

# **AQUARIUS MARITIME CONSULTANTS, LLC.**

Hampton Roads, Virginia: (757) 615-4273 Houston, Texas: (713) 898-1151 www.aquariusmaritime.com

# **COMPANY OVERVIEW**

# **TABLE OF CONTENTS**

Company Focus	
Company Services	
Principal Personnel	
References	

# **COMPANY FOCUS**

Aquarius Maritime Consultants, LLC is a full service marine surveying company experienced in the multiple aspects of trans-modal cargo transportation operations.

The staff includes principal personnel and associates whom together hold an extensive range of experience within the marine, rail and over the road environment.

The principal expertise of our company focuses on, but is not limited to, Marine Consulting and Surveying, Marine Engineering, Risk Management and Cargo Loss Control.

# **COMPANY SERVICES**

Services rendered by Aquarius Maritime Consultants, LLC to our clients include, but are not limited to, the following:

- Ballast Calculations
- Cargo Loading/Discharge Surveys
- Deadweight Surveys
- Hold/Hatch Surveys
- Marine Warranty Surveyors
- Port Captains
- Structural Design/Inspection
- Trip in Tow Surveys

- Barge/Ship Condition Surveys
- Damage Surveys
- Heavy Lift/Project Cargo Surveys
- Marine Engineers
- Naval Architects
- Rail Car Tie-down Design
- Seafastening Design/Inspection

# **PRICIPAL PERSONNEL**

## **RAJGOPAL S. RAO**

Mr. Rao has over twenty years experience in the marine transportation industry, including ten years in the marine surveying field. He has held the position of Vice-President of Operations for a leading marine surveying and consulting company. Mr. Rao is fully knowledgeable of IMO regulations as pertains to vessel safety and stability issues, ABS/DNV rules for hull structure, ANSI N14.24 regulations and 49 CFR Parts 392/393 FMCSA regulations.

In 2005 Mr. Rao received a letter of accommodation from the U.S. Army for outstanding work in the barge transportation of sensitive D.O.D. equipment.

#### AREAS OF EXPERTISE

Barge Roll On/Off Operations	Marine Heavy Lift Operations
Securing of Break Bulk & Project Cargo	• Usage of SPMT/Platform Trailers
Port Captaincy	• Rail car loading of "High/Wide" Cargo
<ul> <li>Securing Cargo on CMVs</li> </ul>	• Barge Transport of Radioactive Cargo

#### **RELATIVE EXPERIENCE**

Eagle Maritime Consultants, Inc.	1996 – 2006	
Joined as a staff Marine Surveyor in their Houston office and quickly demonstrated		
superior management and professional skills which lead to a promotion to Senior		
Marine Surveyor.		
In 2001 was promoted to Vice President of Operations, Houston.		
In 2003 transferred to Virginia Beach, VA as Vice President of Operations, East		
Coast Region.		
Tanker Pacific Co.	1991-1995	
Sailed as 2 <sup>nd</sup> Officer and Chief Officer.		
Anglo Eastern Shipping Co and Tanker Pacific Co.		
Sailed as $3^{rd}$ and $2^{nd}$ officer .	1987-1990	
Scindia Steam Navigation Co.	1982–1985	
Trainag officer (Deals Codet)		

Trainee officer (Deck Cadet)

# EDUCATIONAL BACKGROUND

Technical Training : 1 Year as a Navigation Trainee Cadet 1980 – 1981 1982 – 1985 – Trainee officer (Deck Cadet), with Scindia Steam Navigation Co. 1987 – Obtained License as a 2<sup>nd</sup> Mate (Foreign Going) from Lal Bahadur Shastri Nautical College, Bombay , India. 1991 - Obtained License as a 1<sup>st</sup> Mate (Foreign Going) from Lal Bahadur Shastri Nautical College, Bombay , India.

