ACQUISITION STRATEGY TEMPLATE

Acquisition Strategy

Revision X
September 200X

APPROVALS

DOE/NNSA:

Submitted for Approval:

_____ _____

Federal Project Director, NNSA Date

Recommended for Approval:

_____ _____

Contracting Officer Date

Concurrence:

_____ _____

Deputy Director, Office of Acquisition and Supply Management, NNSA/NA-63 — Date

DOE NNSA Approval:

_____ _____

Associate Administrator, Infrastructure and Environment, NNSA/NA-50 — Date

CHANGE LOG

Rev. No.	Date	Change Description	Pages Modified
Rev. A	10/04	Initial Draft	N/A

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1.0 DESIRED OUTCOME AND REQUIREMENTS DEFINITION

Summary Project Information

Lead Program and Project Office:

- Facilities and Infrastructure Recapitalization Program (FIRP)

Total Project Cost (TPC):

- $7.80 to $10.21 Million (M)

CD-0 Mission Need Approved:

- November 19, 2003

CD-0 Approving Official:

-

CD-0 Material Change:

- 44,405 Linear Feet (LF) offsite gas-line in CD-0, changed to 47,000 LF.
- Added re-seed of construction easement.
- Added three-strand barbed wire fence on both sides of the easement for construction.
- Planned acquisition altered from Design-Bid-Build to Design-Build strategy
- National Environmental Policy Act (NEPA) strategy changed from Categorical Exclusion to Environmental Assessment (EA)

Project Description

The purpose of the project is to provide reliable natural gas service to support Manufacturing and Infrastructure operations. The project addresses those areas of the gas main and distribution system that are of questionable reliability due to aging, incompatible materials, and use of antiquated technologies. Additionally, the project will minimize risks to the government associated with failures both onsite and offsite, eliminate the deferred maintenance for the system, and provide a design life of 25 years. Specific areas to be addressed are:

- Pipeline replacement/upgrade
- Upgrade of appurtenances
- Cathodic protection installation

Pipeline replacement/upgrade includes approximately 47,000 LF of steel piping offsite (installed in the early 1950's) and approximately 27,445 LF of steel piping onsite (installed in the early 1940's).

Instrumentation required to meter the flow of natural gas from the supplier will be upgraded with the latest technological devices. New flow regulators and isolation valves will be installed, and a Motor Operated Isolation Valve (MOIV) with remote-control

capability will be installed at the Plant property line where the gas main enters the site, for enhanced safety and control.

Utilization of High Density Polyethylene (HDPE) in place of steel piping for the underground portions of the system eliminates the need for impressed ground beds for cathodic protection. Metallic valves, regulations, and metering components will be cathodically protected using sacrificial anodes and test stations.

Performance Parameters Required to Obtain Desired Outcome

This project will revitalize the system to meet NNSA mission for Project parameters, will assure facility infrastructure reliability, and NNSA mission expectations.

Ruptures in the current gas system affect various manufacturing and infrastructure operations at the plant. Gas distribution failures have increased over the past several years. Most gas interruptions are minor, since the Steam Plant and other critical items have the capability of switching to an alternate fuel source (diesel). The use of diesel however, becomes an environmental air quality permit issue. The Plant carefully monitors all usage of the alternate fuel source to ensure that the environmental air quality permit is not violated.

Replacement and upgrade of the gas system will minimize potential violation of the air quality permits, and reduce impacts to the following critical facilities and processes:

- Steam for environmental controls for mission essential bays and cells.
- Steam for process equipment.
- Steam for heat in buildings and ramps.
- Direct gas fired heating and water heating.
- Plant water well pump operations.
- Emergency generator for medical facility.
- Sanitization of classified material (incinerator).
- Metal treating for Tooling Operations.

NNSA's nuclear facilities require a reliable and safe Infrastructure. Natural gas utilities are an essential part of ensuring reliable facilities. The project will require modern materials and appurtenances that promote safety and longevity at low cost. These materials will have to be able to resist damage due to mechanical means or natural occurrences. A modern, well-designed gas main and distribution system will reduce or eliminate maintenance costs over its design life and provide the reliability that the Plant needs.

Operational requirements reflect the core functions that the current system lacks. The current system is potentially unreliable, unsafe, and does not provide for future needs. Operational requirements will be the same for each alternative considered.

The final requirement for the upgrade is that it must provide for the Plant's current and future needs as noted above, and have a design life of 25 years as reflected in the DOE Accounting Handbook, Chapter 10, attachment 10-1, "Standard Service Lives" and is consistent with the DOE Conditions Assessment Survey (CAS) Manual. Note that this design life is below the expected life of HDPE piping, a conservative 40 years (estimated by HDPE manufacturer Polypipe).

2.0 COST AND SCHEDULE RANGE

Total Project Cost Range

The preliminary Total Project Cost (TPC) Range at CD-0 was $5.340 - $7.540M.

