

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 48
2. AMENDMENT/MODIFICATION NO. 0108	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable) 19-D-670
6. ISSUED BY NNSA M&O Contracting Branch NA-APM-131 Albuquerque Complex P.O. Box 5400 Albuquerque NM 87185-5400	CODE 892332	7. ADMINISTERED BY (If other than Item 6) NNSA Nevada Field OFC NA-00-NV P.O. Box 98518 Las Vegas NV 89193-8518	CODE 05002
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) Mission Support And Test Services LLC Attn: Paul Spickard PO Box 98521 M/S NLV019 Las Vegas NV 891938421		(x)	9A. AMENDMENT OF SOLICITATION NO.
CODE 080083514		FACILITY CODE	9B. DATED (SEE ITEM 11)
		x	10A. MODIFICATION OF CONTRACT/ORDER NO. DE-NA0003624
			10B. DATED (SEE ITEM 13) 05/12/2017

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Section 3610 of the CARES Act and Administrative Changes pursuant to FAR 43.103 (b).

E. IMPORTANT: Contractor is not is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this administrative modification is to update the CARES ACT and make corrections in roles and responsibilities as noted in the revised documents. There is no adjustment in the contract price or performance time by reason of this modification. There is no adjustment to funds previously reserved by reason of this change. Continued on the following pages and attachments.

Payment:

Period of Performance: 06/07/2017 to 11/30/2022

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Tia B. Scott	
15B. CONTRACTOR/OFFEROR <i>(Signature of person authorized to sign)</i>	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA <i>Tia Scott</i> <i>(Signature of Contracting Officer)</i>	16C. DATE SIGNED 07/21/2021

Previous edition unusable

1. The purpose of modification is to make Administrative changes resulting in updating section 3610 (CARES ACT), corrections in the roles and responsibility of the CO and COR, as well as corrections from invoice to draw down.
2. Modifications to the original 138 kV contract documents are memorialized by red text for additions. Removed content is documented with a strike out through the text. In addition, it's flagged with a line in the left margin.
3. It is expressly understood that the Government has no obligation to provide funds in addition to those reserved in writing. No other changes are made as a result of this modification. All other terms and conditions remain unchanged.
4. The DE-NA0003624 138 kV PTSR contract and attachment replacement pages found herein are identified as follows:

Replace with Attached Revised Pages	Pg No.
Continuation Page – Rev No. 1	3
Appendix O, Statement of Work/Terms & Conditions -- Rev No. 1 (Sections 3.4.1.5; 3.4.2; 3.4.3)	20-21
Appendix O, -- Rev No. 1 (Section 3.6.8)	24
Appendix O, -- Rev No. 1 (Part I-Section H-29)	26
Appendix O, -- Rev No. 1 (Part I-Section H-33)	28
Supporting Document (SD) - b. 138-K-2 Master 1-23-2020 -- Rev No. 1 (Sheet DOE O 413.3B CD 2-3 Reqt)	Sheet DOE O 413.3B CD 2-3 Reqt
SD - c. 01 91 00 COMMISSIONING Master -- Rev No. 1 (Sections 1.5.2 & 1.6)	10-11
-- Rev No. 1 (Sections 3.5 & 3.6)	22
-- Rev No. 1 (Sections 3.14 & 3.15.2)	29
SD - d. 01 78 00 CLOSEOUT SUBMITTALS Master 20200123 -- Rev No. 1 (Section 1.4.1.2)	4
-- Rev No. 1 (Sections 1.6; 1.6.2; 1.6.3; 1.8; 1.11.1;)	7-11
SD - f. 01 57 23 TEMP STORM WATER POLLUTION CONTROL Master 20200123 -- Rev No. 1 (Section 1.4.2)	6
SD - g. 01 57 20 ENVIRONMENTAL PROTECTION Master 20200123 -- Rev No. 1 (Section 1.13)	14
-- Rev No. 1 (Sections 3.3.3; 3.4.5; 3.4.6)	17-18
SD - i. 01 45 00 QUALITY CONTROL Master 20200128 -- Rev No. 1 (Sections 3.1 & 3.2.3)	3-4
-- Rev No. 1 (Sections 3.7.1; 3.8.3)	7-8
SD - j. 01 35 40 ENVIRONMENTAL MANAGEMENT Master 20200123 -- Rev No. 1 (Sections 1.4 & 1.8)	4-5
-- Rev No. 1 (Sections 1.8.1; 2.1.2; 3.1; 3.1.3)	8-10
SD - l. 01 33 00 SUBMITTAL PROCEDURES Master 20200128 -- Rev No. 1 (Sections 1.4; 1.5.1; 1.6.1)	8
-- Rev No. 1 (Section 1.8)	14
-- Rev No. 1 (Section 1.12)	19
-- Rev No. 1 (Section 1.15)	21
SD - m. 01 32 01 PROJECT SCHEDULE - Master R-1 20200122 -- Rev No. 1 (Sections 1.4 & 3.1.1)	6
-- Rev No. 1 (Section 3.1.3)	7
-- Rev No. 1 (Sections 3.3.3 & 3.4.3)	14-16
-- Rev No. 1 (Sections 3.5.1.2; 3.5.2; 3.5.3; 3.6.3; 3.6.4)	18-20
SD - n. 01 30 00 ADMINISTRATIVE REQUIREMENTS-Master 20200123— Rev No. 1 (Section 1.8)	7
-- Rev No. 1 (Section 3.5.1.2)	14

SECTION G: CONTRACT ADMINISTRATION DATA, is modified as follows:

G-1 GOVERNMENT CONTACTS AND PROCEDURES, is revised as follows:

Paragraph (e) (3)(I) and (3)(II) are deleted and replaced with the following

(3)(I) For CLIN 0003: The ACO may be contacted at:

Tia Scott
Contracting Officer
1000 Independence Ave, SW
Washington, DC 20585
Email: tia.scott@nnsa.doe.gov
Phone: (202) 586-5337; **Cell: (204) 686-9998**

(3)(II) For SubCLIN 0003A: The ACO may be contacted at:

Cristina Hayden
Contract Specialist
Nevada Field Office
232 Energy Way North Las Vegas, NV 89030
Email: cristina.hayden@nnsa.doe.gov
Ph: (702) 295-2060; **Cell: (240) 654-2207**

SECTION H: SPECIAL CONTRACT REQUIREMENTS

Section H clauses numbers H-28 thru H-35 are being used for Sub CLIN 0003A 138kV project. Clauses are listed in Appendix O pages 26-29. Specific Section I clauses to 138KV project are also located in Appendix O pages 30-32.

PART III – LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS, SECTION J, LIST OF APPENDICES – TABLE OF CONTENTS, is revised to add Appendix O and related Exhibits as follows:

Appendix O SubCLIN 0003A, Statement of Work/Terms and Conditions – Revision (Rev) No. 1

Appendix O EXHIBITS

1. Wage Determination NV2020000110.09.2020
2. Supporting Documents
 - a. 138kV PTSR RFP DB Pricing Sheet Master
 - b. 138-K-2 Master I-23-2020 – **Rev No. 1**
 - c. 01 91 00 Commissioning Master – **Rev No. 1**
 - d. 01 78 00 Closeout Submittals Master 20200123 – **Rev No. 1**
 - e. 01 74 19 Construction and Demolition Waste Master 20200123
 - f. 01 57 23 Temp Storm Water Pollution Control Master 20200123– **Rev No. 1**
 - g. 01 57 20 Environmental Protection Master 20200123– **Rev No. 1**
 - h. 01 45 35 Special Inspections Master 20200128
 - i. 01 45 00 Quality Control Master 20200128– **Rev No. 1**
 - j. 01 35 40 Environmental Management Master 20200123– **Rev No. 1**
 - k. 01 35 26 Governmental Safety Requirements Master 20200123
 - l. 01 33 00 Submittal Procedures Master 20200128– **Rev No. 1**
 - m. 01 3201 Project Schedule Mater R-1 20200123– **Rev No. 1**
 - n. 01 30 00 Administrative Requirements Master 20200123– **Rev No. 1**
 - o. 01 20 00 Price and Payment Procedures Master 20200123
 - p. 01 15 00 Acronyms Abbreviations and Definitions Master
 - q. 01 11 00 Summary of Work Master R-1 20200122
3. Specs & Drawings
4. Submittal Forms & Register

Contract DE-NA0003624, Section J, Appendix O
CLIN 0003 CAPITAL ASSET PROJECTS
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explanation of the exception. The DOR shall record all actions in response to all comments. Provide the comments at the review conference.

3.4.1.5 Comment Actions: If any comments change the scope of services required, identify such to the CO for resolution. Upon resolution, any modifications to the design shall become an integral part of the project requirements identified in this SOW. If a submittal contains numerous errors or deficiencies, and/or does not meet the specified requirements, the DOR shall re-submit corrected copies of the submittal. Each submittal must receive concurrence from the **COR** before proceeding to the next submittal point.

3.4.2 Preliminary Design Submittal (60%)

The Contractor shall submit a preliminary design submittal in accordance with MSTS OP-ENGR.009 and contains the minimum requirements indicated in the 138 kV Submission Requirements Matrix.

Specification submissions shall show changes to the master by using the "Track Changes" function.

Each progressive design submittal should build upon the previous information to provide a clear basis of design development and design philosophy fitting to the project.

The Contractor shall submit minutes of meetings within 5 working days of completion of meeting to project stakeholders.

The Contractor may commence construction on temporary features after the 60% Design Review submittal and meetings are complete. And all technical submittals, permits and requirements must be accepted and approved for the related temporary work. The Contracting Officer **Representative** will provide written notification to the Contractor acknowledging the requested work on temporary construction features.

Any Contractor errors or omissions to the design that require changes or amendments will be at no cost to the Government.

3.4.3 Design Development Submittal (90%)

The Contractor shall submit a design submittal that incorporates the responses to the preliminary design submittal review comments and design refinements to the preliminary design submittal. The design development submittal shall be at the 90+% completion level and in accordance with MSTS OP-ENGR.009 and contains the minimum requirements as indicated in the 138 kV Submission Requirements Matrix leaving only reviewer comments to be addressed at the final design submittal.

All value engineering shall be completed by the end of this phase, and no functional changes are anticipated after the design development review. Submissions shall show

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changes to master by using "Track Changes" function. Each submission shall indicate changes from previous submission, not all changes to master.

The Contractor shall submit minutes of all meetings within 5 working days of completion to project stakeholders.

Construction may commence after the review and acceptance of the submittal is complete and receiving written notification from the ~~Contracting Officer and/or~~ COR. Any work performed without notification from the Government will be at the sole risk of the Contractor.

3.4.4 Final Design / Issue for Construction Submittal

The Contractor shall submit a Completed Final Design Submittal of the design that incorporates the responses to the Design Development Submittal review comments. The completed final design submittal should include comprehensive drawings, specifications, design analysis, in accordance with MSTS OP-ENGR.009 procedure and the 138 kV Submission Requirements Matrix. The completed final design submittal shall be sealed by the DORs in accordance with State and Governmental rules and regulations. The purpose of the construction document phase is to add the level of detail required for construction of the project, coordinate the trades, and finalize the project's documentation for construction. Once the IFC design has been issued and accepted by the Contractor, the Government will be provided the IFC design in ten (10) working days.

