## 24<sup>°</sup> AFA Int'l. Technical Fertilizers Conference & Exhibition 22 – 24 November 2011, Amman, Jordan

Best Available Technology in Fertilizer Industry : Energy / Water Optimization – HSE - Operations and Equipment – R&D



Mr. Bellary Muhammad Usman Maintenance Superintendent - SAFCO

Saudi Arabia



# REPLACEMENT OF HIGH PRESSURE SCRUBBER AT SAFCO UREA PLANT,

JUBAIL, SAUDI ARABIA

**SLIDES - 19** 

SABIC affiliate

## CONTENTS

- OBJECTIVE
- **PROJECT CHALLENGES**
- REPLACEMENT OF HIGH PRESSURE SCRUBBER
- □ SUCCESS STORY
- **CONTRIBUTING FACTORS**
- **PROJECT PHOTOS & VIDEO**





#### OBJECTIVE

To Share SAFCO experience in,

Replacing old H.P. Scrubber with new one to Enhance SF-II Urea Plant Reliability.

Events captured during successful replacement of new High Pressure equipment is shared to the benefit of all SABIC Plants.



#### CHALLENGES IN HAND

- ► Manufacture and transport new H.P. Scrubber from Austria to SAFCO.
- ▶ Replace the old H.P Scrubber with new one at 80mtr elevation.
- Remove and restore Connected Piping and Structures to facilitate replacement of H.P. Scrubber.



#### REPLACEMENT OF H.P. SCRUBBER

- i. **PROJECT TARGET**
- ii. **PROJECT MILESTONES**
- iii. PRE-SHUT DOWN PHASE- PLANNING
- iv. SHUT DOWN PHASE EXECUTION

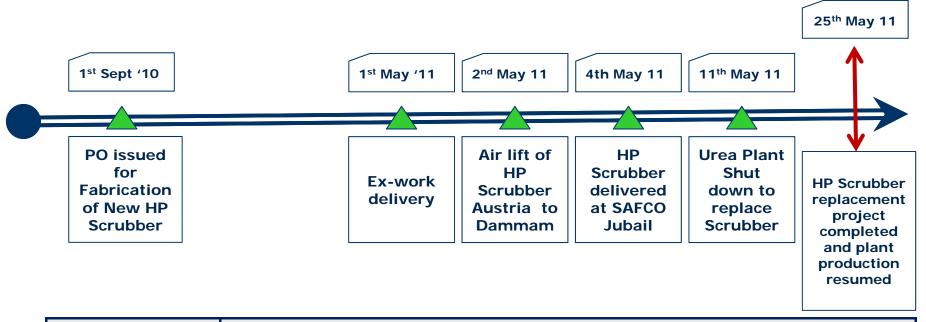


#### PROJECT TARGET

This Project is a sequence of unique, complex and connected activities having one goal and that must be completed within Planned duration, within budget and meeting all specifications.



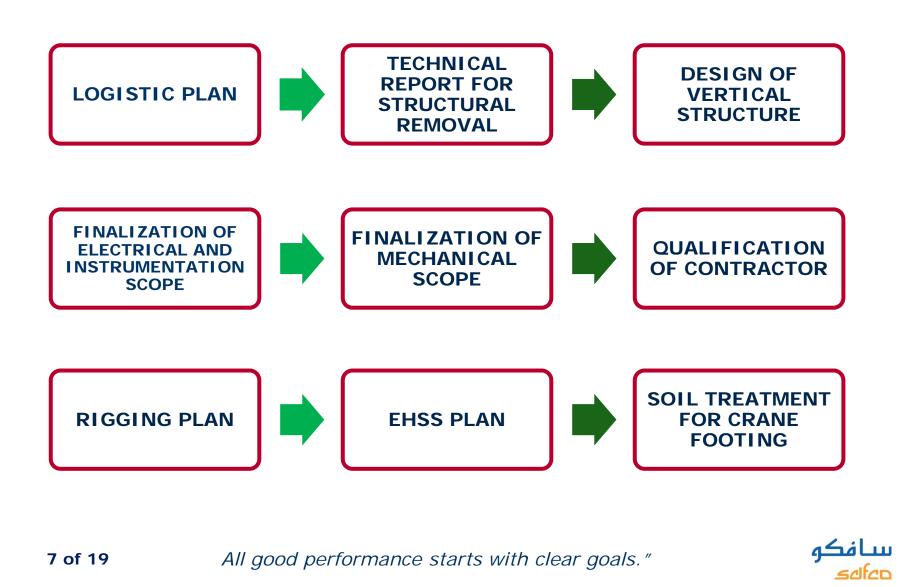
### **PROJECT MILESTONE (NEW SCRUBBER)**

