BIDS AND QUOTES. ONE PIECE OF EQUIPMENT
- 3,54 EVALUATE AND COMPARE VENDOR BIDS AND QUOTES. PIPING ITEM
- 3,55 EVALUATE AND COMPARE VENDOR BIDS AND QUOTES. PACKAGE UNIT



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Index**

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All Phase Technical Safety Detail Index

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- 1,01 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,02 VISIT TO OFF-SHORE FACILITIES PER DAY PER PERSON
- 1,03 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,04 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS ON INPUT) AND/OR MORE THEN 5 ITEMS/ISSUES TO BE CHECKED.
- 1,05 PREPARATION OF SITE SURVEY INCLUDING MAKING SEPARATE SITE SURVEY DRAWING BOOK.
- 1,06 VISIT TO ON-SHORE FACILITIES PER DAY PER PERSON
- 1,07 REPORT OF FINDINGS BY ONE DISCIPLINE DURING SURVEY LESS THEN 5 ITEMS/ISSUES TO BE CHECKED
- 1,08 COMPILING REPORT OF FINDINGS BY VARIOUS DISCIPLINES DURING SURVEY (EACH DISCIPLINE SUPPLIES ITS ON INPUT) AND/OR MORE THEN 5 ITEMS/ISSUES TO BE CHECKED.
- 1,09 RETRIEVAL OF DRAWINGS FROM COMPANY ELECTRONIC ARCHIVE
- 1,10 RETRIEVAL OF DRAWINGS/DOCUMENTS FROM COMPANY NON-ELECTRONIC ARCHIVE (E.G. DEN HELDER) OR DOCUMENTS/DRAWINGS SUBJECT TO OTHER PARALLEL RUNNING PROJECTS
- 1,11 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,12 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,13 3 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,14 ATTEND BFD MEETING AND GIVING REQUIRED TECHNICAL BACKUP FOR THE BFD. COMPLEXITY BASED ON A CLEAR PROJECT SCOPE AND NO EVALUATION OF TECHNICAL OPTIONS.
- 1,15 1/2 DAY MEETING ATTENDANCE
- 1,16 SHE PLAN FOR PROJECT THAT DOES NOT (OR HARDLY) AFFECT THE SAFETY CASE RELATED DOCUMENTS
- 1,17 PROJECT IS MINOR MODIFICATION (E.G. 'LIKE-FOR-LIKE') OR SHE PLAN OF A PREVIOUS, COMPARABLE PROJECT CAN BE USED (WITH ONLY MINIMAL CHANGES)



All Phase - Technical Safety

Discription

- 1,18 SHE PLAN FOR PROJECT THAT AFFECTS SAFETY CASE RELATED DOCUMENTS
- 1,19 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,20 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,21 3 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,22 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,23 ONLY THE ENVIRONMENTAL CHECKLIST, NO MEETING
- 1,24 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,25 1/2 DAY MEETING ATTENDANCE
- 1,26 E.G. FOR CHOICE OF CHEMICALS, ERGONOMICS, NOISE ETC.
- 1,27 FIRE PROTECTION ANALYSIS MEETING AND REPORT, INCLUDES CHAIR AND SCRIBE
- 1,28 COARSE QUANTITATIVE RISK ANALYSIS REPORT
- 1,29 INFORM HSE OR SODM AUTHORITY ON LARGE PROJECTS, INCLUDING E.G. PROJECT INFORMATION/DESCRIPTION, PERMIT APPLICATION, ENVIRONMENTAL IMPACT ASSESSMENT, ETC.
- 1,30 VALIDATION OF FEASIBILITY OF THE FAVORITE OPTION WITH AUTHORITIES, I.E. GENERATING SUFFICIENT BUT MINIMUM INFORMATION LEVEL TO AUTHORITIES OR: START OF EIA/MER IN PHASE 3 REQUIRED BECAUSE OF TIGHT PROJECT SCHEDULE
- 1,31 START OF PERMIT APPLICATION IN PHASE 3 REQUIRED BECAUSE OF TIGHT PROJECT SCHEDULE
- 1,31 CREATING REGISTER, ONCE PER PROJECT
- 1,32 PREPARE AND MAINTAIN REGISTER THAT CONTAINS ALL SHE RELATED ACTIONS FROM THE PROJECT
- 1,33 CLOSING OUT OF ACTIONS BY RELEVANT DISCIPLINE, SHE TO MONITOR AND VALIDATE
- 1,34 SUPPORT TO ORGANIZATION TO BE IDENTIFIED AND REQUESTED PER PROJECT
- 1,35 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,36 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,37 3 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 1,38 IN CASE OF ACTIVITIES REQUIRED NOT SPECIFIED IN THIS LIST



