



# UKOPA Meeting 10/11 October 2007

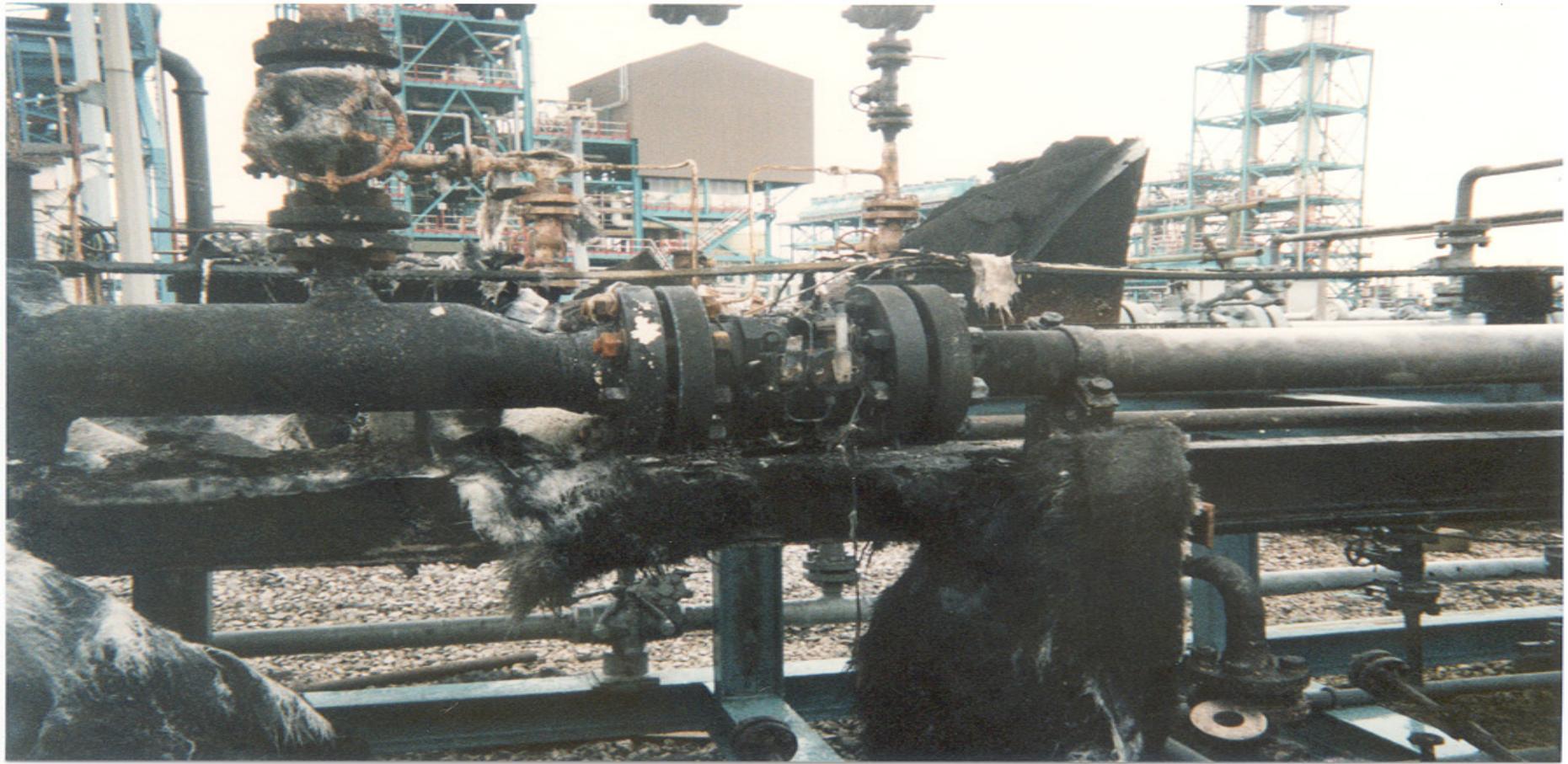
## Process Safety and Management of Permittry

**UKOPA/07/0064**

Sabic (Huntsman) in common with other pipeline operators have had a number of near misses and a small number of incidents



11/25/10



## The Pipeline Maintenance Industry faces specific SHE challenges

- Off site workplaces
- Transport issues
- Remoteness from support teams
- Third party influences
- It is not always possible to ensure that everything is within our direct control

## What has the Sabic Pipelines Team done to meet these challenges

- Recognise that most accidents/ incidents are attributable to human factors
- Recognised a need to do more to address those factors
- Define key areas for improvement