The current Total Project Cost Estimate is $8.856M as outlined in Table 1, below. Total Project Cost Range is $7.800M - $10.210M:

Table 1 – Total Project Cost Range

Task	WBS Level	Estimate ($K)	Minimum Cost ($K)	Maximum Cost ($K)
1.01 Pre-conceptual/Mission Need	2	126	113	138
1.02 Conceptual Design	2	624	562	686
1.03 Title I/Title II Design	2	733	669	806
1.04 Construction	2	6,116	5,529	6,728
1.05 GFE Equipment	2	0	0	0
1.06 Acceptance / Start-up	2	257	232	282
Total Project Cost		7,856	7,107	8,640
Program Contingency*		1,000	1,000	1,000
Total Project Cost		**8,856**	**8,107**	**9,640**

NOTE: Program Contingency (risk contingency) established for potential Land and Livestock losses.

Funding Profile

Table 2 – Funding Profile ($K)

FY	Prior Years (03-04)	2005	2006	2007	2008	TOTAL
PED		1,091				**1,091**
Construction			3,700	3,145		**6,845**
Other Project Costs	323	202	100	100	195	**920**
Total Project Costs						**8,856**

The Budget Department, in accordance with NNSA budget guidance, manages the budgeting and funding. The funding for the Title I and Title II Design Phase is to be funded from the Project Engineering and Design (PED) funds. Total funding requirements are defined in the Construction Project Data Sheet (CPDS), which has been updated to reflect the funding profile utilized in the development of this document. The

Integrated Construction Program Plan (ICPP) will also need to be modified to reflect this profile.

Key Milestones and Events

The following are the milestones planned for this project:

Table 3 – Key Milestones

Milestone	Date	Milestone	Date
Approval for CD-0 (Completed)	11/20/03	NTP Construction – offsite	1Q FY07
Approval for CD-1	10/05	NTP Construction - onsite	3Q FY07
Approval for CD-2	06/06	Acceptance/ Start-Up Complete	3Q FY08
Approval for CD-3	06/06	Approval for CD-4	3Q FY08
Award Design-Build Contract	4Q FY06		

3.0 MAJOR APPLICABLE CONDITIONS

Brief Statement of Mission

The project is the replacement and upgrade of existing infrastructure at the Plant. Natural gas is a required utility service that supports mission essential and mission support facilities on the Plant.

The goals of the project are reflected in the Facilities and Infrastructure Recapitalization Program (FIRP) within NNSA. The goals were established to "extend facility lifetimes, reduce the risk of unplanned facility system and facility equipment failures and or increase operational efficiencies and effectiveness."

Environmental and Regulatory

No environmental issues have been identified to date that would significantly impact this project. The project entails the upgrade of natural gas distribution system onsite and the gas main offsite. Preliminary NEPA analysis during Pre-Conceptual phase indicated that the project is categorically excluded as applicable within 10 CFR 1021, Subpart D, Appendix B.1, however, due to the sensitivities involved with offsite landowners, and potential NNSA vulnerabilities, the project has prepared an Environmental Assessment (EA). A Pre-decisional EA for this project was completed and made available to the public for review and comment. The Finding Of No Significant Impact (FONSI) and final EA were issued on September 15, 2005.

The project area cuts across three different land uses; cultivated ground, native grass or pastureland, and land in the Conservation Reserve Program (CRP). The United States Department of Agriculture has confirmed that CRP payments to landowners will not be impacted as long as ground cover is re-established within two (2) years of the construction. The project entails scope to reseed all areas affected by construction utilizing the appropriate ground cover material (seed mix).

Terrestrial habitats may be disturbed by construction. Shortgrass prairie (buffalo grass, blue grama, and, in mestic sights, western wheatgrass) represents the primary habitat for

species of concern (ex: Texas horned lizards, ferruginous hawk, western burrowing owls, song birds) in the area. The Natural Resource Coordinator of the Regulatory Compliance Department will be contacted if a nest(s) of any bird is encountered prior to or during the project. The project documents will require that the Plant's wildlife biologist be notified well in advance to any planned construction across these specific areas of concern.

The project does involve construction in or crosses Solid Waste Management Units (SWMUs). These areas have been assessed and do not pose a hazard. The crossing of the SWMUs will be coordinated with the construction contractor and the Regulatory Compliance Department, SWMU management section. The Regulatory Compliance Department and Environmental Remediation Services will evaluate the work within the SWMUs and the construction contractor will be provided with instructions on how to manage these areas.

Use of the alternate fuel source (diesel) could be a risk for air quality management, but the project is working to mitigate this usage by performing tie-ins/cutovers of the new system on weekends when natural gas demand to support mission critical programs is at its lowest.