Conceptual Design (FEED) Phase Detail Index Structural Steel

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Conceptual Design (FEED) Phase Technical Safety

Discription

- 2,01 FAMILIARIZATION WITH THE PROPOSED PROJECT SCOPE
- 2,02 REPORT OF FINDINGS FROM THE ENGINEERING AND DESIGN WORK CONDUCTED DURING CONCEPTUAL DESIGN
- 2,03 1/2 DAY MEETING ATTENDANCE
- 2,04 SHE MANHOUR ESTIMATE FOR PROJECT THAT DOES NOT (OR HARDLY) AFFECT THE SAFETY CASE RELATED DOCUMENTS
- 2,05 SHE MANHOUR ESTIMATE FOR PROJECT THAT IS MINORMODIFICATION (E.G. 'LIKE-FOR-LIKE') OR ESTIMATE OF A PREVIOUS, COMPARABLE PROJECT CAN BE USED (WITH ONLY MINIMAL CHANGES)
- 2,06 SHE MANHOUR ESTIMATE FOR PROJECT THAT AFFECTS SAFETY CASE RELATED DOCUMENTS
- 2,07 SHE PLAN FOR PROJECT THAT DOES NOT (OR HARDLY) AFFECT THE SAFETY CASE RELATED DOCUMENTS
- 2,08 PROJECT IS MINOR MODIFICATION (E.G. 'LIKE-FOR-LIKE') OR SHE PLAN OF A PREVIOUS, COMPARABLE PROJECT CAN BE USED (WITH ONLY MINIMAL CHANGES)
- 2,09 SHE PLAN FOR PROJECT THAT AFFECTS SAFETY CASE RELATED DOCUMENTS
- 2,10 PROJECT SCOPE CHANGE THAT AFFECTS (SOME) SHE ACTIVITIES BUT NOT (OR HARDLY) THE SAFETY CASE RELATED DOCUMENTS
- 2,11 MINOR PROJECT SCOPE CHANGE, E.G. 'LIKE-FOR-LIKE'
- 2,12 PROJECT SCOPE CHANGE THAT AFFECTS SAFETY CASE RELATED DOCUMENTS
- 2,13 PROJECT IS NORMAL CHANGE PROPOSAL
- 2,14 PROJECT IS MINOR MODIFICATION (E.G. 'LIKE-FOR-LIKE') OR SCSI OF A PREVIOUS, COMPARABLE PROJECT CAN BE USED (WITH ONLY MINIMAL CHANGES)
- 2,15 PROJECT IS CAPITAL PROJECT
- 2,16 1/2 DAY MEETING INCLUDING REPORT
- 2,17 1/4 DAY MEETING INCLUDING REPORT
- 2,18 1 DAY MEETING INCLUDING REPORT
- 2,19 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE



Conceptual Design (FEED) Phase Technical Safety

Discription

- 2,20 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 2,21 3 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 2,22 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 2,23 UPDATE OF EXISTING REPORT WITHOUT MEETING
- 2,24 UPDATE OF EXISTING REPORT WITH 1 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 2,25 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 2,26 ONLY THE ENVIRONMENTAL CHECKLIST, NO MEETING
- 2,27 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 2,28 UPDATE OF EXISTING REPORT WITH 1/4 DAY MEETING, CHAIR AND SCRIBE ARE SAME PERSON
- 2,29 UPDATE OF THE ENVIRONMENTAL CHECKLIST
- 2,30 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING, CHAIR AND SCRIBE ARE SAME PERSON
- 2,31 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 2,32 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE AND COMBINED WITH OTHER HAZOP MEETING
- 2,33 3 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 2,34 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 2,35 UPDATE OF EXISTING REPORT WITH 1/4 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 2,36 UPDATE OF EXISTING REPORT WITH 1 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 2,37 1/2 DAY MEETING ATTENDANCE
- 2,38 1/2 DAY MEETING ATTENDANCE
- 2,39 PARTICIPATE IN ESTABLISHING THE FIRE & GAS PHILOSOPHY VIA REVIEW MEETING OR REVIEW OF STANDARDS
- 2,40 1/2 DAY MEETING ATTENDANCE
- 2,41 PARTICIPATE IN ESTABLISHING THE FIRE-FIGHTING REQUIREMENTS VIA REVIEW MEETING OR REVIEW OF STANDARDS
- 2,42 1/2 DAY MEETING ATTENDANCE