3.5 Post Design Phase

The Contractor shall provide post design services as necessary during construction to include design changes due to field conditions for the 138 kV PTSR project at National Nuclear Security Site (NNSS), Mercury, Nevada. Post design services include but are not limited to:

3.5.1 Submittal Support

Provide verification, review and approve of construction related documents including, shop drawings, samples, diagrams, layouts, conceptual, descriptive literature, illustrations, performance and test data, and similar materials furnished by the construction contractor to ensure compliance and conformance with design documents.

3.5.2 Red Line Review

The contractor shall ensure the DOR reviews the contractor's as-built red line drawings monthly.

Upon completion of the project, Contractor will submit to the Government within thirty (30) working days a complete set of the as-built drawings

3.6 Construction Phase

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system install for compliance at a minimum of three (3) times during construction and be on site during all system testing.

The Contractor shall coordinate all activities associated with the testing and commission of the system with stake holders and agencies having jurisdictions. The Contractor shall notify stakeholders a minimum of 30 calendars prior to commencing any testing and commissioning. In addition, the Contractor shall notify stakeholders 7 calendar days and 48 hours prior to testing and commissioning to ensure there are no interferences with site operations.

The Cx firm shall prepare and submit to the Government a draft and final Commissioning Report documenting the Cx process, observations, testing procedures, testing results and concurrences that the system is ready for turnover and operation.

3.6.7 Demolition

The Contractor shall not commence demolition of operational systems until the new system is complete, tested and turned over for operations under CLIN 0001 of the current M&O contract and in accordance with the Demolition Plan.

3.6.8 As-Builts

The Contractor shall prepare and submit as-built drawings, signed and sealed, CADD drawings in accordance with contract requirements. As-built drawings shall fully reflect the final, completed, as- built condition, inclusive of works completed by others in support of the project and verified by the Contractor. The Contractor shall survey the installed utilities to verify the actual placement and include information on the CADD as-built drawings.

The Contractor shall prepare and submit as-built specifications, signed and sealed. As-built specifications shall fully reflect the final, completed, as-built condition, inclusive of works completed by others in support of the project and verified by the Contractor. The Contractor shall submit electronic files to the Contracting Officer **and COR** with as-Built specifications (with tracked changes) and original marked up as-built specifications (hard copies).

The Contractor shall prepare and submit as-built construction-phase submittals. As-built construction-phase submittals shall fully reflect the final, completed, as-built condition. Changes from such submittals shall be documented in the Construction Submittal Log. The Contractor shall keep a current set of prints with "Red Lines" on site at all times noting any deviations or clarifications generated by DOR supplemental instructions and RFI responses. Before completion of construction, the Contractor shall provide the DOR with Red Lines maintained in the field.

3.6.9 Environmental, Biological & SHIPO Mitigations

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PART I – SECTION H, SPECIAL CONTRACT REQUIREMENTS

All Special Contract Requirements in Section H of the contract shall apply to the sub-line item 0003A. In addition, special contract requirements below shall be applicable only to SubCLIN 0003A.

H-28 DIFFERING SITE CONDITIONS

FAR Clause 52.236-2 (Differing Site Conditions (APR 1984)), differing site conditions include, but are not limited to, the following types of circumstances:

- Discovery of historical, archeological, or human remains which are subject to preservation/treatment in accordance with federal, state, or local laws, regulations or policies
- Discovery of habitats for species protected under federal, state, or local laws, regulations, or policies
- Discovery of radioactive material
- Discovery of toxic or hazardous materials
- Discovery of unexploded ordnance/explosives

H-29 AVAILABILITY OF UTILITIES

The Contractor may directly utilize, and may allow its subcontractor(s) to utilize government-furnished utilities and similar services (including but not limited to: water, sewer, electricity, telephone, internet, trash, and waste disposal, etc.) to the extent utilities and other similar services are available and accessible for use at the NNSS. There shall be no charge to the Contractor or Subcontractor for the use of government-furnished utilities or other similar services.

Where the utility is produced by the Government, the contractor shall carefully conserve utilities usage. The Contractor, at its expense and in a workmanlike manner satisfactory to the Contracting Officer **Representative**, shall install and maintain all necessary temporary connections and distribution lines. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

H-30 FORCE MAJEURE

Notwithstanding anything to the contrary contained herein, to benefit of this provision the contractor shall, as soon as reasonably practicable after the occurrence of any such event, (a) provide written notice to the Contracting Officer of the nature and extent of any such Force Majeure condition and (b) use commercially reasonable efforts to remove any such causes and resume performance

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additional profit) will treat--for the purpose of beginning negotiations--as allowable (if otherwise allowable per federal regulations) the incurred or estimated costs of paid leave (including sick leave) the Contractor or its subcontractors provide to keep employees in a ready state if--

(1) The employees: cannot perform work on a site approved by the Federal Government (including a federally-owned or leased facility or site) due to facilities closures or other restrictions; and cannot telework because their job duties cannot be performed remotely during the public health emergency declared on January 31, 2020 for COVID-19.

(2) The costs were incurred or will be incurred from January 31, 2020 through ~~December 11, 2020~~ **September 30, 2021**.

(3) The costs do not reflect any amount exceeding an average of 40 hours per week for paid leave.

(b) Where other relief provided for by the CARES Act or any other Act would benefit the contractor or the contractor's subcontractors, including, but not limited to, funds available under sections 1102 and 1106 of the CARES Act, the contractor should evaluate applicability of such benefits in seeking reimbursement under the contract.

(c) The Contractor must represent in any request for reimbursement--

(1) Either: it has not received, has not claimed, and will not claim any other reimbursement for federal funds available under the CARES Act for the same purpose, including, but not limited to, funds available under sections 1102 and 1106 of the CARES Act; or if it has received, claimed, or will claim other reimbursement, that reimbursement or an estimate of it has been reflected in the request for equitable adjustment.

(2) Its request reflects all applicable credits (estimated if necessary), including

- (i) Tax credits, including credits allowed pursuant to division G of Public Law 116-127; and
- (ii) Applicable credits allowed under the CARES Act, including applicable credits for loan guarantees.

(d) The Government's treating--for the purpose of beginning negotiations--the costs as allowable, does not mean the Government--in determining the amount of the equitable adjustment is fair and reasonable--will agree to the Contactor's proposed adjustment to the price or to the hourly rates and materials costs.

H-34 ORDER OF PRECEDENCE

All clauses in the M&O Contract, including Special Contract Requirements in Section H of the Contract, shall apply to the sub-line item SubCLIN 0003A to the extent relevant. In addition, the special contract requirements specified in this Contract modification below shall be applicable only to SubCLIN 0003A. To the extent there are conflicts between the other M&O clauses/requirements

DESIGNER OF RECORD SUBMISSION REQUIREMENTS FOR 138-Kv PTRS DESIGN PACKAGE (includes CD 2/3 documents required for CD 2/3 DOE/NNSA ESAAB-E Approval, refer to DOE O 413.3B CD 2/3 Requirements) NNSA MECURY, NV				Submit	Pending	N/A	Comments
Seq. No.	Type	Topic	Description	SD1 - PRELIMINARY 60%	SD2 - DESIGN DEV 90%	SD - Final - Issue For Construction 100%	Submital Checklist
PROJECT NAME 138-KV PTRS Design Services			PROJECT NUMBER 19-D-670	EFFECTIVE DATE OF SPREADSHEET 31-Jan-20			
	Document		Updated Acquisition Strategy	U	F		Must apply governing NNSA Business Operating Procedures and NNSA templates to satisfy DOE O 413.3B.
	Document		Performance Baseline	U	U		

DESIGNER OF RECORD SUBMISSION REQUIREMENTS FOR 138-Kv PTRS DESIGN PACKAGE (includes CD 2/3 documents required for CD 2/3 DOE/NNSA ESAAB-E Approval, refer to DOE O 413.3B CD 2/3 Requirements)										
NNSA MECCURY, NV										
PROJECT NAME										
PROJECT NUMBER										
EFFECTIVE DATE OF SPREADSHEET										
138-KV PTRS Design Services										
19-D-670										
31-Jan-20										
Seq. No.	Type	Topic	Description	SD1 - PRELIMINARY 60%	SD2 - DESIGN DEV 90%	SD - Final - Issue For Construction 100%	Submitte	Pending	N/A	Comments
	Document		CD-2/3 Requirements							
	Document		Updated Project Execution Plan							
	Document		Refer to DOE G 413.3.15. Key elements of a PEP are provided in DOE G 413.3-15. The PEP is the core document for the management of a project and establishes the policies and procedures to be followed in order to manage and control project planning, initiation, definition, execution and transition/closeout, and uses the outcomes and outputs from all project planning processes, integrating them into a formally approved document. It includes an accurate reflection of how the project is to be accomplished, the minimum KPPs for CD-4, resource requirements, technical considerations, risk management, configuration management, and roles and responsibilities. A preliminary PEP is required to support CD-1. This document continues to be refined throughout the duration of a project and revisions are documented through the configuration management process. Must apply governing NNSA Business Operating Procedures and NNSA templates to satisfy DOE O 413.3B.	U	U	F				Must apply governing NNSA Business Operating Procedures and NNSA templates to satisfy DOE O 413.3B.
	Document		Funding Profile	U	U	F				
	Document		Long-Lead Item Procurements, if necessary	U	U	F				
			Project Management Plan	U	U	F				
	Support Services		Support all Project Reviews							

DESIGNER OF RECORD SUBMISSION REQUIREMENTS FOR 138-Kv PTRS DESIGN PACKAGE (includes CD 2/3 documents required for CD 2/3 DOE/NNSA ESAAB-E Approval, refer to DOE O 413.3B CD 2/3 Requirements)		NNSA MEUCURY, NV		PROJECT NUMBER 19-D-670		EFFECTIVE DATE OF SPREADSHEET 31-Jan-20		Submittal Checklist	
Seq. No.	Type	Topic	Description	SD1 - PRELIMINARY 60%	SD2 - DESIGN DEV 90%	SD - Final - Issue For Construction 100%	Submittal	Pending	Comments
CD-2/3 Requirements									
			Preliminary Design Report						
	Document			U	F				
	Document		Prepare a Hazard Analysis Report for facilities that are below the Hazard Category 3 nuclear facility threshold as defined in 10 CFR Part 830, Subpart B by updating the PHAR based on new hazards and design information.	U	U	F			
	Document		Hazard Analysis Report	U	U	F			
	Document		Determine that the Quality Assurance Program is acceptable and continues to apply. (Refer to 10 CFR Part 830, Subpart A, DOE O 414.1D, and DOE G 413.3-2.)	U	U	F			
	Document		Quality Assurance Program	U	U	F			
	Document		Conduct a Preliminary Security Vulnerability Assessment, if necessary. (Refer to DOE O 470.4B, Change 1, and DOE G 413.3-3A.)	U	U	F			
	Document		Preliminary Security Vulnerability Assessment	U	U	F			
	Document		Issue the final Environmental Impact Statement or Environmental Assessment and Finding of No Significant Impact, as required by 10 CFR Part 1021. For an Environmental Impact Statement, the appropriate authority shall issue the Record of Decision after CD-2 is granted, but prior to CD-3 approval. (Refer to DOE O 451.1B.)	U	U	F			
	Document		NEPA Documentation	U	U	F			
	Document		Update Project Data Sheet, or other funding documents for project, and A-11 Business Case, if applicable. (Refer to DOE CFO Budget Call for PDS and Business Case Template.)	U	U	F			
	Document		Update Project Data Sheet, or other funding documents	U	U	F			
	Document		Update Commissioning Plan	U	U	F			
Prior to CD-3									
	Document		Update Hazard Analysis Report		U	F			
	Document		Update the Hazard Analysis Report for facilities that are below the Hazard Category 3 nuclear facility threshold as defined in 10 CFR Part 830, Subpart B, based on new hazards and design information.		U	F			
	Document		Prior to start of construction, prepare a Construction Project Safety and Health Plan4 in accordance with 10 CFR Part 851, Appendix A, Section 1(d). This plan must be kept current during construction.	U	F				
	Document		Construction Project Safety and Health Plan	U	F				
	Document		Update the Quality Assurance Program for construction, field design changes, and procurement activities. (Refer to 10 CFR Part 830, Subpart A, DOE O 414.1D, and DOE G 413.3-2.)	U	F				
	Document		Update the Quality Assurance Program for construction	U	F				
	Document		Finalize the Security Vulnerability Assessment Report, if necessary. (Refer to DOE O 470.4B and DOE G 413.3-3A.)	U	U	F			
	Document		Security Vulnerability Assessment Report	U	U	F			
Post CD-3 (Prior to Construction)									
	Document		Submit Lessons Learned						
	Document		Within 60 day, submit Lessons Learned regarding up-front planning and design						

In case of hill terrain, the benching area should be leveled properly. The area around pole/tower shall have proper slope for drainage of rain water.