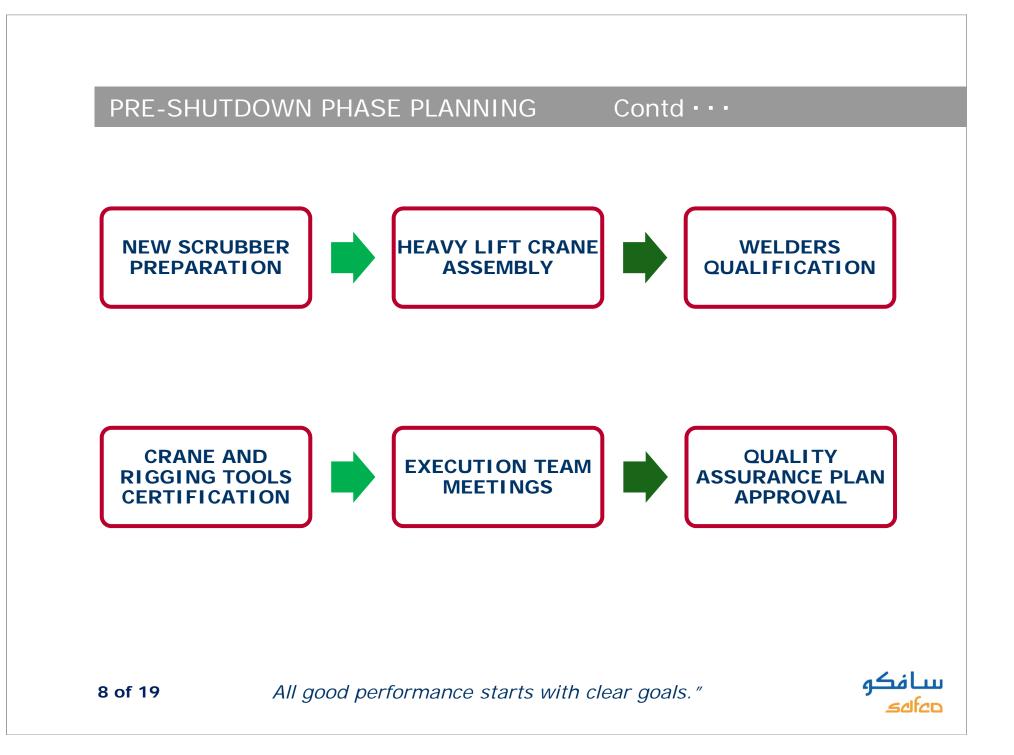


	Project Status			
Activity	Contractual		Actual	
	Start	Completion	Start	Update
Engineering	15/09/2010	07/01/2011	15/09/2010	07/01/2011
Material Order & Delivery Status	11/10/2010	07/04/2011	11/10/2010	01/03/2011
Fabrication & Testing	07/12/2010	01/05/2011	07/12/2010	01/03/2011
Transportation	02/05/2011	02/05/2011	02.05.2011	02.05.2011
6 of 19	کو All good performance starts with clear goals."			ىافكو

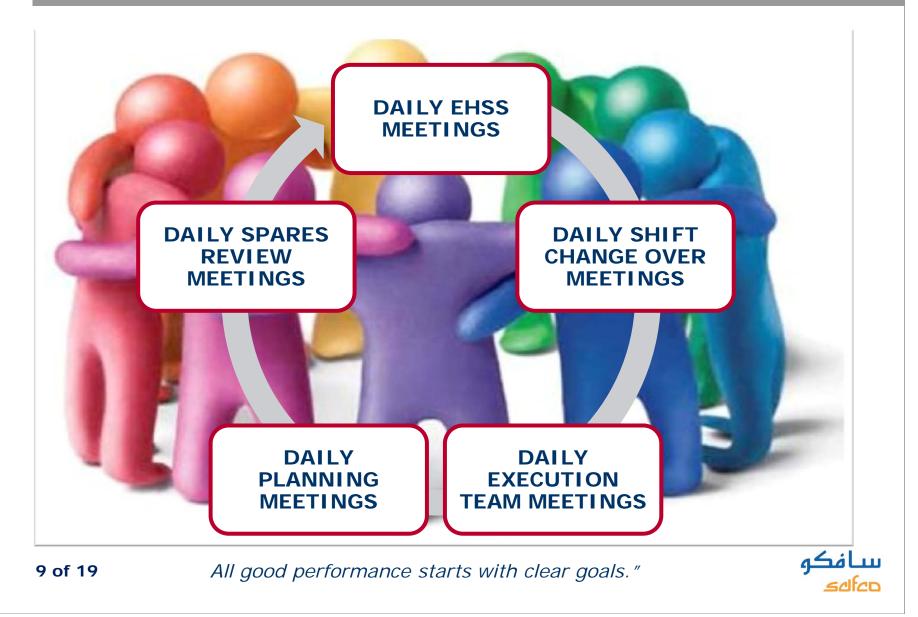
حطائح

## iii. PRE-SHUTDOWN PHASE PLANNING





#### iv. SHUT DOWN PHASE- EXECUTION



# SUCCES STORY

SF-II UREA PRODUCTION	Before Replacing HP Scrubber	1800 MTPD , Interrupted	Production increase
	After replacing HP Scrubber	1990 MTPD, Continuous	= 190 MTPD