2,43 ESTABLISH PASSIVE FIRE PROTECTION REQUIREMENTS VIA REVIEW MEETING OR REVIEW OF STANDARDS

2,44 1/2 DAY MEETING ATTENDANCE

Conceptual Design (FEED) Phase Technical Safety

Discription

2,45 1 DAY MEETING INCLUDING REPORT, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED

2,46 1/2 DAY MEETING INCLUDING REPORT, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED

2,47 3 DAY MEETING INCLUDING REPORT, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED

2,48 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED

2,49 UPDATE OF EXISTING REPORT WITHOUT MEETING

2,50 UPDATE OF EXISTING REPORT WITH 1 DAY MEETING, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED

2,51 E.G. FOR EMISSION, IMISSION OR RADIATION CALCULATIONS

2,52 NEW OR CONTINUATION OF PREVIOUS PHASE

2,53 NEW OR CONTINUATION OF PREVIOUS PHASE

2,54 CREATING REGISTER, ONCE PER PROJECT

2,55 PREPARE AND MAINTAIN REGISTER THAT CONTAINS ALL SHE RELATED ACTIONS FROM THE PROJECT

2,56 CLOSING OUT OF ACTIONS BY RELEVANT DISCIPLINE, SHE TO MONITOR AND VALIDATE

2,57 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE

2,58 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE

2,59 3 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE

2,60 PREPARE INPUT + ATTEND MEETING

2,61 PREPARE INPUT, NO MEETING ATTENDANCE

2,62 PREPARE INPUT + ATTEND MEETING

2,63 UPDATE OF CURRENT LOCATION VGM DOCUMENT

2,64 ESCAPE AND EVACUATION LAYOUT REVIEW AND DRAWING PREPARATION



Conceptual Design (FEED) Phase Technical Safety

Discription

- 2,65 UPDATE OF CURRENT LOCATION ESCAPE AND EVACUATION LAYOUTS
- 2,66 EXPLOSION OVERPRESSURE MODELLING AND CALCULATIONS
- 2,67 UPDATE OF CURRENT LOCATION EXPLOSION OVERPRESSURE CALCULATIONS
- 2,68 FIRE PROTECTION ANALYSIS MEETING AND REPORT, INCLUDES CHAIR AND SCRIBE
- 2,69 UPDATE OF PREVIOUS PHASE OR UPDATE OF EXISTING LOCATION FIREPRAN
- 2,70 QUANTITATIVE RISK ASSESSMENT REPORT
- 2,71 UPDATE OF CURRENT LOCATION QRA
- 2,72 DROPPED OBJECT STUDY REPORT
- 2,73 UPDATE OF CURRENT LOCATION DROPPED OBJECT STUDY
- 2,74 FIRE-FIGHTING & RESCUE PLAN REPORT
- 2,75 UPDATE OF CURRENT LOCATION Fire-Fighting & Rescue plan
- 2,76 EXPLOSION HAZARD ANALYSIS REPORT
- 2,77 UPDATE OF CURRENT LOCATION EXPLOSION HAZARD ANALYSIS
- 2,78 STRUCTURAL CONSEQUENCE ANALYSIS REPORT
- 2,79 UPDATE OF CURRENT LOCATION STRUCTURAL CONSEQUENCE ANALYSIS
- 2,80 SHIP COLLISION ANALYSIS REPORT
- 2,81 UPDATE OF CURRENT LOCATION SHIP COLLISION ANALYSIS
- 2,82 EMERGENCY SYSTEM SURVIVABILITY ANALYSIS REPORT
- 2,83 UPDATE OF CURRENT LOCATION ESSA
- 2,84 SMOKE INGRESS ANALYSIS REPORT
- 2,85 UPDATE OF CURRENT LOCATION SIA
- 2,86 ESCAPE, EVACUATION, RESCUE AND TEMPORARY REFUGE ANALYSIS REPORT
- 2,87 UPDATE OF CURRENT LOCATION EERTA
- 2,88 MANUAL OF PERMITTED OPERATIONS MATRIX
- 2,89 UPDATE OF CURRENT LOCATION MOPO