## Key Areas for Improvement

- More effective use of permittry
- Improved use of procedures and job methods

## Effective Use of Permittry

- Sabic has a robust Work Control Permit system providing:
- Work scope definition
- Levels of control required
- Identification of hazards present
- Identification of precautions required
- Listing of supporting documents
- Transfer of control

# Effective use of Permittry

- Strengths of the WCP system
- Provides clear definition of the scope of work
- Clearly specifies the level of control required
- Provides a 'built in' risk assessment
- Clearly states the precautions required
- Requires staff to be trained and validated
- Improvement areas
- Difficult to apply to third parties working around our pipelines

# Effective use of Permittry

- Action required was to develop a permit system that:
- Is suitable for use with third parties i.e. contractors, landowners
- That does not rely upon previous training and validation
- Clearly identifies the scope of work and method of working
- Clearly allocates responsibilities

# Improved Use of Procedures and Job Methods

- All CCPL procedures and job methods for routine maintenance work have been reviewed, revised and created where necessary in 2006/7, such that a full suit now exists
- Review period set for 2 or 3 years and compliance is now measured as a site KPI
- All documents are logical, easy to read and understand and as brief as possible
- Energy isolation procedures created for all tasks requiring isolation from sources of energy i.e. electricity, process pressure
- Training and validation provided for all team members

# WGEP Pigging Project - 2006

- Provided an opportunity to review project systems and improve on past performance
- Key areas identified for improvement:
  - Design
  - Planning and organisation
  - Safe systems of work

# Design

- Layout of work areas
  - Location
  - Ease of access and egress
  - Sufficient space and lay down areas
- Minimisation of tripping hazards
- Support of equipment
- Provision of additional isolation
- Control of installation and commissioning via Sabic Control of Modification system



# Planning & Organisation

- More time spent up front in detailed planning
- Organisation defined months in advance of project start
- Use of experienced and motivated leadership and supervision
- Robust communication links
- Emphasis on teamwork with total involvement
- Emphasis on behavioural safety with use of induction and team building events
- Recognition of likelihood of fatigue and rostering teams to suit
- Performance monitoring

# Safe Systems of Work

- Safe systems of work document produced and used during the induction and team building events as well as during the project

# Safe Systems of Work

- Safe Systems of Work document used to:
- Set SHE targets
- Define the induction process
  - Team building event
  - Specific induction packages (SHE systems, emergency procedures, ethylene and nitrogen, site specific)
  - Issue of hard hat stickers and safety booklets

# Safe Systems of Work

- Safe Systems of Work document used to:
- Define contractor SHE requirements
  - CCNSG Safety Passports
  - Maintenance of training and induction records

# Safe Systems of Work

- Define permittry requirements
- Sabic Work Control Permit system
- All contractors with key personnel trained and validated
- Individual risk assessments mandatory
- Daily sign on to permits
- Rigid sign in/out system employed

# Safe Systems of Work

- Hazard identification
- Main vehicle Work Control Permit
- Hazard warning signs
- COSHH and hazard data sheets

# Safe Systems of Work

- Excavation safety
- Use of Sabic on site procedure
- Use of excavation and entry certificates
- Continuous gas and oxygen monitoring
- Adequate supports and two means of escape
- Shuttering and supports inspected daily by users and weekly by competent persons



# Safe Systems of Work

- Communications
- Land line telephones and fax at each location
- Daily site meetings, including SHE review
- Weekly management meetings
- Daily tool box talks for all teams

# Safe Systems of Work

- Environment and Waste Management
- Detailed environment assessment complete
- Waste tightly controlled
  - Consignment & disposal through Sabic authorised waste consignor
- Waste sampled unless clearly identified
- No waste disposal by contractors
- Specific procedures for protection of ground and watercourses

# Safe Systems of Work

- Auditing
- Audit programme established for Sabic, Ineos and contract personnel with topics including:
  - Work control
  - Fire permits
  - PPE
  - Housekeeping
  - Excavations
  - Environment
  - Job freeze

# Safe Systems of Work

- Operating procedures
- Specific for each work site and each operation
- Available and to hand
- Accurate and up to date
- Logical
- Easy to read and understand and brief as possible
- Use of checklists and hold points
- Used in training and validation

# Project SHE Outcome

- No one hurt
- No environmental damage caused
- 2 minor accidents
- 1 incident involving a crane that fell into a ditch
- Project audited by Sabic, Ineos and HSE with no major deficiencies identified