## **THOMAS C. McDONALD**

Mr. McDonald has nearly thirty years experience in the marine transportation industry including five years in the position of Vice-President of Engineering for a leading marine surveying and consulting company. He is fully functional with AutoCad and various computer aided design programs for vessel motion analysis, structural and stability applications.

# AREAS OF EXPERTISE

- Securing of cargo in marine applications in accordance with IMO regulations
- Barge Roll On/Off Operations
- Marine Heavy Lift Operations in accordance with API Specifications
- Hull structural calculations in accordance with ABS and DNV regulations
- Barge Transport of Radioactive Cargo in accordance with ANSI N1424 regulations
- Port Captaincy
- Rail car loading/securing of "High/Wide" Cargo

## **RELATIVE EXPERIENCE**

#### Eagle Maritime Consultants, Inc.

Joined the company as a Senior Engineer. Developed company standards for marine seafastening and securing designs that are still used today. Carried out design applications of grillage supports for loading of heavy cargo onto desk structure of ships/barges. Developed the first computer aided vessel motion analysis program used in the company.

In 2001 was promoted to Vice President of Engineering. Continued the advancement of design criteria for loading and securing of specialized heavy cargo onto ship's and barges. Utilized experience gained in securing of specialized marine cargo to application of securing of over dimensional/weight cargo onto rail cars.

#### Independent Consultant

# Employed as a design consultant for various Mexican offshore companies. Major projects included the conversion of supply vessels to diving support vessels and development of barge deepwater mooring systems.

#### Tide Water Marine Service, Inc

From 1981 to 1990 held the position of Project Engineer. Major responsibilities included hull and mechanical design support for the new construction program of supply vessels, tugs and barges. From 1990 to 1991 held the position of Operations Manager in their Mexican division at which time was heavily involved with the load out and securing of deck sections and jacket sections onto barges.

#### McDermott Inc..

Responsible for dry docking and structural repair of marine equipment attached to the company's operation groups.

#### Geosource Shipyard (Harvey, LA).

# 1976-1978

1978-1981

1981-1995

#### 1995-1997

## 1997-2006

Assigned as a Staff Engineer. Major projects included the hull design for deck barges and inland drilling barges.

## EDUCATIONAL BACKGROUND

Graduated from Mississippi State University in 1976 with a Bachelor of Science Degree in Marine Engineering Technology.

# COMPANY SERVICES AND OVERVIEW

# PROJECTS

A brief summary and description of few of the projects that Aquarius Maritime has undertaken and completed successfully without incidents:

# **AEP AMOS Power Plant Upgrade:**

Aquarius Maritime was instrumental in planning and execution of loading transporting and discharging scrubber units for Absorber Towers at the said plant. The units which varied in weight between 100 to 300 Tons had dimension up to 100' x 72' x 42'. Aquarius Maritime was instrumental in the project right from barge selection to stowage planning, loading by roll on and discharging by roll off. Stowage planning and ballasting was critical as the units were transported from Mississippi to West Virginia with several narrow clearances under bridges along the Tom Bigbee and Ohio rivers.

# AEP SAMMIS Power Plant Upgrade:

Aquarius Maritime was instrumental in planning and execution of loading transporting and discharging scrubber units for Absorber Towers at the said plant. The units which varied in weight between 100 to 300 Tons had dimension up to 100' x 72' x 42'. AMC was instrumental in the project right from barge selection to stowage planning, loading by roll on and discharging by roll off. Stowage planning and ballasting was critical as the units were transported from Mississippi to Ohio with several narrow clearances under bridges along the Tom Bigbee and Ohio rivers. Discharge planning required a lot of innovative ideas as the only possible location was right alongside a major lock gate on the Ohio river. Aquarius Maritime was instrumental in this project right from the planning stages which included selection of roll off site.