2,90 IN CASE OF ACTIVITIES REQUIRED NOT SPECIFIED IN THIS LIST

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Detailed Design Phase Technical Safety

Discription

- 3,01 DETERMINE PROJECT SCOPE AS INDICATED IN THE VARIOUS DOCUMENTS
- 3,02 1/2 DAY MEETING ATTENDANCE
- 3,03 PROJECT SCOPE CHANGE THAT AFFECTS (SOME) SHE ACTIVITIES BUT NOT (OR HARDLY) THE SAFETY CASE RELATED DOCUMENTS
- 3,04 MINOR PROJECT SCOPE CHANGE, E.G. 'LIKE-FOR-LIKE'
- 3,05 PROJECT SCOPE CHANGE THAT AFFECTS SAFETY CASE RELATED DOCUMENTS
- 3,06 NORMAL PROJECT SCOPE CHANGE
- 3,07 MINOR PROJECT SCOPE CHANGE, E.G. 'LIKE-FOR-LIKE'
- 3,08 MAJOR PROJECT SCOPE CHANGE
- 3,09 1/2 DAY MEETING INCLUDING REPORT
- 3,10 1/4 DAY MEETING INCLUDING REPORT
- 3,11 1 DAY MEETING INCLUDING REPORT
- 3,12 UPDATE OF EXISTING REPORT WITH 1/4 DAY MEETING
- 3,13 UPDATE OF EXISTING REPORT WITHOUT MEETING
- 3,14 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING
- 3,15 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 3,16 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 3,17 3 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 3,18 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 3,19 UPDATE OF EXISTING REPORT WITHOUT MEETING
- 3,20 UPDATE OF EXISTING REPORT WITH 1 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 3,21 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 3,22 ONLY THE ENVIRONMENTAL CHECKLIST, NO MEETING
- 3,23 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE



- 3,24 UPDATE OF EXISTING REPORT WITH 1/4 DAY MEETING, CHAIR AND SCRIBE ARE SAME PERSON
- 3,25 UPDATE OF THE ENVIRONMENTAL CHECKLIST
- 3,26 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING, CHAIR AND SCRIBE ARE SAME PERSON

Detailed Design Phase

Technical Safety

Discription

- 3,27 1 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 3,28 1/2 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE AND COMBINED WITH OTHER HAZOP MEETING
- 3,29 3 DAY MEETING INCLUDING REPORT, CHAIR + SCRIBE PROVIDED BY SHE
- 3,30 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 3,31 UPDATE OF EXISTING REPORT WITH 1/4 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 3,32 UPDATE OF EXISTING REPORT WITH 1 DAY MEETING, CHAIR + SCRIBE PROVIDED BY SHE
- 3,33 1/2 DAY MEETING ATTENDANCE
- 3,34 1/2 DAY MEETING ATTENDANCE
- 3,35 PARTICIPATE IN ESTABLISHING THE FIRE & GAS PHILOSOPHY VIA REVIEW MEETING OR REVIEW OF STANDARDS
- 3,36 1/2 DAY MEETING ATTENDANCE
- 3,37 PARTICIPATE IN ESTABLISHING THE FIRE-FIGHTING REQUIREMENTS VIA REVIEW MEETING OR REVIEW OF STANDARDS
- 3,38 1/2 DAY MEETING ATTENDANCE
- 3,39 ESTABLISH PASSIVE FIRE PROTECTION REQUIREMENTS VIA REVIEW MEETING OR REVIEW OF STANDARDS
- 3,40 1/2 DAY MEETING ATTENDANCE
- 3,41 1 DAY MEETING INCLUDING REPORT, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED
- 3,42 1/2 DAY MEETING INCLUDING REPORT, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED
- 3,43 3 DAY MEETING INCLUDING REPORT, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED
- 3,44 UPDATE OF EXISTING REPORT WITH 1/2 DAY MEETING, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED
- 3,45 UPDATE OF EXISTING REPORT WITHOUT MEETING
- 3,46 UPDATE OF EXISTING REPORT WITH 1 DAY MEETING, SHE ENGINEER + SCRIBE PROVIDED BY SHE, CHAIR NOT PROVIDED
- 3,47 E.G. FOR EMISSION, IMISSION OR RADIATION CALCULATIONS