1.5 ADMINISTRATIVE REQUIREMENTS

Perform commissioning services for the system. Expedite the testing process and minimize unnecessary delays, while not compromising the integrity of the procedures. The commissioning requires cooperation of the construction Contractor, tier Subcontractors, vendors, Engineer, Commissioning Authority, and Contracting Officer.

1.5.1 Coordination

The commissioning team comprises the following groups:

- a. The construction Contractor's Project Manger
- b. The construction Contractor's QC Manager and Test Engineer(s)
- c. The construction Contractor's Commissioning Coordinator
- d. Tier Subcontractor(s) and factory representative(s) for the system being commissioned
- e. The Contracting Officer's Representative
- f. Engineer and Specialty Consultant(s)
- h. NNSA Facilities Manager and site stakeholders

1.5.2 Progress Meetings

Plan and coordinate meetings as required, either in conjunction with normally scheduled progress meetings or separate commissioning-focused meetings to review the commissioning progress of the Work. Notify the Government's CxA and the Contracting Officer **Representative** of construction job-site meetings to address coordination, deficiency resolution, and planning issues.

1.5.3 Functional Testing Coordination

Do **not** "temporarily" start equipment for commissioning. Do not conduct functional performance testing until a pre-functional, start-up and TAB is completed for a given system. Do not functionally test the controls system and equipment it controls

until all points have been calibrated and the pre-functional checklists are completed.

1.6 CONTRACTOR'S COMMISSIONING COORDINATOR QUALIFICATIONS

The construction Contractor shall provide a Commissioning Coordinator for overall coordination with the Government's CxA and management of the Contractor's Commissioning Execution Plan. The Contractor shall engage commissioning service personnel, which specialize in the types of inspections and tests to be performed. The contractor's Commissioning Coordinator shall be directly retained by the construction Contractor; employee(s) of the construction Contractor's tier Subcontractors or vendors will not be acceptable as the construction Contractor's Commissioning Coordinator. Both the firm and the individual designated as the contractor's Commissioning Coordinator, shall be certified by at least one of the following entities: the National Environmental Balancing Bureau (NEBB), the Association of Energy Engineers (AEE), and the Building Commissioning Association (BCA). Certification(s) shall be valid and active. Proof of certification(s) shall be submitted to the Contracting Officer **Representative** fourteen (14) calendar days after the Notice to Proceed.

2 PART 2 PRODUCTS

2.1 TEST EQUIPMENT

The construction Contractor shall ensure instrumentation used for testing meets the following standards:

- a. Sufficient quality and accuracy to test and measure system performance within the tolerances required to determine adequate performance.
- b. Calibrated on the manufacturer's recommended intervals with calibration tags permanently affixed to the instrument being used.
- c. Maintained in good repair and operating condition throughout the duration of use on this project.

Provide all standard testing equipment required for performing startup and initial checkout and required functional performance testing for the system. Data logging equipment or software required to test equipment shall also be provided as needed, and not become the property of the Government.

Submit completed Pre-functional Testing Checklists to the Government CxA for review and verification prior to submittal to the Contracting Officer **Representative**.

Submit a written report stating corrective actions taken to achieve startup and certify that equipment or system has been properly installed and is functioning correctly. Also state any observation, site decisions or instructions given to current M&O personnel that are supplemental or contrary to manufacturers written instructions. Submit this report within fourteen (14) calendar days after start-up.

3.6 FUNCTIONAL PERFORMANCE TESTING

Perform system test procedures including all steps required for each test. Provide appropriate documents so that another party can repeat the tests with virtually identical results. Submit completed Functional Testing Checklists to the Government for review prior to submittal to the Contracting Officer **Representative**, verifying conformance with the following standards:

3.6.1 Test Methods

Methods for functional performance testing and verification shall be in accordance with best practices of industry standards prepared by the Design or Record, the contractor and Government. The CxA determines which method, or combination of methods, is most appropriate.

3.6.2 Setup

Perform each test procedure under conditions that simulate normal operating conditions as closely as possible. Where equipment requires integral safety devices to stop/prevent equipment operation unless minimum safety standards or conditions are met, have functional performance test procedures demonstrate the actual performance of safety shutoffs in a real or closely-simulated conditions of failure.

3.6.3 Functional Performance Testing Results

Coordinate, observe and record the results of the functional performance testing. Coordinate retesting as necessary until satisfactory performance is verified. Verify the intended operation of individual components and system interactions under various conditions and modes of operation.

observations from inspections and other measurements will constitute the test records.

3.14 FINAL COMMISSIONING REPORT

The construction Contractor shall compile and submit a Final Commissioning Report to the current M&O for review prior to submittal to the Contracting Officer **Representative**.

Summarize all of the tasks, findings, conclusions, and recommendations of the commissioning process.

3.15 DEFERRED TESTING

3.15.1 Deferred Tests

Schedule, coordinate, observe, and document additional testing for seasonal variation in operations and control strategies during the opposite season to verify performance of the system and controls. Complete testing during the warranty period to fully test all sequences of operation.

3.15.2 End-of-Warranty Review

Conduct end of warranty review prior to the end of the warranty period. Review the current building operation with the facility maintenance staff. Include in the review all outstanding issues from original or seasonal testing. Interview facility staff to identify concerns with building operation. Provide suggestions for improvements and assist Contracting Officer **Representative** in developing reports or documentation to remedy problems.

Update O&M manuals and Record Documents as necessary due to the testing.

-- End of Section --

1.4 PROJECT RECORD DOCUMENTS

1.4.1 Working As-Built (Redline) Drawings and Specifications

The Contractor shall prepare and maintain on the construction site or location designated as the "contractor site trailer" drawings and specifications showing as-built conditions of the project to be referred to as Working As-Built or Redline Drawings. These drawings are a specific and distinct element of Work under this Contract. Failure to maintain and deliver these drawings will be treated by the Government in a manner similar to the failure to provide a specified item of construction material or equipment.

The Working As-Built Drawings shall be a record of the construction as installed and completed by the Contractor. They shall include the information shown on the Contract drawings and a record of deviations, modifications, or changes from those drawings, however minor, which were incorporated into the Work, additional Work not appearing on the Contract drawings, and changes which are made after final inspection of the Work.

1.4.1.1 GIS Requirements

The Contractor shall provide the elevation inverts of gravity systems, duct banks, and utilities for existing elements to remain and new elements within the project limits. The information shall include the bottom of pole elevations and top elevation of poles to be cut below grade and abandoned in place. The information shall include horizontal location by coordinate, along with a description of the element. The information shall be provided as a list or on the Working As-Built Drawings.

1.4.1.2 Working As-Built Drawings and Specifications Content

The Contractor shall maintain one (1) prime workings set and one (1) spare set of paper drawings and specifications by red-line process to show the as-built conditions during the execution of the project. These drawings and specifications shall always be kept current on a weekly basis and at least one set available on the jobsite. Changes from the Contract drawings and/or specifications which are made in the Work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded using red ink as they occur by means of details and notes.

The Working As-Built Drawings and Specifications will be jointly reviewed for accuracy and completeness by the Contracting Officer **Representative** and the Contractor prior to submission of each monthly ~~invoice~~ **draw down**. If the Contractor fails to maintain the drawings and specifications as specified herein, the Contracting Officer **Representative** will consider the monthly ~~invoice~~ **draw down** incomplete, and may deduct from the monthly progress payment an amount representing the estimated cost of maintaining the record drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer **Representative** and the Contractor regarding the accuracy and completeness of updated drawings.

The Working As-Built Drawings and specifications shall show the following information, but not limited to:

- a. The actual location, kinds and sizes of all sub-surface utility lines or other installations of any kind or description known to exist within

content. The following exemptions may apply to the non-procurement of recycled/recovered content materials: 1) The product does not meet appropriate performance standards; 2) The product is not available within a reasonable time frame; 3) The product is not available competitively (from two or more sources); 4) The product is only available at an unreasonable price (compared with a comparable non-recycled content product)."

Record each product used in the project that has a requirement or option of containing recycled content in accordance with Section 01 74 19 CONSTRUCTION AND DEMOLITION WASTE noting total price, total value of post-industrial recycled content, total value of post-consumer recycled content, exemptions (1, 2, 3, or 4, as indicated), and comments. Recycled content values may be determined by weight or volume percent, but must be consistent throughout.

1.6 WARRANTY MANAGEMENT

Warranty information made available during construction must be submitted to the Contracting Officer **Representative** for approval prior to each monthly ~~invoice~~ **draw down**. Assemble approved information in a binder and turn over to the Government not later than fourteen (14) calendar days prior to Beneficial Occupancy Date.

1.6.1 Warranty Management Plan

Develop a Warranty Management Plan that contains information relevant to the FAR 52.246-21 Warranty of Construction. At least **thirty (30)** calendar days before the planned Pre-Warranty Conference herein, submit **two (2) sets** of the Warranty Management Plan. Include within the Warranty Management Plan all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan must be in narrative form and contain enough detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this Contract. The term "status" as indicated below must include due date and whether item has been submitted or was accomplished.

The construction warranty period will begin on the Beneficial Occupancy Date and continue for the full product warranty period. A joint three (3) month and six (6) month and one (1) year warranty inspection will be conducted, measured from time of Beneficial Occupancy.] Include within the Warranty Management Plan, but not limited to, the following:

- a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, Subcontractors, manufacturers or suppliers involved.
- b. Furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.
- c. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.