Pollution Prevention Plans

The construction contract will require the Contractor to protect the environment. Throughout construction, storm-water management techniques will be used to prevent erosion and contain storm water while the site is disturbed. Dust control measures will be implemented to minimize air pollution during site preparation and construction. The Design-Build firm will be required to conform to the requirements of the Plant's Master Specification Division 1, Section 01557, "Environmental Protection" and Section 01558, "Storm Water Pollution Prevention".

Security

Project scope has been coordinated with the site technical security office, and there are no technical security issues that need to be captured in the design. Access to the Plant for design or construction activities will be by a security escort where applicable. Any changes in security requirements will be addressed upon official notification by NNSA, and will be factored into the project as applicable. Possible security issues are heightened security levels and commensurate restrictions on work at the site. Contingency measures are available to mitigate impacts if these conditions occur.

Technology and Research and Development

No technology issues have been identified.

Funding

No funding issues have been defined.

Operational Including Shutdown and Start Up Planning

No operational issues have been identified.

4.0 RISK AND ALTERNATIVES

Risk Analysis

An essential part of the project planning will be to ensure the risks associated with the project have been identified, analyzed, and determined to be either avoidable or manageable. Risk identification and analyses will be continued throughout the planning process, including the Acquisition Strategy (A/S) and the Project Execution Plan (PEP). Each of the identified risks will be monitored at each critical decision and review point to ensure they have been satisfactorily addressed, eliminated, or managed.

The risk assessment process was started before CD-0. Risk analysis process and conclusions were reviewed and revised during both the Independent Cost Review (conducted in January 2005) and the CD-1 preparation.

A formal risk assessment plan has been prepared for this project that includes strategies for mitigating the risks. For additional risk assessment detail, refer to the current version of the Risk Assessment Plan. In the assessment, a total of 11 risks were identified. Of the active risks, there were no High risks, 5 are Moderate, and 5 are Low, based on the mathematical database (5X5 Risk Level Matrix).

Table 4 – Risk Summary

Category	High	Moderate	Low
Interface		1	1
Budget		3	1
Design			1
Security		1	
Safety			1
Environmental Health & Safety			1

The general conclusion of this analysis is:

The predominant consequence of the identified risks is a potential for cost and schedule increases.

Based on this analysis and conclusion, the following activities are recommended:

- The risks continue to be monitored and managed throughout the project.
- Continue to monitor and coordinate potential security risks.
- Coordinate with operations and maintenance to facilitate outages.
- Evaluate lessons learned and stress the importance of safe work practices.
- Monitor contractor performance to ensure safe work practices are followed.
- Inspect all work and material being installed for compliance.
- Ensures all adequate resources are available to implement those mitigation strategies that have been identified as Moderate and support alternative work locations in the event of a security event.
- Quantify any cost impact of the residual risks and include in the project cost estimate. Once baseline is approved, monitor and trend all deviations.

Technical Alternatives Analysis

Alternatives that cover the range of available technical approaches for future service are identified as follows:

Alternative 1 Do nothing defined as retaining existing system and performing repairs as required.

Alternative 2 Replace only onsite distribution system and relinquish ownership of offsite main to existing natural gas provider.

Alternative 3 Replace the existing DOE owned offsite gas main and onsite distribution system.

The advantages and disadvantages for each of these three alternatives are summarized in Table 5, below.

Table 5 – Alternative Advantages/Disadvantages Summary

ALTERNATIVE ANALYSIS		
Alternative	**Advantages**	**Disadvantages**
1 – Do Nothing	• No construction cost • No impact on users or interruptions in plant operations during upgrade of system • No construction risks • No immediate public relations concerns with offsite landowners • No Environmental Assessment required	• Life Cycle Cost PV is $13,216,552 • Unacceptable environmental risk • Unacceptable personnel safety risk • Unacceptable risk of system failure, particularly to those portions of pipeline currently located in SWMU, Radiological Controlled Areas, Confined Space, and congested plant areas • Fails to eliminate $3.1M Deferred Maintenance backlog • Does not comply with DOE “Useful Life” requirements • Does not update deteriorating, obsolete, and inadequate system • Potential unacceptable loss of natural gas from aging pipeline • Minimal system reliability • Dedicated line for NNSA service to site is not available • Remote operation for shut-off in the event of a leak is not available

