



ENVIRONMENTAL EQUIPMENT QUALIFICATION CAPABILITIES

"Cost Effective Solutions Through Innovation"

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#### **1. COMPANY IDENTIFICATION**

Full Name of Company:	Naderi Engineering, Inc.
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Prime Contact:	Mr. Ali Naderi
Position:	President, Project Manager

Naderi Engineering, Inc. is a consulting company with its main office in Emeryville, California. The Company was founded in 1994 to provide cost effective solutions in regulated industries including nuclear industry with its center of excellence in Environmental Qualification, Procurement, Configuration Management and the related engineering services. The Company is currently 4 0 professionals strong.

The founder of the Company, Mr. Ali Naderi is a seasoned EQ Specialist and a Plant Engineer. Prior to starting the company, Mr. Naderi worked for a major nuclear consulting company for fourteen (14) years. During this time, he assisted numerous utilities with establishing and maintaining their EQ program, procurement engineering and configuration management.

# 2. TECHNICAL EXPERTISE

Naderi Engineering's technical strength is in providing services in the areas of Environmental Qualification, Procurement Engineering and Configuration Management.

## ENVIRONMENTAL QUALIFICATION

Naderi Engineering provides EQ services to nuclear industry in accordance with the regulatory commitment levels for each plant and by utilizing industry proven engineering and management approaches and methodologies. Our strong background in interpreting licensing commitments in EQ assists the utilities with creating policies and programmatic procedures which will satisfy the NRC's requirements and address the related industry and engineering issues.

Naderi offers the management and staff who have experience in creating a number of well organized and managed EQ projects. Our experts will assist the utility in developing the technical and management elements of the program to ensure the projects head in the right direction. A summary of our EQ Management and Project Engineering experience is presented in Section 4.0 of this Brochure.

We support our clients with all aspects of qualification of safety related equipment, including, but not limited to the following areas:

- EQ Masterlist Development
- EQ Package Documentation
- Plant As-Built Walkdowns
- Plant Life Extension
- EQ Test Program Development
- Regulatory Audit Support
- EQ Program Assessments
- Operability Justifications
- Disposition of Non-Conforming Conditions
- Licensing Support
- Procedural and Design Basis Compliance
- Mechanical EQ
- Seismic EQ

We have extensive experience in implementing projects in accordance with I.E. Bulletin 79-01B (DOR Guidelines), IEEE 323-1974, NUREG 0588, Cat. I & II and the EQ Final Rule in 10CFR 50.49 and Reg. Guide 1.89. We assist utilities with determining and/or implementing guidelines which not only deal with treatment of new procurements, but also old vintage and diversity of equipment manufacturers.

Naderi Engineering routinely provides services in the area of material analysis and failure modes and effects analysis for our clients. We have been involved with a number of large DOR type projects as well as mechanical equipment qualification projects. Our staff is experienced in establishing acceptance criteria for the parts as well as utilizing extensive material properties data banks in performing the evaluations. Naderi is also experienced in evaluating the use of commercial grade items for safety related parts.

Naderi Engineering offers experts in handling special projects such as the EQ issues for cables, MOVs, moisture intrusion and response to new EQ issues.

We assist utilities with establishing common processes and criteria for operating units, defining EQ design and licensing basis for each station and develop EQ tasks, schedule and budget. Naderi is also prepared to provide EQ training modules and conduct training for the utilities' personnel.

Naderi Engineering provides staff support for determining those plant conditions which may result in material upgrade and plant modifications. We will provide EQ support in preparation and review of design modifications in all engineering disciplines.

## **3. TECHNICAL RESOURCES**

Naderi Engineering is currently 40 professionals strong. We also have access to a large pool of professionals in our areas of expertise. We will provide resumes of individuals per our clients' specific needs.

Naderi Engineering offers staff support at our clients offices and at the sites in all engineering disciplines.

For managed tasks, Naderi Engineering will mobilize a project team which will include a Project Engineer along with the required staff support. The Project Engineer will be responsible for the quality of the work as well as the budget, schedule and technical interface with our client.

## 4. ENGINEERING SERVICES / RELATED EXPERIENCE

Naderi Engineering was founded in 1994 to provide engineering services in EQ Procurement and Configuration Management to the nuclear industry. During this relatively short period of time, the Company has successfully undertaken significant projects and has executed them well and has gained industry recognition. We have listed the relevant Naderi projects below.

At Naderi Engineering, we cultivate a culture which provides motivation, quality and success for our professionals. However, our ability to perform quality work should not only be viewed by what we have achieved as a company but as what our key professionals have achieved as individuals elsewhere. That is why we have taken the liberty to also list significant projects which have been accomplished by our key project personnel during their professional tenure. This information will provide our clients with the quality of the people we propose.

### NADERI ENVIONMENTAL QUALIFICATION EXPERIENCE

 <u>Nebraska Public Power District (NPPD) – Cooper Nuclear Station</u> Naderi Engineering is currently assisting the utility in the following areas; expert review of the EQ Packages to identify and address evaluation deficiencies, owner review and acceptance of EQ HELB analysis performed by outside contractor and development of EQ response to the programmatic issues.

