

Client Name	:	Saudi Aramco
Contract Number	:	035/713-200/003
Project Title	:	BI-3728, Upgrade Firewater & Drainage Systems, Abqaiq Plants
Project Description	:	<p>This project will upgrade the existing integrated firewater/utility water system serving Abqaiq Plants by segregating the firewater system from the plant utility and community raw water system, and give priority to firewater requirements during a fire emergency.</p> <p>The existing unlined carbon steel piping system will be replaced with Reinforced Thermo-setting Resin (RTR) pipe.</p> <p>This project will also revamp existing instrumentation and controls, so that optimization of the firewater system can be achieved.</p> <p><u>Utility Water System:</u></p> <p>The project will provide the installation of cement lined carbon steel pipe for the new looped above ground utility water system. Nearly 200 utility water users will be connected to the system.</p> <p><u>Oily Water System:</u></p> <p>New Oily Water Sewer (OWS) gravity lines, sumps and manholes will be provided by this project. Installation will be both in existing plants with undersized/plugged facilities and for the five new sumps.</p>
Client Project Manager	:	M.H. Al-Hashim
Telephone No.	:	572-2700
Department	:	SAPD&C
ZATE Project Manager	:	H.L. Russell

Start Date	:	August 1996
Finish Date	:	May 1997
Total Project Design M/Hrs	:	30,487

Project Parameter:

Description of Proposed Facilities:

To meet this project's primary objective, the segregation of the firewater system from the utility water system, new equipment shall be placed throughout Abqaiq Plants and will include:

- o Replacement of carbon steel piping and above ground piping with buried RTR.
- o Installation of new firewater isolation valves & blinds.
- o Installation of new/relocated fire fighting equipment.
- o Performance testing instrumentation.
- o Instrumentation for pressure surveying of FW system.
- o Connection of BI-8916 flow balancing and tank level monitoring instruments to BI-3728 Control Systems.
- o MOV's at FW/RW pump suction and discharge manifolds at Booster Station No. 3.
- o Replacement of the existing 16" underground supply piping to the softeners.
- o Installation of a new cement-lined carbon steel utility header.
- o Connection to nearly 200 utility water users.

Client Name	:	Saudi Aramco
Service Order No.	:	004/713-800/007
Project Title	:	BI-8275, Upgrade Firewater System at Shedgum Gas Plant.
Project Description	:	Preliminary Engineering and Detailed Design
Client Project Engineer	:	Paul W. Blank
Telephone No.	:	574-4072
Department	:	SAPD&C
ZATE Project Manager	:	H.L. Russell
Start Date	:	July 1997
Finish Date	:	October 1998
Total Project Design M/Hrs	:	25,165
Duties and Responsibilities	:	

Provided Preliminary Engineering, Detailed Engineering and Procurement Assistance, and following were the responsibilities:

- Replacement of the below ground steel firewater piping with new Reinforced Thermosetting Resin (RTR) Piping.
- Segregation of the utility water system by installation of a new above and below ground distribution system.
- Isolation of the utility water system by a control valve which will close in the event of a pressure loss in the Firewater System.
- Replacement of the existing firewater system Post Indicator Valves (PIV's) with new ductile iron rubber lined butterfly valves.
- Replacement of existing plus additional fire hydrants, monitors and hose reels.
- Installation of a chlorination system for the water supply.
- Replacement of existing piping and valves in the pump suction and discharge systems.