

Project Systems and Support Office

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ISE Project Management

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Lead, South Dakota, September 22 - September 25, 2009

Figure Courtesy PDG and I BNI

ISE Project Controls Support

- Provide Experiments with templates and samples
- Assist with the Work Breakdown Structure development
- Assist with the schedule development and maintenance
- Assist with the milestone development
- Assist with the cost estimating and range development
- Assist with the project execution plan development
- Provide any additional project controls support
- Provide Project Controls Integration across all satellite offices

Experiment Deliverables – Phase I

Sample Templates will be developed and implemented in two Phases:

Phase I – CD-1 - PDR Level -Deliverables include:

- Preliminary Project Execution Plan
 - ➤ Science and Project Objectives
 - Experiment collaboration team roles and responsibilities,
 - ➤ Infrastructure requirements
 - ➤ Work breakdown structure and dictionary
 - ➤ Initial cost estimate and range
 - ➤ Pre-construction milestones, initial version of construction milestones
 - ➤ Preliminary Project Execution Plan
 - > Preliminary hazard assessment, analysis and mitigation plan
 - ➤ Preliminary Risk Assessment

Experiment Deliverables - Phase II

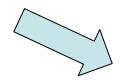
- Phase II CD-2 Beyond the PDR timeframe deliverables include:
- Update Project Execution Plan
 - ➤ Science and Project Objective
 - Experiment collaboration team roles and responsibilities,
 - Preliminary Infrastructure and technical functional requirements
 - ➤ Basis of design, applicable codes
 - ➤ Design reviews: definition and schedule
 - ➤ Work breakdown structure and dictionary
 - ➤ A full, bottom-up cost estimate and risk-based contingency
 - ➤ Detail schedule: pre-construction and construction, including milestones
 - > Experiment management plan

Experiment Deliverables – Phase II Continued

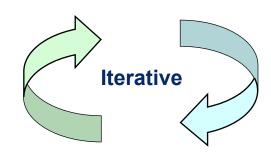
- Phase II CD-2 Beyond the PDR timeframe deliverables include:
- Update Project Execution Plan
 - ➤ Integrated safety management plan
 - > Preliminary hazard assessment, analysis and mitigation plan
 - ➤ Risk analysis and mitigation plan
 - > Experiment assembly and underground installation plan
 - > Requirements management plan
 - Operational readiness criteria
 - ➤ Operations plan
 - > Experiment preliminary design
 - ➤ Interface definition document with location layout

ISE Document Review Process

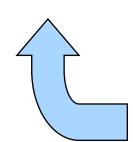
DUSEL Team
Identify Experiment and team. Send templates guidance to PI



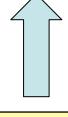
PI and Team
Review and Incorporate
comments Finalize
Phase I Documents



PI and Team
Further Definition of
Cost, schedule,
Milestones and
Phase I Documentation



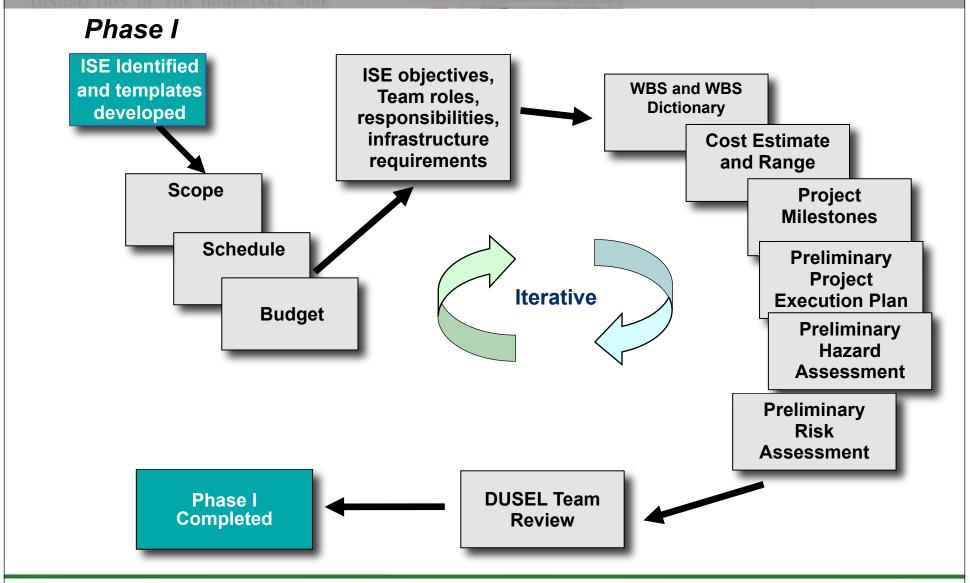
Proposal Reviewers
Reviews ISE Project
Management Documents