- d. If applicable: A list for each warranted equipment, item, feature of construction, or system indicating:
- (1) Name of item.
 - (2) Model and serial numbers.
 - (3) Location where installed.
 - (4) Name and phone numbers of manufacturers or suppliers.
 - (5) Names, addresses, and telephone numbers of sources of spare parts.
 - (6) Warranties and terms of warranty. Include one-year overall warranty of construction, including the starting date of warranty of construction. Items which have extended warranties must be indicated with separate warranty expiration dates.
 - (7) Starting point and duration of warranty period.
 - (8) Cross-reference to warranty certificates as applicable.
 - (9) Summary of maintenance procedures required to continue the warranty in force.
 - (10) Cross-reference to specific pertinent Operation and Maintenance manuals.
 - (11) Organization, names, and phone numbers of persons to call for warranty service.
 - (12) Typical response time and repair time expected for various warranted equipment.
- e. Procedure and status of tagging of all equipment covered by extended warranties.
- f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.6.2 Pre-Warranty Conference

Prior to contract completion sixty (60) calendar days prior to the Beneficial Occupancy Date, and at a time designated by the Contracting Officer **Representative**, the Contractor shall meet with the Contracting Officer **Representative** to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer **Representative** for the execution of the construction warranty will be established and reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, furnish the name, telephone number, and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the

local service area of the warranted construction, be continuously available, and be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.6.3 Warranty Tags

At the time of installation, tag each warranted piece of equipment in accordance with NNSA site requirements and procedures. In the event a physical tag is not required the contractor shall submit a paper a document to the current M&O and the Contracting Officer **Representative**. The Warranty paper shall include the following:

Type of product/material	
Model number	
Serial number	
Contract number	
Warranty period from/to	
Inspector's signature	
Construction Contractor	
Address	
Telephone number	
Warranty contact	
Address	
Telephone number	
Warranty response time priority code	
WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.	

1.7 OPERATION AND MAINTENANCE MANUALS

All Contract requirements for Operation and Maintenance Manuals and data, including all reviews and approvals, shall be completed prior to Contract Completion. See Section 01 78 23 OPERATION AND MAINTENANCE DATA for complete O&M Manual and data requirements.

1.8 DEMONSTRATION, TRAINING, AND INSTRUCTION

Formal classroom and on-site training shall be provided with a Training Plan or syllabus of instruction to be submitted for approval thirty (30) calendar days in advance of scheduled training. Training shall be scheduled at least two (2) weeks prior to the Beneficial Occupancy Date. Training material shall be provided to each employee attending the training with a roster of who attended submitted to the Contracting Officer **Representative**. These services must be directed by the Contractor, using the manufacturer's factory-trained personnel or qualified representatives.

The Contractor shall videotape all formal classroom and on-site instruction training sessions. The Contractor shall provide equipment, material and trained personnel to record the sessions using audio-video recording format. Upon completion of the training instructions, the recordings shall become the property of the Government. The recordings shall be identified, indexed, and placed in appropriate approved storage containers for submittal to the Contracting Officer **Representative**.

1.8.1 Training Content

The Contractor shall utilize Operation and Maintenance Manuals as the basis for instruction. Training content shall include, but not limited to the following:

- a. Review contents of each manual in detail to explain all aspects of operation and maintenance to Government and O&M personnel. Prepare and insert additional data into Operation and Maintenance Manuals when additional data becomes apparent during instruction. Manuals are to be supplemented with troubleshooting and repair data when absent from normal O&M submission.
- b. Review record documentation, tools, spare parts and materials, special tools, lubricants, fuels, identification systems, control sequences, trouble-shooting, repairing, hazards, cleaning and similar procedures and facilities.
- c. For operational equipment, demonstrate start-up, shutdown, emergency operations and procedures, noise and vibration adjustments, safety, economy/efficiency adjustments, and similar operations.
- d. For equipment or systems requiring seasonal operation or maintenance, perform demonstration for all other seasons.
- e. Review maintenance and operations in relation with applicable warranties and similar continuing commitments.

1.9 CLEANUP

The Contractor shall perform final cleaning immediately before Beneficial Occupancy and maintain clean conditions until Statement of Final Acceptance. Provide final cleaning in accordance with ASTM E1971 for all facilities being returned to the government or vacated by the project team.

1.10 REAL PROPERTY RECORD

Near the completion of project, but a minimum of thirty (30) days prior to Final Acceptance of the Work, complete and submit an accounting of all installed property, in accordance with NNSA requirements.

1.11 BENEFICIAL OCCUPANCY AND FINAL ACCEPTANCE

1.11.1 Beneficial Occupancy

The Contractor shall notify the Contracting Officer ~~or~~ his and the **Contracting Officer Representative**, in writing, when the Work associated with this Contract is ready for acceptance. The request shall include confirmation of the following items:

- a. Training has been completed.
- b. Commissioning documentation has been reviewed and approved.
- c. Final Operation and Maintenance Manuals have been reviewed and approved.
- d. Final Cleaning has been completed.
- e. Submission of all warranties and associated documentation, performance bond, maintenance service agreements, final certifications, and other similar documentation affecting systems/equipment installed under this Contract.
- f. Submission of all final reporting associated with various specifications including, 01 57 20 ENVIRONMENTAL PROTECTION, 01 57 23 TEMPORARY STORM WATER POLLUTION CONTROL, 01 74 19 CONSTRUCTION AND DEMOLITION WASTE, 01 78 23 OPERATION AND MAINTENANCE DATA and 01 91 00 COMMISSIONING.
- g. Removal of all temporary facilities from the site.
- h. Submission releases permitting Government's unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
- i. Delivery of any special tools, spare parts, extra materials, and similar items to the Government. Label each with the manufacturer's name and model number where applicable.
- j. Complete final changeover of permanent locks and deliver keys to the Government.

The Government will review the Work performed and determine if a preliminary inspection is warranted. If a preliminary inspection is warranted, the Government will organize the joint inspection. All deficiencies and remaining work shall be documented on a Punch List. The Punch List will be forwarded to the Contractor for completion. The Government will inform the Contractor if they must complete all or specific Punch List items in order to obtain approval of Beneficial Occupancy.

The Contracting Officer may elect to accept partial use and possession prior to completion based on the outcome of the preliminary inspection.

1.11.2 Final Acceptance

The Contractor shall notify the Government, in writing, when the:

- a. Punch List has been completed.

- (4) Select applicable best management practices (BMPs) from EPA 832-R-92-005.
- (5) Include a completed copy of the Registration Statement, BMP Inspection Report Template and Notice of Termination except for the effective date.
- (6) Storm Water Pollution Prevention Measures and Notice of Intent 40 CFR 122.26, EPA 832-R-92-005. Provide a "Storm Water Pollution Prevention Plan" (SWPPP) for the project. The SWPPP will meet the requirements of the EPA, State of Nevada and NNSS general permit for storm water discharges from construction sites. Submit the SWPPP along with any required Notice of Intents, Notice of Termination, and appropriate permit fees, via the Contracting Officer **Representative**, to the appropriate agency or agencies for approval, a minimum of fourteen (14) calendar days prior to the start of construction. A copy of the approved SWPPP will be kept at the construction on-site office, and continually updated as regulations require to reflect current site conditions.
- (7) Install, inspect, and maintain best management practices (BMPs) as required by the general permit. Prepare and submit to the current M&O and COR.

1.4.3 Structural Practices

Implement structural practices to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Implement structural practices in a timely manner, during the construction process, to minimize erosion and sediment runoff. Include the following devices; Location and details of installation and construction are shown to be shown on the drawing and species developed by the Designer of Record (DOR).

1.4.4 Vegetation and Mulch

- a. Provide temporary protection on sides and back slopes as soon as rough grading is completed or sufficient soil is exposed to require erosion protection. Protect slopes by accelerated growth of permanent vegetation, temporary vegetation, mulching, or netting. Stabilize slopes by hydro seeding, anchoring mulch in place, covering with anchored netting, sodding, or such combination of these and other methods necessary for effective erosion control.
- b. Seeding: Contact NNSS Biologists and Storm water Pollution Prevention staff for information on the site specific erosion control requirement for areas where the ground is disturbed. Include topsoil or nutriment during the seeding operation necessary to re-establish a suitable natural vegetation.

1.5 DELIVERY, STORAGE, AND HANDLING

Identify, store and handle filter fabric in accordance with ASTM D4873.

materials expected to be used in the construction when requesting information.

1.10 PROTECTION FEATURES

This paragraph supplements the Contract Clause 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any onsite construction activities, the Contractor shall make a condition survey and shall prepare a brief report including a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. This survey report will be signed by both the Contractor and the COR upon mutual agreement as to its accuracy and completeness. The Contractor must protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference that their preservation may cause to the Work under the Contract.

1.11 SPECIAL ENVIRONMENTAL REQUIREMENTS

Contractor shall comply with NNSS rules, regulation and guidelines governing any and all special environment requirements at no additional cost to the Government.

1.12 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations from the drawings, plans and specifications, requested by the Contractor and which may have an environmental impact, will be subject to approval by the COR and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if COR determines that the proposed alternate method will have an adverse environmental impact.

1.13 NOTIFICATION

The Contracting Officer **Representative** will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. After receipt of such notice, the Contractor will inform the Contracting Officer **Representative** of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer **Representative** may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions will be granted, or equitable adjustments allowed for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the Contract, or in accordance with the Federal Acquisition Regulation (FAR) or Federal Law.

2 PART 2 PRODUCTS

NOT USED

3.3.3 Sound and Noise Intrusions

Keep construction activities under surveillance and control to minimize environment damage by noise. Comply with NNS rules, regulations and requirements.

Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives will not be permitted without written permission from the Contracting Officer **Representative**, and then only during the designated times. Confine pile-driving or rock hammering operations to the period between 8 a.m. and 4 p.m., Monday through Friday, exclusive of holidays, unless otherwise specified.

3.3.4 Burning

Burning is prohibited on the Government premises.

3.3.5 Dust Control

Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning non-particulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster.

3.4 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of wastes will be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

3.4.1 Solid Wastes

Place solid wastes (excluding clearing debris) in containers which are emptied on a regular schedule. Handling, storage, and disposal of solid wastes must be conducted to prevent contamination, and in accordance with the Solid Waste Management Plan and Execution requirements of section 01 74 19 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT. Employ segregation measures so that no hazardous or toxic waste will become co-mingled with solid waste. Dispose of solid waste in accordance with NNS rules regulations and requirements pertaining to the use of landfill areas.

3.4.2 Contractor Generated Hazardous Wastes/Excess Hazardous Materials

The contractor is responsible to manage and store hazardous waste in compliance with 40 CFR 262 and the NNS hazardous waste management plan. The Contractor shall take sufficient measures to prevent spillage of hazardous and toxic materials during dispensing. Segregate hazardous waste from other materials and wastes, protect it from the weather by placing it in a safe covered location, and take precautionary measures such as berming or other appropriate measures against accidental spillage. Cleanup and cleanup costs due to spills are the Contractor's responsibility.

3.4.3 Petroleum Products and Refueling

Storage, fueling and lubrication of equipment and motor vehicles must be conducted in a manner that affords the maximum protection against spill and evaporation. Manage and store fuel, lubricants and oil in accordance with 40 CFR 279 and all Federal, State, Regional, and local laws and regulations. Determine if any used oil generated while on-site exhibits a characteristic of hazardous waste. Used oil containing 1000 parts per million of solvents will be considered a hazardous waste and disposed of at Contractor's expense. Used oil mixed with a hazardous waste will also be considered a hazardous waste. Used lubricants and used oil to be discarded must be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site will be in accordance with all Federal, State, and local laws and regulations, and paragraph 3.8.7 below.