# Florida Power & Light – Port St Lucie Nuclear Power Plant:

Aquarius Maritime planned and executed movement of three Reactor heads (350 Tons each) and two Steam Generators (650 Tons each) from the a/m power plant to Memphis TN, where the equipment was to be eventually disposed. Aquarius Maritime did all the design work required for stowage and tie down of the equipment. This was critical as all the equipment was still classified as radioactive and transportation criteria for stowage and securing had to comply with stringent American National Standards Institute (ANSI) requirements for transportation of Radio Active materials over open ocean waters.

# **Dominion Virginia Power – Surry Nuclear Plant:**

Aquarius Maritime planned and executed movement of one 550 Ton Stator Core from Surry, Virginia to Omaha, Nebraska. This was critical as all the equipment was still classified as radioactive and transportation criteria for stowage and securing had to comply with American National Standards Institute (ANSI) & DOT requirements for transportation of Radio Active materials over open ocean waters.

## Mirant Bowline Combined Cycle Plant re - location:

Aquarius Maritime Consultants was instrumental in planning and executing complete relocation of three HRSG Units (Each unit consisting of 16 bundles with an average weight of 170 Tons and dimensions of 65' x 9' x 14'), one gas Turbine (325 Tons), a gas Generator (365 Tons), one 600 kva Transformer (275 Tons). All equipment was transported by barge (300' x 100' x 20' – 3 shipments) from West Haverstraw (upstate New York) along the Hudson river and then open ocean transit all the way to Houston, Texas. All 51 pieces were loaded and discharged by roll on / roll off method. Aquarius Maritime did all the design work and calculations for the securing & stowage of subject project.

# **<u>B G & E (Constellation Energy) – Calvert Cliff Nuclear Power Plant.</u>**

Aquarius Maritime planned and executed movement of three Reactor heads (350 Tons each) and two Steam Generators (650 Tons each) from the a/m power plant to Memphis TN, where the equipment was to be eventually disposed. Aquarius Maritime did all the design work required for stowage and tie down of the equipment. This was critical as all the equipment was still classified as radioactive and transportation criteria for stowage and securing had to comply with American National Standards Institute (ANSI) requirements for transportation of Radio Active materials over open ocean waters.

# **CONOCO Philips – Wood River CORE Project.**

Aquarius Maritime Consultants was involved in reviewing, approving and monitoring movement of four Coke Drums (625 Tons Each) from the port of New Orleans, LA to the Phoenix Terminal located on the Mississippi river near Roxanna, IL. The movement involved monitoring discharge of the said Coke Drums from an ocean going vessel on to deck barges and subsequent discharge of the drums from the barge by roll off method at the said terminal.

In addition to the a/m specific projects Aquarius Maritime has been involved n the planning and execution of transport of several over dimensional heavy equipment, with weights up to 1000 MT, by barge with roll on / roll off being the primary method of load / discharge.

#### REFERENCES

Alliance International Forwarders

**Alligator Aggregates** 

American Bridge Co. American Crane

Anderson Trucking Services

**AXA Corporate Solution** 

**AON Jusch Huebener** 

**Argosy Barge Lines** 

**Babcock & Wilcox Power Generation** 

**Burkhalter Crane** 

**Bigge Crane & Rigging** 

**Bay Crane & Rigging Co** 

**Canal Barge Co.** 

Crane Rental Corp.

**David Winslow Barge Co.** 

DSV Air & SEA

**Dresser Rand** 

Deltak LLC

**Duferco Steel** 

**Energy Solutions** 

**Expeditiors of Washington International** 

**Emmeret International** 

**Edwards Crane & Rigging** 

Eastern Car Liners (ECL)

Fluor Corporation (Greenville, SC)

**Geo Logistics** 

**HLC Tugs** 

H Brown & Co

J Supor & Sons

Kuehne + Nagel Inc (Houston)

Mammoet USA

McDonough Marine Services Palletized Trucking RACE LLC UTC Overseas (Houston) UTC Overseas (Atlanta) UTC Overseas (Secaucus, NJ) UTC Overseas (Wilmington) Weeks Marine