Contract Award:	\$1.5Mill
Project Duration:	6/2001 to Present (Projected Completion by 7/2004)

 <u>Dominion Nuclear Connecticut – Millstone Plant Units 2 and 3</u> Naderi has been assisting Millstones Units 2 and 3 with EQ evaluation, Masterlist reduction project and special EQ tasks.

Contract Award:	\$350K
Project Duration:	1/2001 to Present

3. <u>Calvert Cliffs Nuclear Plants Incorporated (CCNPPI) – Calvert Cliffs Nuclear Plant</u> Naderi completed an EQ Plant Life Extension Project which encompassed revisions to all EQ cables and electrical penetrations files to extend the qualified life from 40 years to 60 years in support of the license renewal.

Contract Award:	\$250K
Project Duration:	9/2000 to 6/2001

4. <u>Ontario Power Generation (OPG) – Pickering/Darlington Nuclear Stations, Ontario,</u> <u>Canada</u>

Naderi Engineering provided EQ expertise to Ontario Power Generation Company in areas of accident radiation and room condition analyses, cable and motor test specification development and EQ package production.

Contract Award:	1 <b>Mill</b> <sup>+</sup>
Project Duration:	7/1998 to 2001

5. Ontario Power Generation (OPG) - Corporate Office, Ontario, Canada Ali Naderi was invited by OHN as an expert to assess the OHN's EQ and Procurement Programs. The assessment program was performed for the OHN's Engineering Department under the direction of Executive Vice President and Chief Nuclear Officer, and in accordance with the OHN's Independent Integrated Performance Assessment Process (IIAP). The work encompassed all aspects of EQ program, procurement and design basis/configuration controls of the activities in the Head Office as well as all generating stations.

Contract Award:	\$20K
Project Duration:	4/97 to 7/97

3. <u>Dominion Nuclear Connecticut - Millstone Unit 3, Waterford - Connecticut</u> Naderi Engineering was awarded the contracted to manage and execute the EQ upgrade Program at Millstone Unit 3 for EQ Masterlist, Walkdowns of EQ equipment and Preparations of EQ Packages. The project consisted of the following:

Validation of the EQ Masterlist by providing the basis reports in form of Engineering Evaluations for each safety significant system and reduction of certain equipment from the EQ Program. Naderi Engineering also developed the EQ As-Built Verification Forms and conducted plant walkdowns for all equipment within the program and dispositioned the field non-conforming conditions. We also completed 120 EQ Packages which fully addressed the qualification of equipment along with resolution of the industry issues.

Contract Amount:	\$1.5 Mill.
Project Duration:	12/96 to 1/99

#### 4. <u>GPU Nuclear, New Jersey</u>

Naderi Engineering assisted the utility with expert reviews of the EQ documentation packages and resolution of potential deficiencies.

Contract Amount:	\$100K
Project Duration:	1/99 to 4/99

5. <u>Northeast Utilities, Millstone Units 1, 2 and 3 & Connecticut Yankee - Connecticut</u> Naderi Engineering was subcontracted to prepare approximately 200 Test Report Assessments (TRAs) for the EQ Programs in all three Millstone units as well as Connecticut Yankee. TRAs are EQ packages which document the evaluation of test reports independent of each unit. The purpose of establishing TRAs was to create a consistent basis in evaluating the test reports and reduce repetitive evaluation of the same test reports amongst units.

Contract Amount:	\$150K
Project Duration:	4/94 to 2/97

6. <u>Northeast Utilities, Millstone Unit 2, Waterford - Connecticut</u> Naderi Engineering was in charge of analyzing the data collected as a result of area temperature monitoring effort and determining realistic normal operating temperatures for use as an input in the EQ Program. The task was to verify the integrity of measuring instruments and to analyze the volume of data collected in various areas of the plant including the Containment. The results demonstrated lower normal operating temperatures which will result in longer qualified lives of EQ equipment. The work was done under Naderi QA Program.

Contract Amount:	\$10K
Project Duration:	10/97 to 1/98

# 5. QUALITY ASSURANCE

Naderi Engineering has Quality Assurance Program. Naderi Engineering's Quality Assurance (QA) Program fully complies and implements the requirements of Title 10 Code of the United States Federal Regulations, Part 50, Appendix B as well as ANSI, ASME and Regulatory Guides applicable to organizations performing design and engineering analysis for nuclear applications.

Naderi's QA Program typically applies to the managed tasks. Staff support project are normally covered under our clients' QA programs.

Mr. Tony Chen is the Naderi's QA Manager. Mr. Chen has more than 20 years of experience in Quality Assurance program development, management, implementation, QA audits, training of ISO 9000 Quality systems and nuclear quality programs. He was previously the QA Manager for ABB Impell and Vectra Technologies.

Naderi's QA Program has been reviewed and accepted by utilities such as Dominion Nuclear Connecticut and Calvert Cliffs Nuclear Power Plants, Inc.