3.4.4 Oily and Hazardous Substances

Prevent oil or hazardous substances from entering the ground, drainage areas, or navigable waters. In accordance with 40 CFR 112, surround all temporary fuel oil or petroleum storage tanks with a temporary berm or containment of sufficient size and strength to contain the contents of the tanks, plus ten (10) percent freeboard for precipitation. The berm will be impervious to oil for seventy-two (72) hours and be constructed so that any discharge will not permeate, drain, infiltrate, or otherwise escape before cleanup occurs. Provide general secondary containment for oil transfer operations as required by 40 CFR 112.7.

3.4.5 Discovery of Petroleum Contaminated Soil or Hazardous Wastes

If petroleum contaminated soil or suspected hazardous waste is found during construction that was not identified in the contract documents, the Contractor shall immediately notify the **Contracting Officer Representative** and Contracting Officer. The Contractor shall not disturb this material until authorized by the Contracting Officer.

3.4.6 Fuel Tanks

Petroleum products and lubricants kept on site to sustain construction activity shall be approved in writing by the NNSS Site Manager. A copy of the signed document shall be sent to the Contracting Officer **Representative**. Storage and refilling practices shall comply NNSS rules, regulations and requirements at no additional cost to the government. If NNSS does not allow the storage of petroleum and lubricants on site any and all costs additional cost shall be the responsibility of the Contractor at no additional cost to the Government. Drip pans are required and the tanks must be covered during inclement weather.

3.4.7 Releases/Spills of Oil and Hazardous Substances

Exercise due diligence to prevent, contain, and respond to releases/spills of hazardous material, hazardous substances, hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated by environmental law. In the event of a release/spill, spill response will be in accordance with 40 CFR 300 and applicable state and local regulations. The Contractor shall take immediate and effective action to minimize, stop,

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

Preconstruction Submittals

Contractor Quality Control (CQC) Plan; G

2 PART 2 PRODUCTS

Not Used

3 PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Establish and maintain an effective Quality Control (QC) system in compliance with the Contract quality requirements. QC consists of plans, procedures, and organization necessary to produce an end product which complies with the Contract requirements. Cover all construction operations, both onsite and offsite, and be keyed to the Resource-loaded Project Baseline Schedule. The Contractors QC Manager will be held responsible for the quality of Work and is subject to removal by the Contracting Officer **Representative** for non-compliance with the quality requirements specified in the Contract. In this context the highest level manager responsible for the overall quality of construction activities at the site is the QC Manager. The QC Manager must maintain a physical presence at the site at all times for all work evolutions and is responsible for all construction and related activities at the site, except as otherwise acceptable to the Contracting Officer **Representative**. A contingency or back up coverage for the QC Manager by other trained QC staff may be warranted.

3.2 QUALITY CONTROL PLAN

Submit the Contractor Quality Control (CQC) Plan no later than **fifteen (15)** calendar days after receipt of Notice To Proceed NTP. The contractor shall review any existing NNSS CQC Plans proposed to implement the requirements of the Contract Clause in existing NNSS CQC plans and augment the CQC Plan with the necessary additional requirements to meet the specific needs of this contract. Construction will be permitted to begin only after acceptance of the CQC Plan.

3.2.1 Content of the CQC Plan

In reviewing the existing CQC Plan the Contractor shall ensure the plan include, as a minimum, the following to cover all construction operations, both onsite and offsite, including Work by Subcontractors, offsite fabricators, suppliers, and vendors:

- a. A description of the Quality Control organization, including a chart showing lines of authority and acknowledgment that the CQC staff will

implement the control system for all aspects of the Work specified. Include a CQC System Manager who reports to the Project Manager.

- b. The name, qualifications (in résumé format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the Contractor that describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop Work which is not in compliance with the Contract. Letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities will be issued by the CQC System Manager. Copies of these letters shall be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of Subcontractors, offsite fabricators, suppliers and vendors. These procedures must be in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of Work to be tested, test frequency, and person responsible for each test.
- f. Procedures for tracking, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. Establish verification procedures that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of Work.
- j. Any special inspection requirements as required for the project and necessary for NNSA site acceptance of the operating system.

3.2.2 Acceptance of Plan

Acceptance of the Contractor's CQC Plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in its CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified at no additional cost to the Government.

3.2.3 Notification of Changes

After acceptance of the CQC Plan, notify the Contracting Officer **Representative** in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

update the NNSA requirements for this project. If the existing CQC Plan is not robust the Contractor shall prepare and use at least Three Phases of Control (Preparatory, Initial, and Follow-up Phases) program. The Contractor shall submit CQC Plan to the Government for review and acceptance. Changes required to satisfy the Government shall be made at no additional cost to the project and Government.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to Contract requirements. Upon request, furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. Perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with Contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Record results of all tests taken, both passing and failing on the CQC report for the date taken. Record specification paragraph reference, location where tests were taken, and the sequential control number identifying the test. If approved by the Contracting Officer **Representative**, actual test reports may be submitted later with a reference to the test number and date taken. Provide an information copy of tests performed by an offsite or commercial test facility directly to the COR. Failure to submit timely test reports as stated may result in nonpayment for related Work performed and disapproval of the test facility for this Contract.

3.8 COMPLETION INSPECTION

3.8.1 Punchlist Inspection

The Contractor shall conduct an inspection of the Work by the CQC Manager near the end of the Work or by the specifications. Prepare and include in the CQC documentation a punchlist of items which do not conform to the approved drawings and specifications. Include within the list of deficiencies the estimated date by which the deficiencies will be corrected. Make a second inspection by the CQC System Manager or staff to ascertain that all deficiencies have been corrected. Once this is accomplished, notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government may perform the pre-final inspection to verify that the facility is complete and ready to be used. A Government Pre-Final punchlist may be developed as a result of this inspection. Ensure that all items on this list have been corrected before notifying the Government, so that a final inspection can be scheduled. Correct any items noted on the pre-final inspection in a timely manner. These inspections and any deficiency corrections required must be accomplished within the time slated for completion of the entire Work or any particular increment of the Work if the project is divided into increments by separate completion dates at no additional cost to the government.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the Superintendent or other primary management person, and the Contracting Officer's Representative must be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, Facility Engineer groups, and end-user customer groups may also be in attendance. The final acceptance inspection will be formally scheduled by the COR based upon results of the pre-final inspection. Notify the Contracting Officer **Representative** at least **fifteen (15)** calendar days prior to the final acceptance inspection and include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining Work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all Contract Work acceptably complete for this inspection will be for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the Contract clause titled "Inspection of Construction".

3.9 CONTRACTOR DAILY CONSTRUCTION LOGS

Maintain current daily construction logs providing factual evidence that required Quality Control activities and/or tests have been performed. Include in these records the Work of Subcontractors and suppliers on an acceptable form that includes, as a minimum, the following information:

- a. List of Contractor/Subcontractor(s) at the Project site and its area of responsibility.
- b. Approximate count of personnel at Project site.
- c. Operating plant/equipment with hours worked, idle, or down for repair.
- d. Work performed each day, giving location, description, and by whom, correlated to the Resource-loaded Project Baseline activity number.
- e. High and low temperatures and general weather conditions.
- f. Equipment or system tests and/or control activities performed with results and references to specifications/drawings requirements. Identify the control phase (Preparatory, Initial, and Follow-up). List of deficiencies noted, along with corrective action.

Environmental Regulatory Requirements

For Government's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with environmental regulations bearing on performance of the work.

Manufacturer's Instructions

Material Safety Data Sheets

Protection of Natural Resources

1.4 PRE-CONSTRUCTION CONFERENCE

After award of Contract and prior to commencement of the Work, the Contractor shall schedule and conduct a meeting with the Contracting Officer **Representative** to discuss the proposed Environmental Protection Plan and to develop a mutual understanding relative to the details of environmental protection. The requirements for this meeting may be fulfilled during the Pre-construction Conference as specified in Section 01 30 00 ADMINISTRATIVE REQUIREMENTS.

1.5 ENVIRONMENTAL MANAGER

Appoint in writing an on-site Environmental Manager responsible for overseeing the environmental goals for the project and implementing procedures for environmental protection.

1.5.1 Duties

The Environmental Manager shall be responsible for the following:

- a. Coordinating Contractor compliance with applicable NNSS, Federal, state, local and Site environmental requirements and regulations, including maintaining required documentation.
- b. Ensuring that all environmental permits are obtained, maintained, and closed out.
- c. Monitoring and documentation of environmental procedures.
- d. Implementation of the Environmental Protection Plan (EPP).
- e. Implementation of the Storm Water Pollution Prevention Plan (SWPPP) as specified in section 01 57 23 TEMPORARY STORM WATER POLLUTION CONTROL.
- f. Implementation of the Dirt and Dust Control Plan;
- g. Implementation of the Solid Waste Management Plan as specified in section 01 74 19 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT.
- h. Ensure waste segregation and storage compatibility requirements are met; inspect and manage satellite accumulation areas; ensure only authorized personnel add wastes to containers.
- j. Implementation of and ensuring compliance with Hazardous Waste Management Plan requirements (including hazardous waste handling, storage, manifesting, and disposal) as specified in section 01 57 20 ENVIRONMENTAL PROTECTION.

- k. Assuring all waste streams are properly characterized and classified for proper disposal.
- n. Maintaining the Environmental Records binder and required documentation, including environmental permits compliance and closure of the site at completion of the Contract.
- o. Ensure Contractor and tier Subcontractor personnel are trained in 40 CFR requirements in accordance with their position requirements.

1.5.2 Qualifications

The Environmental Manager can be dual-hatted, however, must be trained to adequately accomplish the above duties, and have demonstrated construction experience on projects of similar environmental requirements; minimum two (2) years of experience with environmental procedures similar to those of this project; familiarity with environmental regulations applicable to construction operations.

1.6 ENVIRONMENTAL REGULATORY REQUIREMENTS

The Contractor shall be responsible for knowing NNS, Federal, state, and local regulatory requirements pertaining to legal disposal of all construction and demolition waste materials. Comply with all applicable regulations and maintain records of permits, licenses, certificates, and other environmental regulatory requirement correspondences.

1.7 ENVIRONMENTAL REQUIREMENTS FOR PRODUCTS

1.7.1 Material Safety Data Sheets (MSDS)

Submit an MSDS for each product specified in other sections or required by OSHA to have an MSDS. MSDS shall be prepared within five (5) years. Include information for MSDS Sections 1 through 16 in accordance with ANSI Z400.1/Z129.1.

1.8 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction activities or delivery of materials to the site, the Contractor shall prepare and submit an Environmental Protection Plan for review and acceptance by the Contracting Officer **Representative**. The purpose of the EPP is to present a comprehensive overview of known or potential environmental issues that the Contractor must address during construction. Issues of concern must be defined within the EPP as outlined in this section. Address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but are considered necessary, must be identified and discussed after those items formally identified in this section. The EPP must be current and maintained onsite by the Contractor.