ALTERNATIVE ANALYSIS		
Alternative	**Advantages**	**Disadvantages**
2 – Replace only onsite distribution system and relinquish ownership of offsite main	• Life Cycle Cost PV is $8,228,206 • Minimal impact on plant-wide users • No impact to offsite users • Eliminates $3.1M Deferred Maintenance backlog • Reduces Preventative Maintenance cost • Utilizes latest equipment technologies • Reduces risk of personnel safety issues • Complies With DOE "Useful Life" Requirements • No immediate public relations concerns with offsite landowners • No Environmental Assessment required • Improves reliability of distribution system (onsite) • Reduces risk of system failure for portions of pipeline currently located in SWMU, Radiological Controlled Areas, Confined Space, and congested plant areas	• Repair costs over 25 years would have to be "accepted" by Atmos as part of the ownership transfer agreement for offsite portion of main line • Construction risks • Unacceptable environmental risk • Unacceptable personnel safety risk • Risk of site impact during distribution system replacement • Continued unacceptable risk of system failure from deteriorating gas main supply • Does not update deteriorating, obsolete, and inadequate system • Potential unacceptable loss of natural gas from aging pipeline • Minimal system reliability • Eliminates NNSA's control over gas main taps, sizing, reliability, and replacement schedule for supply line, jeopardizing site's ability to meet future needs for natural gas demand • Eliminates NNSA's ability to negotiate with other natural gas providers to achieve better gas prices • Dedicated line for NNSA service to site is not available • Remote operation for shut-off in the event of a leak is not available
3 – Replace Gas Main & Distribution System at Plant (offsite & onsite)	• Excellent system reliability • Eliminates $3.1M Deferred Maintenance backlog • Significantly reduces Preventative Maintenance cost (approximately $130K operating and maintenance cost over next 25 years) • Utilizes latest equipment technologies • Reduces risk of unplanned outages • Efficient Use of Capital Resources • Complies With DOE "Useful Life" Requirements • Reduces risk of system failure for portions of pipeline currently located in SWMU, Radiological Controlled Areas, Confined Space, and congested plant areas • Eliminates confined space entries for valve access • Eliminates maintenance work in radiological area associated with pipeline • Reduces environmental risk • Reduces personnel safety risk • Reduces probability of natural gas loss from pipeline • Dedicated line for NNSA service to site • Improved safety conditions due to remote operation for shut-off in the event of a leak	• Moderate construction cost estimated at $5.5M-$6.7M • Construction risks • Risk of site impact during replacement • Public relations concerns with offsite landowners • Environmental Assessment is required

In addition to analyzing the advantages and disadvantages for each alternative, the project team completed a Life Cycle Cost (LCC) analysis as summarized in Table 6, below.

Table 6 – Life Cycle Cost Analysis Summary

	Alternative 1- Do Nothing	Alternative 2- Replace Onsite Only	Alternative 3- Replace Onsite & Offsite
Total Project Cost	$0	$4,700,000	$8,856,000
Total Maintenance & Operations Cost (25 yrs)	$4,597,650	$4,597,650	$4,597,650
Total Failure Repair Cost (25 yrs)	$17,634,946	$671,232	$671,232
Total Life Cycle Cost Summary	$22,232,596	$9,968,882	$14,124,882
Present Value, Discounted 2.95%	**$13,216,552**	**$8,228,206**	**$12,132,574**

Assumptions used to develop the LCC for each alternative are as follows:

- Discount rate of 2.95 percent, per OMB Circular A-94.
- Useful life of 25 years.
- Total project cost of $8.856M for replacing on-site and off-site gas distribution.
- Total project cost of $4.700M for replacing on-site gas distribution.
- $94K per year for on-site gas distribution operations ($80K) and maintenance costs ($14K). It is assumed this cost will remain constant for all alternatives.
- $83K per year for off-site gas distribution operations ($63K) and maintenance cost ($20K). It is assumed this cost will remain constant for all alternatives.
- Maintenance and Operations costs for all alternatives were based upon HDPE pipe replacement (see Additional Alternatives Considered below, on page 13)
- Cost of failures is assumed to be approximately $300,000 per failure.
- Projection failures for Alternative 1, Do Nothing, were estimated using information from a previous HPFL LCC analysis that was based on information from the book "Control of Pipeline Corrosion," by A. W. Peabody, and statistical software, TableCurve. TableCurve has different methods for determining the best fit line of logarithmic data using different equations: y=ae(bx), lny=a+bx, and weighted lny=a+bx. The most conservative projected failures line (weighted lny=a+bx) was used for this LCC analysis.
- For Alternative 2, it is assumed that when DOE/NNSA relinquishes ownership of the off-site main, DOE/NNSA would not be responsible for repair costs.

All of the alternatives were evaluated against the LCC analysis, risk analysis, and major functional and operational requirements. The team chose to use a three-step process that develops selection criteria, weighs each criterion against each other, and then evaluates each alternative against each criterion. The resulting weights and relative scores are shown in Tables 7 and 8, below.