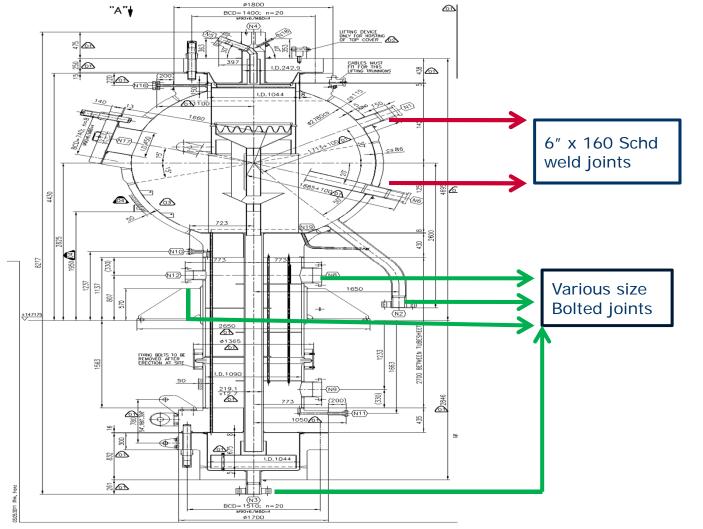


#### CONTRIBUTION FACTORS: SABIC VALUES

Contributing factors for the successful story as below, but not limited to these .....



#### H.P SCRUBEBR CROSS SECTION VIEW



12 of 19



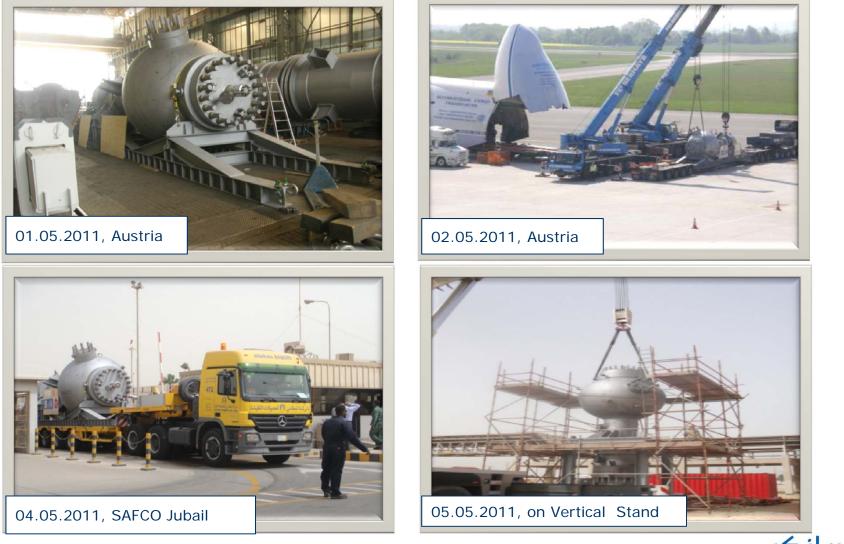
#### PHOTOGRAPHS- FABRICATION OF H.P.SCRUBBER







#### PHOTOGRAPHS - TRANSPORT FROM AUSTRIA TO SAUDI ARABIA





# PHOTOGRAPHS - SOIL PREPARATION



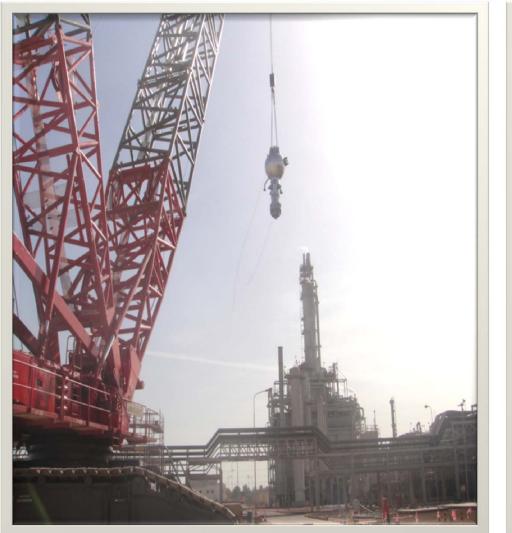


# PHOTOGRAPHS - OLD SCRUBBER REMOVAL





## PHOTOGRAPHS - NEW SCRUBBER INSTALLATION





17 of 19