1.8.1 Contents

Include in the EPP, but not limit it to, the following:

- a. Description of the EPP

- (1) General overview and purpose

- A brief description of each specific plan required by environmental permit or elsewhere in this Contract.

known to be onsite or in the area are discovered during construction. Include in the plan methods to assure the protection of known or discovered resources, identifying lines of communication between Contractor personnel and the Contracting Officer **Representative**.

- j. Include and update a pesticide treatment plan, as information becomes available. Include in the plan: sequence of treatment, dates, times, locations, pesticide trade name, EPA registration numbers, authorized uses, chemical composition, formulation, original and applied concentration, application rates of active ingredient (i.e. pounds of active ingredient applied), equipment used for application and calibration of equipment. Federal, State, Regional and Local pest management record keeping and reporting requirements as well as any additional site-specific requirements are the Contractor's responsibility.

1.8.2 Appendix

Attach to the EPP, as an Appendix, copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination documents.

1.8.3 Environmental Protection Plan Review

Within thirty (30) days after the Contract award date, submit the proposed EPP for review and acceptance. Commencement of work will not be allowed until the EPP has been accepted.

1.8.4 Compliance

Acceptance of the Contractor's EPP will not relieve the Contractor of responsibility for compliance with applicable environmental regulations. No requirement in this Section will relieve the Contractor of any applicable NNSS, Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor will be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the EPP at no additional cost to the Government.

1.9 ENVIRONMENTAL DEMONSTRATION AND TRAINING

Contractor shall provide environmental training for workers performing work on the project site in accordance with existing NNSS requirements.

1.9.1 Instructor Qualifications

Training shall be given by a firm or individual experienced in providing training or education similar in content and extent to that indicated for this project.

1.9.2 Coordination

Coordinate instruction schedule with Government operations. Adjust schedule as required to minimize disruption of Government operations. Coordinate instruction with demonstration and training of general building systems.

1.9.3 Training Program

Incorporate existing site training programs or develop a training program for all site workers that includes the following topics:

- a. Overview of environmental and sustainability issues related to NNS.
- b. Overview of environmental and sustainability issues related to the project.
- c. Compliance with applicable federal, state, and local environmental regulations.
- d. Review of site-specific procedures and management plans implemented during construction, including the Waste Management Plan, Environmental Protection Plan, and procedures for noise and acoustics management.

1.9.3.1 Scheduling

Provide instruction at mutually agreeable time[s].

1.9.3.2 Training Modules

Use existing or develop learning objectives and teaching outline for each topic in the Training Program. Include a description of specific skills and knowledge that each participant is expected to acquire. Instructors shall be well-versed in the particular topics that they are presenting.

2 PART 2 PRODUCTS

2.1 ENVIRONMENTALLY PREFERABLE PRODUCTS

Consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and disposal of products, and provide products and materials with the least effect on the environment, released toxins, and other methods.

2.1.1 Prohibited Materials

The use of the following materials is prohibited:

- a. Products containing asbestos.
- b. Products containing urea formaldehyde.
- c. Products containing polychlorinated biphenyls.
- d. Products containing chlorinated fluorocarbons.
- e. Solder or flux containing more than two-tenths (0.2) percent lead and domestic water pipe or pipe fittings containing more than eight (8) percent lead.

2.1.2 Substitutions

Notify the Contracting Officer **Representative** when Contractor is aware of materials, equipment, or products that meet the aesthetic and programmatic intent of Contract Documents, but which are more environmentally responsible than materials, equipment, or products specified or indicated in the Contract Documents. Submit the following for initial review by the Contracting Officer

Representative:

- a. Product data including manufacturer's name, address, and phone number.
- b. Description of environmental advantages of proposed substitution over specified product.

3 PART 3 EXECUTION

3.1 PROTECTION OF NATURAL RESOURCES

Comply with applicable regulations and these specifications. Preserve the natural resources within the project boundaries and outside the limits of permanent work performed under this Contract in their existing condition or restore to an equivalent or improved condition as approved by the Contracting Officer **Representative** and per NNSS requirements. Where violation of environmental procedures requirements will irreversibly damage the site, documentation of progress at daily intervals shall be required.

3.1.1 General Disturbance

Confine demolition and construction activities to work area limits indicated on the Drawings. Remove debris, rubbish, and other waste materials resulting from demolition and construction operations from site. Transport materials with appropriate vehicles and dispose of them off site to areas that are approved for disposal by governing authorities having jurisdiction. Avoid spillage by covering and securing loads when hauling on or adjacent to public streets or highways. Remove spillage and sweep, wash, or otherwise clean project site, streets, or highways. Burning is prohibited.

3.1.2 Water Resources

The Contractor shall supervise and control construction activities to avoid pollution of surface or ground water. The Contractor shall comply with requirements of the National Pollutant Discharge Elimination System (NPDES). Prevent oily or other hazardous substances from entering the ground, drainage areas, or local bodies of water. Store and service construction equipment at areas designated for collection of oil wastes. Prevent ponding of stagnant water conducive to mosquito breeding habitat. Prevent run-off from site during demolition and construction operations.

3.1.3 Land Resources

Prior to construction, identify land resources to be preserved within the work area. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and landforms without permission from the Contracting Officer **Representative**. Coordinate protection practices with work specified in section 01 57 20 ENVIRONMENTAL PROTECTION, section 01 57 23 TEMPORARY STORM WATER POLLUTION.

3.1.3.1 Erodible Soils

Plan and conduct earthwork to minimize the duration of exposure of unprotected soils, except where the constructed feature obscures borrow areas, quarries, and waste material areas. Clear areas in reasonably sized increments only as needed to use the areas developed. Form earthwork to final grade as shown. Immediately protect side slopes and back slopes upon completion of rough grading.

1.4 SUBMITTAL RECIPIENTS

Submittals of all documents shall be made as noted below:

Contracting Officer Representative (NA-APM-20) USDOE/NNSA
Nevada Field Office
232 Energy Way
North Las Vegas, NV

Desiree.ang@nnsa.doe.gov and **Yemi.Adesina@nnsa.doe.gov**

1.5 SUBMITTAL CLASSIFICATION

1.5.1 Submittals Requiring Government Approval [G]

As soon as practicable after award of Contract, and at least 21 calendars days prior to procurement or fabrication, forward to the Government submittals required in the technical sections of this specification, including shop drawings, product data and samples.

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer **Representative**. Government approval is required for any deviations from the Contract Requirements. Within the terms of the Contract Clause entitled, "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.5.2 Government Receipt Acknowledged (RA)

Submittals not requiring Government approval and not having a "G" designation are for Contractor Quality Control approval. The Government will return a copy of the submittal transmittal sheet with a notation of "Receipt Acknowledged (RA)" only. Copies of the submittal will not be returned to the Contractor. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.6 PREPARATION

1.6.1 Transmittal Form

Transmit each submittal, except sample installations and sample panels, to the address listed in 1.4 above. Transmit submittals with transmittal form prescribed by Contracting Officer **Representative** and standard for project. On the transmittal form identify Contractor, indicate date of submittal, and include information prescribed by transmittal form and required in paragraph entitled, "Identifying Submittals," of this section. Process transmittal forms to record actions regarding sample installations.

1.7.3 Number of Samples

- a. Submit two (2) showing range of variation, of each required item. One approved sample or set of samples will be retained by approving authority and one will be returned to Contractor.
- b. Submit one sample of non-solid materials.

1.7.4 Number of Copies Design Data and Certificates

Submit in compliance with quantity requirements specified for shop drawings.

1.7.5 Number of Copies Test Reports and Manufacturer's Field Reports

Submit in compliance with quantity and quality requirements specified for shop drawings other than field test results that will be submitted with QC reports.

1.7.6 Number of Copies of Operation and Maintenance Data

Submit two (2) copies of O&M Data to the Contracting Officer Representative for review and approval.

1.7.7 Number of Copies of Preconstruction Submittals and Closeout Submittals

Unless otherwise specified, submit two (2) sets of administrative submittals.

1.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned to the Contractor. Approval of the Contracting Officer **Representative** is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the Contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer **Representative** from requiring removal and replacement of nonconforming material incorporated in the Work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

1.9 VARIATIONS

Variations from Contract requirements require both Designer of Record (DOR) and Government approval pursuant to contract Clause FAR 52.236-21 and will be considered where advantageous to the Government.

- a. Contractor shall provide the Submittal Register in printed form 8.5 x 11 or 11 X 17 inch size by email in Microsoft Excel.

1.11 SCHEDULING SUBMITTALS

Schedule and submit concurrently submittals covering component items forming a system or items that are interrelated. Include certifications to be submitted with the pertinent drawings at the same time. No delay damages or time extensions will be allowed for time lost in late submittals.

- a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of the Work so that Work will not be delayed by submittal processing. Allow for potential re-submittal of requirements.
- b. Submittals called for by the Contract documents will be listed on the register. If a submittal is called for but does not pertain to the Contract work, the Contractor is to include the submittal in the register and annotate it "N/A" with a brief explanation. Approval by the Contracting Officer Representative does not relieve the Contractor of supplying submittals required by the Contract documents, but which have been omitted from the register or marked "N/A."
- c. Carefully control procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."
- d. Period of review for each re-submittal is the same as for initial submittal.

1.12 GOVERNMENT APPROVING AUTHORITY

When the Approving Authority is the Contracting Officer Representative, the Government will:

- a. Note date on which submittal was received from the Contractor.
- b. Review submittals for approval within scheduling period specified and only for conformance with project design concepts and compliance with Contract documents.
- c. Identify returned submittals with one of the actions defined in paragraph entitled, "Review Notations," of this section and with markings appropriate for action indicated.

Upon completion of review of submittals requiring Government approval, the Approving Authority will stamp and date approved submittals. One (1) copy of the approved submittal will be retained by the Contracting Officer **Representative** and one (1) copy of the submittal will be returned to the Contractor.

Approval or acceptance by the Government for a submittal does not relieve the Contractor of the responsibility for any error which may exist or meeting the contract requirements, because under the Contractor Quality Control (CQC) requirements of this contract, the Contractor is responsible for ensuring information contained within each submittal accurately conforms with the requirements of the contract documents which includes dimensions, the design of adequate connections and details, and the satisfactory construction of all work.

After submittals have been approved or accepted by the Contracting Officer Representative, no re-submittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.15 APPROVED SAMPLES

Approval of a sample is only for the characteristics or use named in such approval and is not to be construed to change or modify any Contract requirements. Before submitting samples, the Contractor shall provide assurance that the materials or equipment will be available in quantities required in the project. No change or substitution will be permitted after a sample has been approved.

Match the approved samples for materials and equipment incorporated in the Work. If requested, approved samples, including those which may be damaged in testing, will be returned to the Contractor, at his expense, upon completion of the Contract. Samples not approved will also be returned to the Contractor at its expense, if so requested.

Failure of any materials to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material. Government reserves the right to disapprove any material or equipment which previously has proved unsatisfactory in service.

Samples of various materials or equipment delivered on the site or in place may be taken by the Contracting Officer **Representative** for testing. Samples failing to meet Contract requirements will automatically void previous approvals. Contractor to replace such materials or equipment to meet Contract requirements.

Approval of the Contractor's samples by the Contracting Officer Representative does not relieve the Contractor of his responsibilities under the Contract.