Table 7 – Alternatives Analysis Matrix

	Monitoring (2.6%)	Maintainability (11.7%)	Environmental (5.2%)	Efficiency (3.9%)	Reliability (11.7%)	Safety (13%)	Risk (11.7%)	Life Cycle Cost (9.1%)	Control (10.4%)	Security (9.1%)	Meets Requirements (11.7%)	Total
	a	b	c	d	e	f	g	h	i	j	k	
Criteria Weight	2	9	4	3	9	10	9	7	8	7	9	Total
Alternative 1 Do Nothing	4 / 8	1 / 9	4 / 16	3 / 9	1 / 9	1 / 10	1 / 9	1 / 7	4 / 32	10 / 70	1 / 9	188
Alternative 2 Replace Only On-Site Distribution Lines	4 / 8	8 / 72	6 / 24	6 / 18	4 / 36	5 / 50	3 / 27	3 / 21	1 / 8	1 / 7	5 / 45	316
Alternative 3 Replace Gas Main & Distribution Lines at Pantex (On-Site & Off-Site)	8 / 16	9 / 81	7 / 28	10 / 30	10 / 90	10 / 100	8 / 72	2 / 14	9 / 72	10 / 70	10 / 90	663

These results are also expressed graphically in Table 8, below.

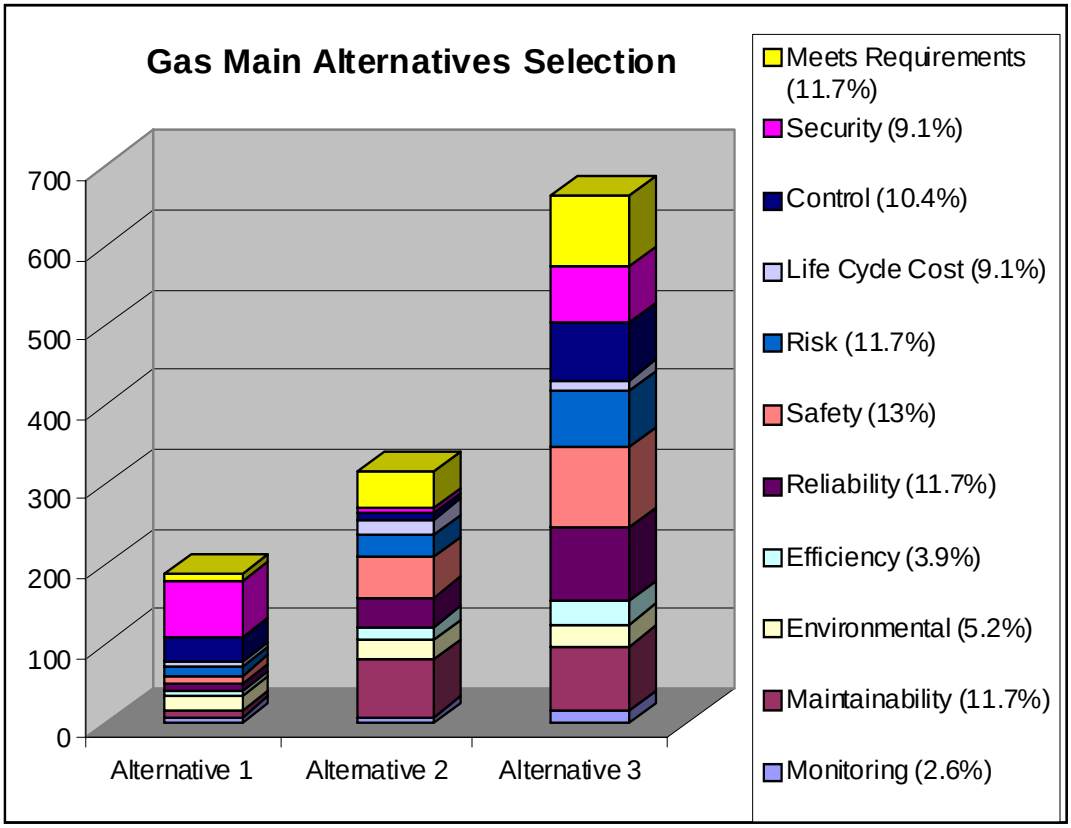
All values assigned to the alternatives selection matrix were derived by project team consensus and reviewed and approved by PXSO.

- **WEIGHT**: The number in the colored box is the weight assigned to the criteria. The weight was assigned on a 1:10 basis, 1 being the lowest and 10 being the highest. The percentage derived for each weighted criteria was calculated based on the individual criteria weight divided by the total of all criteria weights. For example: Safety was assigned a criteria weight of 10 by the team. The total of all criteria weights is 77, so Safety is 10/77 or 13% of the overall decision weight.

- **IMPACT VALUE**: The number in the upper triangle is the impact value. This is the score assigned to the impact the alternative has on the criteria. The impact value was assigned on a 1:10 basis, 1 being the lowest (does not meet criteria) and 10 being the highest (fully meets criteria/need).

- **SCORE**: The weight multiplied by the impact value equals the score assigned for each criteria for each alternative. This number is shown in the lower triangle. These scores then make up the values used in the stack chart, so that each "stack" equals the TOTAL score for each alternative.