Detailed Design Phase

Technical Safety

Discription

- 3,48 NEW OR CONTINUATION OF PREVIOUS PHASE
- 3,49 NEW OR CONTINUATION OF PREVIOUS PHASE
- 3,50 CREATING REGISTER, ONCE PER PROJECT
- 3,51 PREPARE AND MAINTAIN REGISTER THAT CONTAINS ALL SHE RELATED ACTIONS FROM THE PROJECT
- 3,52 CLOSING OUT OF ACTIONS BY RELEVANT DISCIPLINE, SHE TO MONITOR AND VALIDATE
- 3,53 SUPPORT IN PREPARING OR REVIEW OF SCRIPT / SAFETY CASE
- 3,54 1 DAY MEETING ATTENDANCE
- 3,55 SUPPORT IN PREPARING TRA
- 3,56 1/4 DAY AUDIT MEETING INCLUDING REPORT, CHAIR + SHE ENGINEER PROVIDED BY SHE
- 3,57 1/2 DAY AUDIT MEETING INCLUDING REPORT, CHAIR + SHE ENGINEER PROVIDED BY SHE
- 3,58 GENERAL REGISTER (NOT PROJECT SPECIFIC) TO KEEP TRACK, WHICH PROJECT RESULTS IN WHICH ENVIRONMENTAL EFFECT
- 3,59 GENERAL REGISTER (NOT PROJECT SPECIFIC) TO KEEP TRACK, WHICH PROJECT AFFECTS WHICH SAFETY CASE RELATED DOCUMENTS
- 3,60 UPDATE OF CURRENT LOCATION VGM DOCUMENT
- 3,61 ESCAPE AND EVACUATION LAYOUT REVIEW AND DRAWING PREPARATION
- 3,62 UPDATE OF CURRENT LOCATION ESCAPE AND EVACUATION LAYOUTS
- 3,63 EXPLOSION OVERPRESSURE MODELLING AND CALCULATIONS
- 3,64 UPDATE OF CURRENT LOCATION EXPLOSION OVERPRESSURE CALCULATIONS
- 3,66 UPDATE OF PREVIOUS PHASE OR UPDATE OF EXISTING LOCATION FIREPRAN
- 3,67 QUANTITATIVE RISK ASSESSMENT REPORT
- 3,68 UPDATE OF CURRENT LOCATION QRA



Detailed Design Phase Technical Safety

Discription

- 3,69 DROPPED OBJECT STUDY REPORT
- 3,70 UPDATE OF CURRENT LOCATION DROPPED OBJECT STUDY
- 3,71 FIRE-FIGHTING & RESCUE PLAN REPORT
- 3,72 UPDATE OF CURRENT LOCATION Fire-Fighting & Rescue plan
- 3,73 EXPLOSION HAZARD ANALYSIS REPORT
- 3,74 UPDATE OF CURRENT LOCATION EXPLOSION HAZARD ANALYSIS
- 3,75 STRUCTURAL CONSEQUENCE ANALYSIS REPORT
- 3,76 UPDATE OF CURRENT LOCATION STRUCTURAL CONSEQUENCE ANALYSIS
- 3,77 SHIP COLLISION ANALYSIS REPORT
- 3,78 UPDATE OF CURRENT LOCATION SHIP COLLISION ANALYSIS
- 3,79 EMERGENCY SYSTEM SURVIVABILITY ANALYSIS REPORT
- 3,80 UPDATE OF CURRENT LOCATION ESSA
- 3,81 SMOKE INGRESS ANALYSIS REPORT
- 3,82 UPDATE OF CURRENT LOCATION SIA
- 3,83 ESCAPE, EVACUATION, RESCUE AND TEMPORARY REFUGE ANALYSIS REPORT
- 3,84 UPDATE OF CURRENT LOCATION EERTA
- 3,85 MANUAL OF PERMITTED OPERATIONS MATRIX
- 3,86 UPDATE OF CURRENT LOCATION MOPO
- 3,87 IN CASE OF ACTIVITIES REQUIRED NOT SPECIFIED IN THIS LIST



