

UKOPA Fault Database Management Group

Notes of Meeting

Date: 5th October 2004

Venue: Advantica, Loughborough

Present:

Roger Ellis	Shell
Richard Espiner	BP
Neil Jackson	Transco
Ken Thomas	Huntsman
Rod McConnell	Independent Consultant
Jane Haswell	PIE
Steve Chatfield	HSE
Ray Hicks	Advantica
Kyle Veitch	Advantica (Part)
Jonathan Franklin	Advantica (Part)
Vinod Chauhan	Advantica (Part)
Andrew Francis	AFAA (Part)

Apologies:

Robert Owen	Transco (Neil Jackson deputising)
Ken Curtis	Powergen
Peter Rycroft	HSE
Clive Ward	Advantica

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Item 1 : Agreement of Minutes from Previous Meeting

Minutes were agreed and no comments made.

Item 2 : Review of Actions from Previous Meeting

Action 1 : Jane Haswell to draft a statement on MAHP applicability to all pipelines for review by R McConnell.

Not Complete

Action : JH and RM to resolve data sensitivity issues and finalise statement.

Action 2 : RH to contact Jane Haswell to request list of queries likely to be used for risk assessment.

Complete

Action 3 : Advantica to change the current member database for Huntsman to remove all reference to 'ICI'.

Complete

Action 4 : RH to incorporate agreed changes to proposal and issue revised proposal to R Ellis

Complete

Action 5 : R Ellis to forward proposal to FDMG for final comments

Complete

Action 6 : Roger Ellis to seek response from HSE for other UK MAHP fault data and future HSE involvement in FDMG

Complete

Action 7 : Transco to look at how difficult it would be to remove below 7 bar pipelines from the fault database

Not Complete

Action : Transco / Advantica to review

Action 8 : BP to investigate removing BP's non-MAHPs from the database

Complete

Action 9 : Advantica to consider adding a field to the database and data entry forms allowing non-MAHP pipelines to be flagged

Complete

Action 10 : In due course, Advantica to issue subsequent reports so that they exclude non-MAHP pipelines. An explanation for expected changed to exposures and failure frequencies to be provided in the text.

Not Complete

Action : To implement as part of the next report

Action 11 : Neil Jackson to contact Stuart Pointer of HSE to explore options for involving HSE and WS Atkins as HSE contractor in a technical appraisal of the development work. Also to request relevant data, prior to the meeting on 10th May, (Stated to be available in the public domain), that was used by WS Atkins to develop their model.

Not Complete

Action : Neil to review as part of planned meeting with HSE

Action 12 : Advantica to examine UKOPA Fault Database for suitable case study material for the development work. Also to issue a request to UKOPA FDMG members for data required in the work but not available from the UKOPA database.

Not Complete

Action : As before

Item 3 : Review of Terms of Reference

The following changes to the TOR were agreed:

1. UKOPA Working Group changes:
 - a. Replace ABB with Independent Consultant for R McConnell
 - b. Include J Haswell (PIE)
2. Deliverables
 - a. Text amendment to No. 1
 - b. Replace July 04 with Nov 04 for No. 2.

Action from Item 3 :

R Ellis to make changes to TOR and release to FDMG.

Item 4 : Reporting on key Performance Indicators (KPIs)

Steve Chatfield made a number of comments related to and raised discussion on how the integrity and safety performance of the pipeline industry can be measured. Key points were:

- Overall HSE performance target for all industries is a 6% reduction in Dangerous Occurrences by 2006, including:
 - Distribution mains
 - MAHPs
 - COMAH related
 - Occupational health related
- It was noted that there are very few, if any, Dangerous Occurrences for MAHPs
- HSE would like to review if information from the UKOPA Fault Database data could be used to measure performance
- Categories of KPI may include:
 - Loss of Containment (not that many incidents to measure performance against)
 - Extent or severity of Damage (for each damage type)
 - Near Miss Occurrences, e.g. for external interference
 - Implemented risk reduction measures – focusing on the positives of integrity/risk management instead of the problems.

It was suggested that 3rd party activity (near misses, with or without damage) may be an area also to address. HSE are meeting UKOPA representatives in Oct 04 to discuss these issues.