DUSEL Project Controls

Assist with development of documents

ISE Document Development Process



ISE Phase 1 Milestones and Deliverables

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| 1101.01020 | 09-Oct-08 A | | Q3 | • S4 So | Q1 icitation | Q2 Q | 3 Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
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| 1101.01040 | | 09-Jan-09 A | | | ▼ 54 F10 | | 1 | | | | | | | | | | | | |
| 113.01105 | 01-Jul-09 A | | | | | ◆ Sta | rt Integrated | Suite of E | Experimer | nts Manag | gement | | | | | | | | |
| 1101.01060 | 05-Aug-09 A | | | | | | S4 Awards A | nnounce | d | | | | | | | | | | |
| 113.01125 | | 30-Sep-09 | | | | | ◆ Existing | ISE too | ls and ten | mplates id | entified | | | | | | | | |
| 1101.01080 | 01-Oct-09* | | | 1 | | | ◆ DUSEL | ISE Wo | rkshop | | | | | | | | | | |
| 113.01255 | | 09-Oct-09 | | | | | ◆ DUSE | L Team r | eviews a | nd approv | es Experir | ment Proj | ect Exec | ution Pla | n Template | е | | | |
| 113.01235 | | 09-Oct-09 | | | | | ◆ ISE Ex | kperimen | t Data ten | nplates de | eveloped | | | | | | | | |
| 112.01115 | | 06-Nov-09 | | | | | ◆ Sub | omit draft | ISE Scop | e and Fa | cility Integ | ration Pla | n to ISE | Experim | ental Tean | n Leads f | or review | and reco | mmend |
| 112.02235 | | 01-Dec-09 | | | | | • [| USEL E | xperimen | t Require | ments Doc | uments [| Delivered | to ISE | | | | | |
| 112.01125 | | 03-Dec-09 | | | | | •1 | SE Scop | e and Fad | cility Integ | ration Plar | n reviewe | d and ap | proved | | | | | |
| 1102.02285 | | 29-Jan-10 | | | | | | ◆ Pha | ise I - Re | cieve Dra | ft ISE Exp | eriment [| Design Pa | ackage (E | DP) from | Experime | ent | | |
| 112.02405 | | 31-Mar-10 | | | | | | | Submit | Phase I | DUSEL E | kperimen | t Interfac | e Definiti | on (DEI) D | ocument | s to CCB | for revie | w and a |
| 123.010110 | | 01-Apr-10 | | | | | | | • EH&S | Documen | its from ISI | E deliver | ed | | | | | | |
| 112.02415 | | 30-Apr-10 | | | | | | | ◆ Rev | iew Final | Draft of Pl | nase I E | P and D | El Docun | nents Fina | lized and | Approve | d | |
| 123.020130 | | 25-Jun-10 | | | | | | | · · · · · · · · | Deliver | ES&H ISE | Checklis | t to Expe | eriments I | Based on A | Analysis | | | |
| 1111.12100 | | 05-Aug-10 | | | | | | | | ◆ Del | iver Final I | SE Expe | riment De | esign Pad | kage (ED | P) | | | |
| 112.02330 | | 05-Aug-10 | | | | | | | | ◆ Exp | eriment R | equireme | nts Defir | nition Doc | uments R | eceived f | rom ISE | | |
| 113.01435 | | 19-Aug-10 | | | | | | | | ◆ Pi | nase I DUS | SEL ISE I | Experime | nt Desig | Package | s comple | ted | | |
| 111.01040 | 30-Sep-10 | | | | | | | | | | Prelimin | ary Desig | gn Repor | t (PDR) s | ubmitted t | o NSF (E | arly Finis | sh) | |
| | | | | 1 | E | | | | | 10 | | d d | | | | | E | <u> </u> | 11 |
| Actual Work | | | | | | Homestake DUSEL Project | | | | | | | | | 1 of 1 | | Н | OMESTAKE | |
| Critical Remaining Work Milestone | | | | ISE Milestone Schedule | | | | | | | | | | 01-Oct-09 | | P | SE | | |