1.16 STAMP

Stamp used by the Contractor on the submittal data to certify that the submittal meets Contract requirements is to be similar to the following:

CONTRACTOR

the authorized representative shall be made available to the Contracting Officer **Representative** (COR), as requested.

1.5 OTHER REQUIREMENTS FOR SCHEDULING

1.5.1 Submittals Requiring Government Approval [G]

1.5.2 Government Receipt Acknowledged (RA) shall be included in the project schedule

2 PART 2 PRODUCTS

Not Used

3 PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

The 138kV PTSR is a firm fixed-price contract and therefore contractor will not be required to employ a certified EVMS.

The Contractor shall prepare for approval a Resource-loaded Baseline Project Schedule, as specified herein, pursuant to the Contract Clause FAR 52.236-15, SCHEDULE FOR CONSTRUCTION CONTRACTS except as modified in this Contract. The Project Schedule shall show the sequence in which the Contractor proposes to perform the Work and dates on which the Contractor plans starting and completing all schedule activities. The scheduling of the entire project is required. Contractor management personnel shall actively participate in its development. The Contractor shall coordinate and integrate Subcontractors' and suppliers' schedules into an accurate integrated Project Schedule. The Project Schedule shall be used for forward planning, as well as a project monitoring tool.

Construction schedules must allow work to be performed in a safe manner. The Contractor cannot reduce safety or worker protection in order to shorten construction schedules, recover lost time, or accelerate work. Schedule performance shall never take precedence over safety.

3.1.1 Approved Project Schedule

Only the Contractor's **invoice draw down** for Performance and Payment Bonds shall be paid by the Government prior to acceptance of the Contractor's Resource-loaded Baseline Project Schedule. Progress payments against the Contractor's proposed sixty (60) day mobilization plan included in their proposal and then subsequently incorporated into the Baseline Schedule may be considered.

Specific payment amounts in the approved Resource-loaded Baseline Project Schedule for each of these line items shall be reasonable for the effort involved based on the size and complexity of the activity, and will be agreed upon by the Contractor and the Government during development of the Baseline Project Schedule.

Government review comments on the Contractor's schedule(s) shall not relieve the Contractor from compliance with requirements of the Contract Documents.

Failure of the Contractor to provide all required information will result in the disapproval of the draft, Baseline, and subsequent updates to the Project Schedule. Acceptance of the Resource-loaded Baseline Project Schedule by the Government does not relieve the Contractor of any of its responsibility for the accuracy or feasibility of the Schedule.

3.1.2 Basis for Payment and Resource-Loading

The Resource-loaded Baseline Project Schedule and the Periodic Schedule Updates shall be used as the basis for determining Contract progress and for all progress payments of Contractor's invoices in accordance with section 01 20 00 PRICE AND PAYMENT PROCEDURES. Lack of an agreed-to schedule update will result in the inability of the Contracting Officer or Contracting Officer's Representative (COR) to evaluate Contract progress for the purposes of payment. If the Contractor fails to submit any schedule within the time prescribed herein, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

The Contractor shall make the Project Schedule resource-loaded as defined above under DEFINITIONS. Activity resource-loading shall be reasonable. The Contractor should evenly disperse Contractor's overhead, profit, and general conditions to each applicable activity over the duration of the project. Excessive loading of activities that occur early in the project at the expense of activities that occur later (i.e., front-loading) will not be allowed. The value of inspection, testing, and commissioning of all systems, along with all closeout activities in the Baseline Project Schedule shall reflect their respective realistic costs.

3.1.3 Schedule Status Reports

Provide a Project Schedule Status Update and associated reports and files on at least a monthly basis, as described in Sections 3.4 and 3.5 below. If, in the opinion of the Contracting Officer Representative, the Contractor falls behind the approved Baseline Project Schedule, the Contractor shall take steps necessary to improve its progress, without additional cost to the Government. In this circumstance, the Contracting Officer **Representative** may require the Contractor to submit a Recovery Plan (see Section 3.6.3 below) for approval to demonstrate how the approved rate of progress will be regained.

3.2 BASELINE PROJECT SCHEDULE DEVELOPMENT

3.2.1 Project Schedule Kick-off Meeting

The Contractor and the Government shall participate in a preliminary meeting(s) within fourteen (14) calendar days of Notice to Proceed (NTP) to discuss the proposed schedule and requirements of this section prior to the Contractor preparing the Project Baseline Schedule. This meeting will review the format and submittal time periods for the Baseline Project Schedule and other Contract progress reports.

3.2.2 Work Breakdown Structure (WBS) and WBS Dictionary

The scope of work to be accomplished by the Contractor shall be represented to the Government in the form of a product-oriented Work Breakdown Structure (WBS) in accordance with the *DOE Work Breakdown Structure Handbook, Current Edition*. The WBS shall be the basis for the development of the schedule activities and shall be embedded and depicted in the schedule. The Contractor shall be prepared to discuss its proposed WBS at the initial project schedule kick-off meeting.

- Training
- Remove temporary installations
- Clean sites and buildings
- Project Closeout
- Demobilize

3.3.2.15 Mandatory Testing and Commissioning Activities

- a. The commissioning specified in section 01 91 00 COMMISSIONING, and other technical specifications, shall be broken down in the Resource-loaded Project Baseline by separate activities with integrated logic at a level of detail which identifies activities and integrates specific activity durations and interdependencies of tasks related to all testing and commissioning of building systems (e.g., pre-functional testing, functional performance and integrated systems testing, etc.). The logic shall be tied to the overall project schedule and it shall be shown that all tasks associated with all building testing and commissioning will be completed prior to submission of the building commissioning report and subsequent Contract completion. Refer to section 01 91 00 COMMISSIONING for further requirements. Specific payment amounts in the approved Resource-loaded Project Baseline for each of these line items shall be reasonable for the effort involved based on the size and type of building system, and will be agreed upon by the Contractor and the Government during development of the Project Baseline. The activities shall be as follows:

3.3.2.16 Mandatory Project Closeout Activities

The following activities must be included and properly scheduled:

- a. Submission and approval of red-lined drawings and specifications.
- b. Submission and approval of real property transfer forms.
- c. Contractor's pre-final inspection.
- d. Correction of punch list from Contractor's pre-final inspection.
- e. Government's pre-final inspection.
- f. Correction of punch list from Government's pre-final inspection.
- g. Final inspection.

3.3.2.17 Activity Calendars

Schedule activities on a calendar to which the activity logically belongs. If the Contractor intends to perform physical work less than seven (7) days per week, schedule the associated activities on a calendar with non-work periods (e.g., Saturday, Sunday). All Federal Holidays should be listed as non-work days unless an alternate work schedule is requested no less than fourteen (14) calendar days in advance. Activities may be assigned to a seven (7) day calendar when the Contract assigns calendar day durations for the activity such as a Government Acceptance activity. Original durations must account for anticipated normal adverse weather. The Government will interpret all work periods not identified as non-work periods on each calendar as meaning the Contractor intends to perform work during those periods.

3.3.3 Schedule Constraints and Logic

The use of activity constraint dates and negative lags on relationships should not be used unless justified to the Contracting Officer **Representative** by the Contractor.

No Level of Effort (LOE) activities will be allowed in the Baseline Project Schedule.

With the exception of the Contract Award and Contract Completion Date (CCD) milestone activities, no activity shall be open-ended; each activity shall have predecessor and successor ties.

No more than twenty (20) percent of the activities on the Baseline Project Schedule shall be critical or near critical. Critical is defined as having zero (0) Total Float. "Near Critical" is defined as having Total Float of one (1) calendar days.

Once an activity exists on the schedule it may not be deleted or renamed to change the scope of the activity and shall not be removed from the schedule logic unless justified to the Contracting Officer **Representative** by the Contractor. The ID number for a deleted activity shall not be re-used for another activity.

The Project Baseline shall show all planned "Utility Shut-downs" which could impact Contractor, tenants and other building operations or functions including but not limited to: power, telephone, computers, communication systems, air conditioning systems, fire sprinklers, alarm systems, domestic water systems and sanitary sewer systems, etc. In addition, maintenance of traffic phases and constraints with milestone dates should be identified.

3.3.3.1 Early Project Completion

In the event the Project Baseline calculates an early completion date of the last activity prior to the Contract Completion Date, the Contractor shall identify those activities that it intends to accelerate and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. The Government is under no obligation to accelerate activities for which it is responsible to support a proposed early Contract completion.

3.3.3.2 Contract Completion Dates for Portions of the Work

Reserved.

3.3.3.3 Out-of-Sequence Progress

Activities that have progressed before all preceding logic has been satisfied (Out-of-Sequence Progress) shall be reported in the monthly report. Any corrections to the sequencing logic shall be incorporated in the next Periodic Schedule Update.

3.3.3.4 Negative Lags and Start to Finish Relationships

Negative Lags and Start-to-Finish relationships should not be used unless justified to the Contracting Officer and Contracting Officer Representative by the Contractor.

3.4 SUBMISSION REQUIREMENTS

Submit the following items for the Draft Project Schedule submittal, Baseline submittal, and each Periodic Schedule Update throughout the life of the project:

3.4.1 Data Delivery

Provide the Project Baseline in the Primavera P6-compatible native format of the software (XER or XML) used to create and manage the Project Baseline. Label each file indicating the type of schedule (Draft, Baseline, Update), full Contract number and Data Date. Each schedule shall have a unique file name as determined by the Contractor.

3.4.2 Narrative Report

Provide a Narrative Report with the Draft, Baseline, and each Periodic Project Schedule Update, as the basis of the progress payment request. The narrative report is expected to communicate to the Government, the Contractor's thorough analysis of the schedule output and its plans to compensate for any problems, either current or potential, which are revealed through that analysis. The Narrative Report shall include:

- Pending items and status thereof, including permits, RFIs, change orders, submittals, AUWs, and time extensions;
- Identify any critical path or near critical path activities that, based on their calculated late dates, should have either started or finished during the update period but did not. Identify the magnitude of the variance, analyze and explain the root cause of the variance, explain the corrective action that is being taken, or will be taken, and state the expected time frame in which the variance will be mitigated;
- A description of current and anticipated problem areas or delaying factors and their impacts to the Project Baseline, and an explanation of corrective actions that are being taken or are required to be taken, and state the expected time frame in which the impacts to the Project Baseline are mitigated;
- Identify any Out of sequence activities as defined in section 3.3.3.3 above, and an explanation of their impacts to the Project Baseline, both positive and negative.
- Identify any schedule variances of this period's status update from the approved Project Baseline and the last Periodic Schedule Update.
- Identify any progress for AUW within the period, pending final conversion to an executed Contract modification.

Each entry in the narrative report will cite the respective Activity Numbers and Activity Description. Additional schedule data may be included as needed to address each topic listed above.

3.4.3 Approved Changes Verification

Include only those project schedule changes in the schedule submission that have been previously approved by the Contracting Officer **Representative**. The Narrative Report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes.

3.4.4 Schedule Reports

The format, filtering, organizing and sorting for each schedule report (e.g., monthly periodic update, 2-week look ahead) should contain: WBS, Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float, Actual Start Date, Actual Finish Date, Responsibility Code, Successor,

disapproval of the Contractor's updated schedule and the inability of the Contracting Officer **Representative** to evaluate Contractor progress for payment purposes.

