

Adam I. Al Safran

Lead Project Engineer, Saudi Aramco Establishing a demolition programme for Saudi Aramco











Who we are "Saudi Aramco".

Story began with Demolition Industry

Preparation to Select Demolition Contractor

EDA Study Tour in Japan

Contracting strategy for Demolition ASL Tank B

Develop Demolition and Decontamination procedures

Demolition Team

Current Situation of Demolition Industry at Saudi Market

Saudi Arabia market for Demolition Industry

What we are looking from Global Demolition Industry

Who we are "Saudi Aramco"

We're a leading producer of the energy and chemicals that drive global commerce and enhance the daily lives of people around the globe.

From our proven upstream capabilities and our strategically integrated global downstream network, to our cutting edge sustainability technologies and our foremost organizational capabilities, we've created an unsurpassed value engine that places us in a category all our own

Starting with just a small group of intrepid explorers, our history goes back more than 80 years to the sands of the Saudi desert.

In 1938, the foundation of the future prosperity of Saudi Arabia and The success of Saudi Aramco were realized with the commencement Of commercial oil production from Dammam No. 7 — the aptly named "Prosperity Well."



Where Energy Is Opportunity - Saudi Aramco



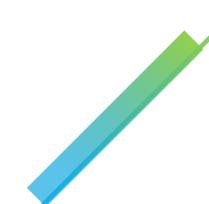
Story began with Demolition Industry

- ASL Tank B is 1 million barrel of crude with 106 meters dimeter and 22 meters height equipped floating roof (plate thickness varies from 22mm to 47 mm)
- ✓ Mistakes/incident occurred
- \checkmark Testing local Demolition Industry
- ✓ Top Management Directions to stop the Local Demolition Contractor



Preparation to Select Demolition Contractor

- Extensive research of Demolition Contractor Company profiles (150≥) in different countries from USA, Europe & Australia.
- Selected and communicated with the Thirty Five Companies with experience in Industrial type Demolition.
- A total of Fifteen companies passed the selection criteria with PQQ.
- Six companies were showed interested to preform the tank demolition
- Technical and Budgetary quotations were received.
- Attended the "2019 EDA Study Tour" in Japan with the European Demolition Association (EDA) to meet with major demolition companies, leaders, facilities visit, demolition equipment and attachments.
- Four Demolition Contractors(CBI, Wreckers, Despe and Martens Demcom) visited ASL Tank 'B' and submit new technical and budgetary quotations.
- Search for a consultant familiar with developing demolition procedures to support the approval of the method statement.



EDA Study Tour in Japan

The European Demolition Association, EDA, organized a new Study Tour, a professional trip to discover the state of art of the Japanese demolition industry, the disaster response strategies and the circular economy methodologies implemented for demolition and recycling in Japan.

The EDA Study Tour 2019 started and ended in Tokyo, Japan last May 19 to 24, and included the travel to several cities and locations, to visit (throughout Japan) factories, job sites, equipment demos and other relevant experiences for demolition professionals.



Contracting strategy for Demolition ASL Tank

B

- Procure global specialized demolition contractor
- Hire reputable Consultant demolition contractor with experience in vessels and tanks
- Procure chemical cleaning contractor (decontamination) to take care of contamination (local contractor)
- □ Hire firefighting company to support construction site During demolition activities
- Concentrate only on tank body demolition and postponed the foundation, damage piping and soil treatment.
- Establish partnership between global specialized global specialized and some reliable local contractors
- Secure approval form top management for the strategy



Develop Demolition and Decontamination procedures for ASL Tank B

- Hire sound demolition Consultant with experience in vessels and tanks
- Conduct a (HAZDEM) to identify the risks and the mitigation plan to minimize them.
- \checkmark Develop well written procedures for demolition ASL Tank B
- Develop method of statement for different phases of demolition and decontamination
- ✓ Get approval from Facility Proponent, Loss Prevention Department to commence the demolition

Demolition ASL Tank B Team

- Saudi Aramco project management team (SAPMT) Project Manager
- ✓ Wreckers Dismantling as main Demolition contractor
- $\checkmark\,$ RVA group was hired as demolition consultant
- ✓ Manifa is the Saudi partner for Wreckers Dismantling
- ✓ Manifa is the chemical cleaning company, civil and logistic works
- \checkmark Britam Arabia is the firefighting company
- ✓ Volvo excavator (EC750-HRD) was selected as main shear cutter



/ RVA GROUP



5 . October 2019 Demolition Program in Saudi Aramco



Execution plan for ASL tank Demolition

- Demolition floating roof completely using small excavators
- Decontamination the tank by chemical cleaning
- ✓ Demolition the tank shell from top to down by high raise excavator
- Demolish thicker plates and bottom plate by Hydro-cutting or torching



Current Situation of Demolition Industry at Saudi Market

- inadequate HES best practice
- Missing the execution plan
- Wrong demolition equipment

utilization



1. Demolition a bridge at Jeddah city





2. Explosive demolition at Makkah city



3. Demolition heritage building at Jeddah city

Saudi Arabia market for Demolition Industry

- Mothballed facilities inside urban Areas.
- > Old Schools, Buildings

- Pipings, Vessels
- Old Airport, Palaces, Historical Buildings











What we are looking from Global Demolition Industry

- ✓ Their presence and expertise in the local market.
- ✓ To develop the Best Practice in Demolition at Saudi Arabia market.
- Provide demolition equipment's and attachments.
- \checkmark Introduce Exhibits and technical meetings