Construction Phase

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Construction Phase

Discription

- 4,01 PROJECT SCOPE CHANGE THAT AFFECTS (SOME) SHE ACTIVITIES BUT NOT (OR HARDLY) THE SAFETY CASE RELATED DOCUMENTS
- 4,02 MINOR PROJECT SCOPE CHANGE, E.G. 'LIKE-FOR-LIKE'
- 4,03 PROJECT SCOPE CHANGE THAT AFFECTS SAFETY CASE RELATED DOCUMENTS
- 4,04 PREPARE AND MAINTAIN REGISTER THAT CONTAINS ALL SHE RELATED ACTIONS FROM THE PROJECT
- 4,05 CLOSING OUT OF ACTIONS BY RELEVANT DISCIPLINE, SHE TO MONITOR AND VALIDATE
- 4,06 EXPEDITING, REGISTRATING ETC.
- 4,07 GENERAL SUPPORT ACTIVITIES TO THE PROJECT



Commissioning Phase

**Engineering, Safety, Constr, Project support
Commissioning Phase**

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Discription

- 5,01 PROJECT SCOPE CHANGE THAT AFFECTS (SOME) SHE ACTIVITIES BUT NOT (OR HARDLY) THE SAFETY CASE RELATED DOCUMENTS
- 5,02 MINOR PROJECT SCOPE CHANGE, E.G. 'LIKE-FOR-LIKE'
- 5,03 PROJECT SCOPE CHANGE THAT AFFECTS SAFETY CASE RELATED DOCUMENTS
- 5,04 PREPARE AND MAINTAIN REGISTER THAT CONTAINS ALL SHE RELATED ACTIONS FROM THE PROJECT
- 5,05 CLOSING OUT OF ACTIONS BY RELEVANT DISCIPLINE, SHE TO MONITOR AND VALIDATE
- 5,06 GENERAL SUPPORT ACTIVITIES TO THE PROJECT



Close out Phase

Page 305 to 306

Closeout Phase

Yellow highlighted deliverables are common deliverables across disciplines

Discription

- 6,01 CHECK IF AS-BUILT DOCUMENTS ARE CONFORM DESIGN INTENT, E.G. ESCAPE AND EVACUATION LAYOUTS
- 6,02 PROJECT SCOPE CHANGE THAT AFFECTS (SOME) SHE ACTIVITIES BUT NOT (OR HARDLY) THE SAFETY CASE RELATED DOCUMENTS
- 6,03 MINOR PROJECT SCOPE CHANGE, E.G. 'LIKE-FOR-LIKE'
- 6,04 PROJECT SCOPE CHANGE THAT AFFECTS SAFETY CASE RELATED DOCUMENTS
- 6,05 PREPARE AND MAINTAIN REGISTER THAT CONTAINS ALL SHE RELATED ACTIONS FROM THE PROJECT
- 6,06 CLOSING OUT OF ACTIONS BY RELEVANT DISCIPLINE, SHE TO MONITOR AND VALIDATE
- 6,07 PREPARING REPORT THAT CONTAINS SHE ACTION REGISTER, ALL ACTIONS CLOSED OUT AND AUDITABLE PROOF AS FAR AS AVAILABLE

Risk Matric

The risk matric covers both Onshore and Offshore brown fields engineering oil & Gas as well as LSTK type of contracts and should be used with care in all cases

We also have four types of Tasks / Activities

- 1) *Simple*
- 2) *Normal*
- 3) *Complicated / Complex*
- 4) *Standard*