Table 8 – Alternatives Analysis Graphic



Based upon the information evaluated as presented above, the project team elected to develop Alternative 3. The overall benefit to the government was the basis of this decision, rather than cost alone.

Alternative 1 was deemed unacceptable due to the number and severity of unacceptable risks associated with a pipeline failure that would be an increasing possibility as the pipeline continued to age and deteriorate. Additionally, this alternative does not meet goals to reduce the deferred maintenance backlog, reduce preventive maintenance costs, increase system reliability, and does not comply with DOE "Useful Life" requirements for the gas main and distribution system; this system has already exceeded the 25-year service life (DOE Accounting Handbook) by approximately 25 years. Furthermore, this option would not allow the plant to meet increased natural gas demand for future needs, nor would a dedicated line with isolation capability be available. The project also had the highest LCC of the three alternatives considered.

Alternative 2 was deemed unacceptable due to the number and severity of unacceptable risks associated with a pipeline failure that would be an increasing possibility as the offsite gas main pipeline continued to age and deteriorate. This alternative does not significantly increase system reliability because the offsite portion would continue to deteriorate and NNSA would no longer have control over gas main taps, sizing, reliability, and replacement schedule for supply line. This would virtually eliminate the possibility of NNSA locating a dedicated pipeline with isolation capability of sufficient size to meet future needs for natural gas demand for the Plant. Additionally, NNSA would lose the ability to negotiate with other natural gas providers to achieve better gas

prices in the future. This alternative also relies heavily upon the assumption that the current natural gas provider would be willing to accept ownership of and liability for an aging asset with little forecast service expansion. Although this alternative does provide the lowest LCC, it does not provide the best value to the government.

Alternative 3 is recommended as the preferred alternative because it is the most efficient use of capital funds that also meets the safety and technical objectives required by Plant operations. The recommended approach in this project meets the requirements to address all identified concerns in the Gas Main and Distribution System at the Plant. The estimated initial investment/construction cost of $5.5M-$6.7M is based on the updated detailed cost estimate as validated by an Independent Cost Review conducted in January, 200X. This alternative places the entire burden of construction cost for a new line on site. In addition, The Plant would maintain liability for any problems that arise. Even though this alternative does not have the lowest LCC, it is considered the best option because it provides the most value to the government. NNSA could negotiate for better gas prices in the future, as it has done in the past, saving money in the long run. In addition, NNSA would not have to place any taps on this line, leaving it completely dedicated to the Plant. Furthermore, a new Motor Operated Isolation Valve (MOIV) would provide the capability of remotely operating the valve to quickly isolate the natural gas supply onsite in the event of a leak or other incident.

Additional alternatives that were evaluated include the following alternative studies:

Alternative methods for replacing the gas main and distribution lines were explored. The use of a graded approach to replace the most critical or deteriorated lines was explored. This alternative would allow replacement of the worst portions of the lines and deteriorated lines that provide natural gas to the most critical areas. The remainder of the system not selected for replacement would continue to age and be replaced on a "replace when fails" basis. At present, this alternative is not advisable due to the continuing safety risks and maintenance needs for sections not replaced; this alternative does not improve the reliability of the system and the risk of unplanned outages to plant operations is unacceptable.

Alternate pipeline materials were also explored. The current gas main is constructed of steel, and it has proven to be a durable, long-lasting material. However, steel is heavy, expensive to purchase and install, and expensive to maintain because it requires the use of a cathodic protection system. The Plant gas main and distribution system operates in the low to mid pressure range, so a material as strong as steel is not required. High Density Polyethylene (HDPE) is a modern material that is lightweight, durable, non-reactive, and easy to work with. HDPE works well in low to mid range transmission and distribution systems, such as the one under consideration. HDPE is currently used for all new gas distribution projects on the Plant. HDPE is currently considered the best material option for this project, but this alternative will be further evaluated for Life Cycle Cost and Value Engineering during the design process.

Location Alternatives Analysis

The location alternatives for this project are limited. The distribution system is located on the Plant site to serve the existing equipment, and buildings that are in fixed locations, so there were no other practical location alternatives available for consideration.

Several location alternatives for the gas main supply to serve the Plant were considered. In addition to the existing main line that currently supplies the gas main, three alternative transmission lines were researched for their ability to meet the Plant needs relative to this project. Options identified were:

- 24" line owned by Transwestern Pipe Line Company, which grazes the southeast corner of the Plant on the opposite side of Highway XX
- 12.75" line owned by Oneoke Westex Transmission, also at the SE corner of the plant on the opposite side of Highway XX, in the same location
- 12.75" line owned by Oneoke Westex Transmission, located at the closest point about 8000' from the west, northwest side of the Plant.