It was agreed that HSE should review further after the new fault database presentation and further meetings with UKOPA.

Item 5 : UKOPA Fault Database Development

Kyle Veitch (Advantica) demonstrated the new UKOPA database functionality for pipeline and fault data entry/edit/copy and for searching and reporting company specific pipelines and faults. It was agreed that basic pipeline entry and edit functions will be included for the first release (scheduled for November) and that additional functionality can be added at a later stage e.g. making population of some data fields mandatory and a facility for checking and approving pipeline and fault entries.

Three categories of user were defined (these will be password controlled):

- Admin (having the ability to change the aesthetics and add/remove fields or data categories within the fields)

- General (having database Read/Write capability)
- Read-only users

Also discussed was how to query and export data from the 'collaborative' data set, to agreed confidentiality arrangements. It was agreed that the data fields to be hidden were the Pipeline ID and Name, but that everything else would be made available. A list of standard queries was provided by JH with some additions agreed in the meeting. The results of the query would be exported, via e-mail, in excel spreadsheet form. This would enable data manipulation outside of the web environment. This should be subject to review after the first data input had been implemented. The functionality should not be available for immediate use, before the issues of confidentiality had been adequately resolved

The database is intended to be released during mid / late November and adequate support will be provided by Advantica to each user for use of the database for data entry/edit etc. Users will then be able to enter 2003 and 2004 pipeline and associated fault data. This support will be provided as necessary either by phone or e-mail or where appropriate in informal training sessions conducted at Advantica's office. A list of instructions (help file) on how to use the database will be issued upon release. It was recognised that when the new database goes live a further updates or clarifications may be needed based on feedback from members entering the data. Advantica would address these.

Actions from Item 5 :

Advantica to release new UKOPA database and user instructions by 22nd November and to provide appropriate user support.

FDMG companies to plan resources to enter 2003/2004 data during November and December 2004 and verify existing data sets.

Advantica to review and check data entries early Jan and follow up as required.

Item 6 : Mechanical Damage Model for UKOPA

Andrew Francis made a presentation on the new mechanical damage model that has been developed by Advantica. This model has updated the fracture mechanics of the existing British Gas (Transco) model in a number of ways:

1. Uses R6 Rev 4 failure assessment diagram (FAD) instead of log secant FAD
2. Uses an alternative correlation of fracture toughness to Charpy energy
3. Introduces the plasticity correction term
4. Introduces secondary membrane stress
5. Models the gouge as blunt but containing a micro-crack, with the stress state in the gouge modified by a notch factor

A number of unknown factors have been identified in the work and values have been obtained for these factors based on a logical fit of the existing data set of 132 test that were carried out by Hopkins and Cairns in 1980 to the R6 Rev 4 FAD.

The result is that the new model provides a good fit to the failure assessment line on the FAD.

A discussion took place regarding how best to disseminate the new model within the UK pipeline industry and how to gain acceptance of the model within the HSE.

Actions from Item 6 :

NGT to recirculate the request for data that Advantica provided to all UKOPA members in order that Advantica can populate the look-up tables. Request to be circulated by 8/10/2004. Data required to be received by Advantica by 22/10/2004.

Advantica to incorporate NGT's comments into the draft report and then circulate it to the UKOPA members for comment by 15/10/2004.

On receipt of all available information from UKOPA members Advantica to develop anonymous look-up tables as a separate report. Timing dependent on receipt of data.

NGT to arrange a meeting with Stuart Pointer of the HSE and representatives of Advantica to discuss the implementation of the new model.

NGT/UKOPA to consider how to gain acceptance of the model both within Industry and HSE. It may be appropriate to publish at some time in a suitable journal. This should be agreed as part of the UKOPA working group on pipelines strategy.

Summary of Actions

Action 1 : JH and RM to resolve data sensitivity issues and finalise statement.

Action 2 : Transco/Advantica to look at how difficult it would be to remove below 7 bar pipelines from the fault database

Action 3 : In due course, Advantica to issue subsequent reports so that they exclude non-MAHP pipelines. An explanation for expected changed to exposures and failure frequencies to be provided in the text.

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Date of Next Meeting: 2nd February 2005