3.5.1.3 Remaining Duration

The remaining duration (RD) of an activity shall be the number of days estimated to complete the activity. Remaining Durations may exceed the activity OD or may exceed the activity's prior update RD if the current OD or RD is understated based on current progress, unrealistic OD or deficiencies that must be corrected that restrain successor activities. Remaining duration shall be manually input and shall not be automatically computed based on the percent complete of the activity. Disable program features which calculate one of these parameters from the other.

3.5.1.4 Percent Complete

For the Method of Performance Claimed when each activity was set up in the Project Baseline, the Contractor shall update the percent complete for each activity started, based on the realistic assessment of work performed, independent of Remaining Duration. Material is progressed based on verification of materials received on-site. Labor/installation is progressed based on completion of physical work. The percent complete shall be manually input and shall not be automatically computed based on the remaining duration of the activity. Disable program features which calculate one of these parameters from the other.

3.5.1.5 Logic Changes

Specifically identify and discuss all logic changes pertaining to the Project Baseline since original acceptance or since the last Periodic Schedule Update. Logic changes may include: 1) Contract modifications to be incorporated into the schedule; 2) Contractor proposed changes in work sequence; 3) corrections to schedule logic for out-of-sequence progress; 4) Recovery Plan changes, and 5) other changes that have been made pursuant to Contract provisions. The Government will only approve logic revisions not included in a Contract modification for the purpose of keeping the schedule valid in terms of its usefulness in calculating a realistic completion date, correcting erroneous logic ties, and accurately sequencing the work.

3.5.1.6 Other Changes

Other changes required due to delays in completion of any activity or group of activities include: 1) delays beyond the Contractor's control, such as strikes and unusual weather; 2) delays encountered due to submittals, Government Activities, deliveries or work stoppages which make re-planning the work necessary; or 3) changes required to correct a schedule that does not represent the actual or planned prosecution and progress of the Work.

3.5.2 Periodic Schedule Update Meetings

The Contractor's Project Manager shall conduct Periodic Schedule Update Meetings with the Authorized Representative of the Contracting Officer, for the purposes of reviewing the Contractor's proposed progress, out of sequence corrections, determining causes for delay, correcting logic, maintaining schedule accuracy and determining project progress for Contractor's **invoice draw down** and Government progress payment purposes. The proposed updated Project Schedule shall have a data date consistent with the end of the Contractor's accounting period. Meetings shall occur within five (5) working days of the schedule data date, and after the Contractor has updated the schedule through

the Contractor's previous accounting period with actual start dates, actual finish dates, remaining durations and percent complete for each activity it intends to status. A draft of the proposed activity logic corrections and narrative report shall be provided to the Government forty-eight (48) hours in advance of the meeting.

The meeting will be a working interactive exchange which will allow the Government and the Contractor the opportunity to review the updated schedule on a real time and interactive basis. The Contractor shall provide a laptop with the scheduling software loaded which allows all meeting participants to view the proposed schedule update during the meeting. The meeting and resultant approvable schedule update shall be a condition precedent to a formal submission of the update as described in SUBMISSION REQUIREMENTS and to the submission of an ~~invoice draw down~~ for payment. The submission of an acceptable, updated schedule to the Government is a condition precedent to the processing of the Contractor's ~~invoice draw down~~ in accordance with section 01 20 00 PRICE AND PAYMENT PROCEDURES.

3.5.3 Submission Following Periodic Schedule Update Meeting

Based on the results of the Periodic Schedule Update Meeting, the Contractor shall submit a complete update of the Resource-loaded Project Schedule containing all approved progress, revisions, and adjustments, pursuant to paragraph SUBMISSION REQUIREMENTS not later than five (5) working days after the Periodic Schedule Update Meeting, reflecting only those changes made during the update meeting.

These submissions will enable the Contracting Officer **Representative** to assess the Contractor's progress. If the Contractor fails or refuses to furnish the information and project schedule data, which in the judgment of the Contracting Officer or COR is necessary for verifying the Contractor's progress, the Contractor shall be deemed not to have provided an estimate upon which progress payment may be made.

3.6 PROJECT BASELINE REVISIONS

Project Baseline revisions will only address the portion of the schedule concerning To-Go work (i.e., work after the Data Date). Any proposed changes in logic or durations submitted by the Contractor will be used to analyze the impact of requested changes. After the Government receives, reviews, negotiates and approves proposed changes, a Contract modification will be executed, and the Contractor shall include the proposed revisions to the network logic, durations, and resource-loading for all affected activities into the Project Baseline. Once the executed modification is entered in the schedule, this schedule becomes the new Project Baseline for which all future periodic updates are created from and any future time considerations will be calculated by.

Any approved revisions to the Project Baseline require a current revision number and resubmission under the requirements listed above in Section 3.4.

3.6.1 Government-Initiated Change Request

The Contracting Officer may make changes in the work, within the general scope of the Contract, which may require adjustment to the Project Schedule, including specifications (e.g. drawings and designs) and other changes authorized by FAR 52.243-4, Changes. Reference section 01 20 00 PRICE AND PAYMENT PROCEDURES.

As necessary, the Contractor shall also submit a Time-Impact Analysis (TIA) detailed below requesting adjustment to the Project Baseline necessary to execute the change.

The Contractor shall not proceed with work addressed in a Government-Initiated RFP without an AUW notice with an NTE from the Contracting Officer or executed Contract modification, except at its own risk.

3.6.2 Contractor-Initiated Change Request

The Contractor shall notify the Contracting Officer immediately in the event any change to the Contract causes an increase or decrease in the Contractor's cost, or the time required for, performance of any part of the work under this Contract in accordance with FAR 52.243-4, Changes. The Contractor shall also promptly, and before the conditions are disturbed, notify the Contracting Officer of conditions described in FAR 52.236-2, Differing Site Conditions. Reference section 01 20 00 PRICE AND PAYMENT PROCEDURES.

As necessary, the Contractor shall also submit a TIA detailed below requesting adjustment to the Project Baseline necessary to execute the change.

The Contractor shall not proceed with work addressed in a Contractor-proposed change without an AUW notice with an NTE from the Contracting Officer or executed Contract modification, except at its own risk.

3.6.3 Recovery Plan Change

If the Contractor's progress falls significantly behind the approved Project Baseline, the Contracting Officer **Representative** may determine that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time and terms specified in the Contract. Upon making this determination, the Contracting Officer **Representative** may notify Contractor to take such steps as may be necessary to improve its progress, and may require the Contractor to develop a Recovery Schedule to show how the Contractor plans to return to "on schedule" performance.

The Contractor shall prepare Recovery Plan Changes to the Project Baseline in a manner similar to TIA below, except that once accepted **by the Contracting Officer Representative** and approved by the Contracting Officer, a Contract modification will be issued only to make the Recovery Plan Schedule part of the Contract; no change in Contract Value will be given.

3.6.4 Requests for Time Extensions

In the event the Contractor believes it is entitled to an extension of the Contract performance period, any Contract Completion Date for a portion of the work, or the Project Contract Completion Date, the Contractor shall furnish the following **to the COR** for a determination by the Contracting Officer: Time-Impact Analysis, project schedule data, and supporting evidence as the Contracting Officer may deem necessary. Submission of proof of excusable delay, based on revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is a condition precedent to any approvals by the Government.

Contract documents, including and without limitation, the need to check, confirm and coordinate the work of all tier Subcontractors for the project.

If the Contractor uses, duplicates and/or modifies these electronic CADD files for use in producing construction submittals data related to this Contract, all previous indicia of ownership (seals, logos, signatures, initials and dates) shall be removed.

1.8 ELECTRONIC MAIL (E-MAIL) ADDRESS

The Contractor shall establish and maintain electronic mail (e-mail) capability along with the capability to open various electronic attachments in Microsoft, Adobe Acrobat, Webex and other similar formats. Within ten (10) calendar days after Contract award, the Contractor shall provide the Contracting Officer Representative a single (only one) e-mail address for electronic communications from the Contracting Officer Representative related to this Contract including, but not limited to Contract documents, ~~invoice~~ **draw down** information, Government-initiated Change Request(s), and other correspondence. The Contracting Officer Representative may also use email to notify the Contractor of Site access conditions when emergency conditions warrant, terrorist threats, etc. Multiple email address for electronic communications between the Contractor and the Government will not be allowed.

It is the Contractor's responsibility to make timely distribution of all Contracting Officer Representative initiated e-mail with its own organization including field office(s) and tier Subcontractor(s). The Contractor shall promptly notify the Contracting Officer Representative, in writing, of any changes to this email address.

1.9 PARTNERING

To most effectively accomplish this Contract, the Government requires the formation of a cohesive partnership within the Project Team whose members are from the Government, Government Agents/Representatives, the Contractor and its Subcontractors. Key personnel from the Contractor and Subcontractors, The Partnership will draw on the strength of each organization in an effort to achieve a project that is without any safety incidents, conforms to the Contract, and stays within budget and on schedule.

The Contracting Officer Representative will coordinate information provided by the Contractor on the Partnering Process. Contractor shall provide a list of key and optional personnel who should attend the Partnering meeting. Contracting Officer Representative may add Government participants as necessary.

1.9.1 Formal Partnering

Contractor to provide and host the Partnering sessions with key personnel of the Project Team, including Contractor personnel and Government personnel. Pay all costs associated with the Partnering effort including the Facilitator, the meeting room, and other incidental items.

Before a Partnering session, coordinate with the Facilitator all requirements for incidental items (such as audio-visual equipment, easels, flipchart paper, colored markers, note

revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

b. Review present and future needs of each entity present, including the following:

- 1) Interface requirements.
- 2) Outages.
- 3) Sequence of operations.
- 4) Status of submittals.
- 5) Scheduled deliveries.
- 6) Off-site fabrication.
- 7) Site access issues.
- 8) Permits.
- 9) Temporary facilities and controls.
- 10) Work hours.
- 11) Hazards and risks.
- 12) Progress cleaning.
- 13) Quality control and daily construction reporting.
- 14) Status of correction of deficient items.
- 15) Field observations.
- 16) RFIs.
- 17) Status of Government proposal requests.
- 18) Pending changes.
- 19) Status of submitted Change Orders.
- 20) Pending claims and disputes.
- 21) Documentation of information for ~~invoices~~ **drawn downs**.

3. Minutes: Contractor shall record and distribute meeting minutes within five (5) working days of meeting.

3.5.1.3 FACILITY TURNOVER PLANNING MEETING

Key personnel will meet to identify strategies to ensure the project is carried to expeditious closure and turnover to the NNS site, Government and current M&O having jurisdiction. Start the turnover process at the Pre-construction Conference and convene at the Facility Turnover Planning Meetings once the project has reached approximately 75 percent completion or three to six months prior to Beneficial Occupancy Date (BOD), whichever comes first. The Contracting Officer Representative (COR) will lead the meeting and guide discussions based on an agenda provided by the Government. The facility turnover effort shall include the following:

- a. Pre-Construction Conference – Contractor shall develop a Red-Zone Checklist template to the Contracting Officer Representative for acceptance. The Contractor shall for populating the Red-Zone Checklist with activities and milestones that the Contractor anticipates will be important to track as the project nears turnover and completion. The Contractor, M &O and COR will compare the Contractor's Baseline Project Schedule to Red-Zone Checklist items.