The two 12.75" lines owned by Oneoke were considered unacceptable location alternatives because the Plant requires at least a 10" line to meet its natural gas requirements. It was assumed that Oneoke could not meet its current demand on these lines with such a large, new tap.

The gas distributor was contacted regarding capacity of the 24" line. The distributor stated that it had already tried to tap into the 24" line with a tap smaller than that required by the Plant, and had been rejected due to insufficient capacity. Therefore, this location alternative was also deemed unacceptable.

As a result, the remaining gas main supply location—the existing supply line for the Plant—was considered the only viable alternative.

Acquisition Alternatives Analysis

Various alternatives have been considered with respect to this project. The alternatives considered are Federal led or utilizing the current Management and Operating contractor. The Federal led alternative consists of the Site Office relying on either the U.S. Army Corps of Engineers (USACE), directly contracting with a qualified Architect-Engineering (A-E) firm and qualified construction company, or directly contracting with a Design-Build (D-B) firm to perform the required services. Due to the simplicity of the design and the relatively advanced level of development of the construction scope requirements, The site office recommends the use of a D-B firm through a Federally led acquisition.

5.0 BUSINESS AND ACQUISITION APPROACH

Contract Administration

The Site Office will manage and administer the D-B, and/or other service type contracts and have the following responsibilities:

- Develop the Request For Proposal (RFP) for the design and construction with the Project Management Team and submit to NNSA Service Center for issue.
- Attend Project Team and construction progress meetings.
- Conduct pre-proposal meetings.
- Conduct price negotiations.

Acquisition and Contract Types

The NNSA Service Center will award and the Site Office will administer and manage the prime contract for this project with technical support from the USACE and the Managing and Operating (M&O) contractor. Construction and Technical Management of the D-B project will be performed by the USACE. Critical components of the project will be subject to M&O review and support during construction. Memorandum of Understanding (MOU) will be initiated between all parties. MOU will outline roles and responsibilities for each participating party to include submittal reviews, quality assurance, contracting officer duties, contract administration, construction administration, and oversight, at a minimum.

A competitive selection of the D-B firm for project will be based on demonstrated technical expertise, qualifications, capability, and resource availability to meet schedule requirements. The final solution may use price as a consideration from finalist firms, as determined appropriate. Price will be negotiated as a Firm Fixed Price (FFP) basis with technical criteria being weighed more than cost. The FFP D-B contract will include all design, materials, equipment, and services necessary to achieve a complete and functional utility meeting all required criteria.

The Site Office, in conjunction with the NNSA Service Center, NA-50 and NA-63, and support from the USACE, will actively search for prospective small business contractors by using electronic sourcing to include the U.S. Small Business Administration's Central Contractor Registration Database and Pro-Net. The D-B contract will provide Preliminary Design, Detailed Design, construction services and engineering support, as well as closeout and post-construction services.

Competition

The D-B contract will be competitively solicited and awarded to the Small Business Administration Contractor Community first with other contracting entities considered if Small Business Administration contracting is not successful. Historically, construction contracts in this range do not attract architect/engineer and general contractors beyond the local area. Solicitation of general contractors will be made within the region, with consideration for small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business and women-owned small business concerns. The award will be based on the best value determined from an evaluation of technical criteria such as technical qualifications, past performance and experience, as well as cost considerations.

It is anticipated that the D-B project will be openly competed to both small and large business firms, with the large business firms being considered if not successful with small business firms. Awards to a large business above $500,000 ($1,000,000 for construction) require a Small Business Subcontracting Plan. The plan must include goals for the utilization of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The goals, if necessary, shall be negotiated by the Site Office Contracting Officer, with support from the USACE, and approved by NA-52 and NA-63.

The site is located in an area where subcontractor resources are limited in some trades and competitive bidding in this area has been increasingly difficult. Due to this fact, the Site Office and the USACE will be working with local and regional Association of General Contractors (AGC) and Construction Specifications Institute (CSI) affiliates as well as the Panhandle Regional Planning Commission (PRPC) in order to solicit and develop contractors from outside the area.

6.0 MANAGEMENT STRUCTURE AND APPROACH

Identify IPT, Organization Structure and Staffing Skills

Table 9, below the project organization chart, identifies DOE/NNSA Management Team members.

