



ISO 20815:2018

A need for more integration within economic assessments

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AN OVERVIEW OF « PRODUCTION AVAILABILITY » STUDY HISTORY

- A long time ago
- Nowadays
- A bright future?

AVAILABILITY STUDY

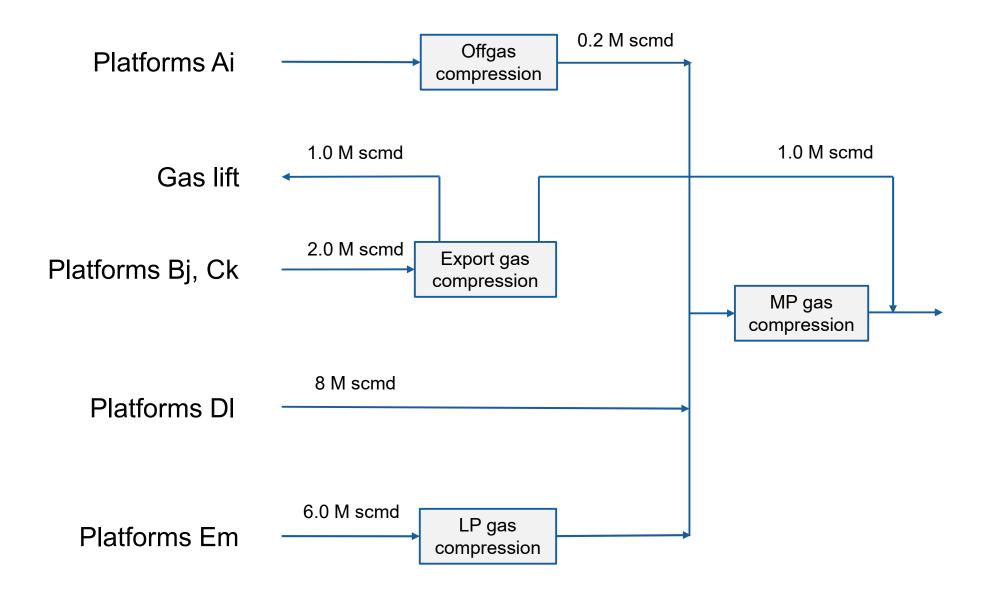
Assessment of (equipment) production levels (75%, 50%, etc.)

RAMS STUDY

Assessment of oil/gas production levels

More and more events considered RARE EVENTS

NOT CONSIDERED



Offgas compression

2 x 0.2 scmd / EM driven

Export gas compression

 $2 \times 0.5 \text{ M scmd} / \text{ EM driven}$ Used for the gaslifting of platforms B_j

1 x 0.5 M scmd / EM driven

Used for gaslifting or gas export

1 x 1.0 M scmd / EM driven

Used for gas export

LP gas compression

2 x 4.0 M scmd / GT driven

MP gas compression

2 x 3.5 M scmd / GT driven 2 x 4.0 M scmd / GT driven

PRODUCTION AVAILABILITY = Ratio of actual production to planned production, over a specified period of time

GAS PRODUCTION AVAILABILITY =

Actual volume of gas produced / volume of gas the facility could have produced if it had a 100% availability

CATASTROPHIC EVENTS NOT CONSIDERED

- Prob.(facility lifetime) < 25%
- Impact on Prod. Av. (facility lifetime) of 1 event < 1%



ISO 20815: ONE STEP BEYOND?

INTEGRATION WITH MAINTENANCE / LOGISTICS

What is the optimum spare level for main items?

Taking into account the associated risk level!

INTEGRATION WITH SAFETY

Catastrophic events should not be included in the results of production availability studies

But...

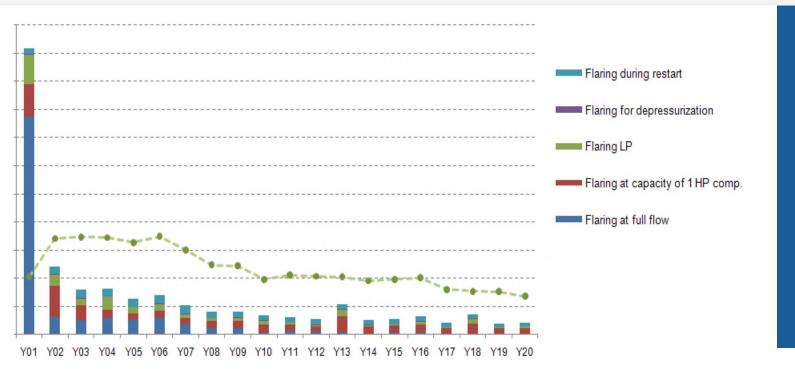
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INTEGRATION WITH INSURANCE

BREAKDOWN MACHINERY INSURANCE?

3

INTEGRATION WITH ENVIRONMENT



4

A production availability study should become the core system to gather and harmonize the assessment of all events impacting the perfect running of EP production systems and to minimize their effects on the economics of the plant



Thank you