Project Organizational Structure

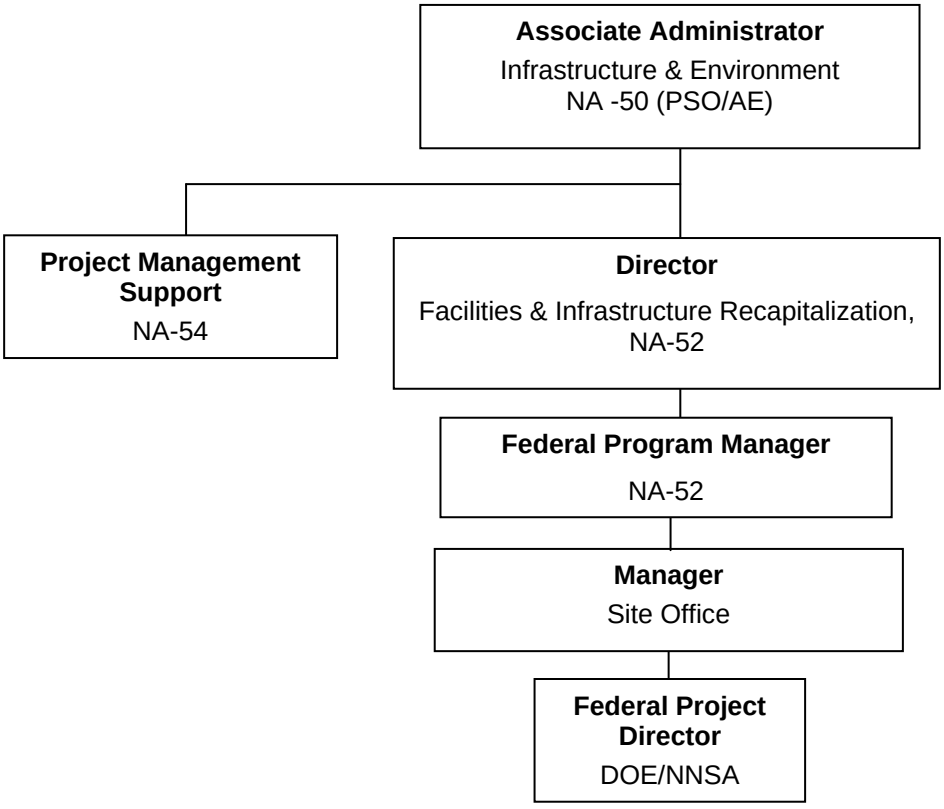


Table 9 – DOE/NNSA Management Team Members

DOE/NNSA MANAGEMENT TEAM MEMBERS			
POSITION	NAME	TELEPHONE	ORGANIZATION
Program Sponsor			
Program Manager			
Technical Director			
Site Office Manager			
Federal Project Director			
Site Office AB Staff Member			
Contracting Officer			
SS Team Member			
Order 420.1 Team Member			
NEPA Team Member			
Safety & Health Team Member			

The government's role relating to acquisition are summarized as follows:

- The NNSA Associate Administrator for Infrastructure & Environment approves the Acquisition Strategy.

- The Associate Administrator for Infrastructure & Environment chairs the Equivalent Energy Systems Acquisition Advisory Board and approves critical decisions for the project.

- The Federal Project Director acts as the single point of contact with the Plant organization and NNSA. He oversees the design, construction, and ES&H efforts performed by the M&O and the USACE and any subcontractors relating to the project.

The M&O Contractor under the DOE prime contract dated February 1, 200X, will provide activities as described herein and in accordance with the Memorandum of Understanding (MOU) to be established between M&O, the Site Office, and the USACE.

Approach to Performance Evaluation and Validation

Project Controls

DOE Order 413.3, Program and Project Management for the Acquisition of Capital Assets, will be used as the primary management tool and guideline to execute the project.

The Site Office and M&O are implementing a certifiable EVMS that is in compliance with ANSI/EIA-748-A-1998. This EVMS will be certified in the XX quarter of FY 200X, and will be implemented and used to monitor and evaluate project progress and performance for the duration of the project.

An activity based Network Analysis System (NAS) including estimated costs and resources will be utilized to manage this proposed project. Throughout the various phases of this project, the NAS will be updated and refined to reflect the sequence of activities required to be accomplished within specified milestone completion dates and planned costs. The NAS will be updated monthly to document progress with respect to performance durations and cost. The Site Office will coordinate the preparation and submittal of any status reports required by DOE/NNSA Headquarters.

Change Control

The Site Office has an established change control process. This process will be utilized to manage any required changes to cost, scope, or schedule.

Project Reporting

Monthly reporting will be accomplished through the DOE Project Assessment and Reporting System (PARS). This project is below the $20 million threshold but the project management system used by the contractor is based on earned value (EV), calculated by PARS.

PXSO will use the FIRP monthly/quarterly reporting system and all projects will be reviewed monthly and quarterly as prescribed by DOE/NNSA Headquarters guidelines.

Project Meetings

The FPD will conduct regularly scheduled meetings and reviews to discuss project technical scope, schedule, and cost status, and any emerging issues that may have an adverse impact on technical scope, schedule, or cost. Participants will include the Integrated Project Team representatives as deemed appropriate.

Interdependencies and Interfaces

The Site Office will utilize the M&O contractor and the USACE to coordinate any required interdependencies or interfaces required with other contractors at the Plant.