



FDMG – Excel-based Database- Description of New Arrangements and Future Plans

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UKOPA/12/0018

Current members?

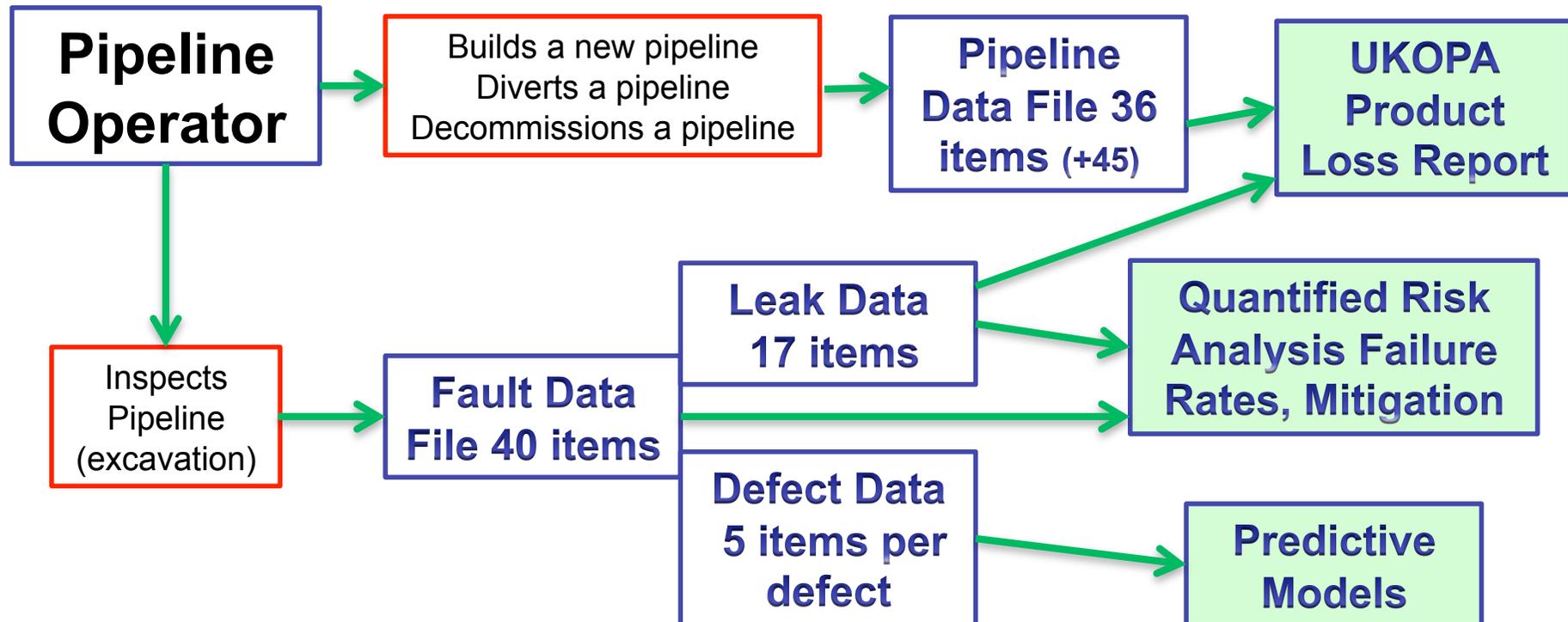
National Grid UKT
National Grid UKD
Scotia Gas Networks
Northern Gas Networks
Wales & West Utilities
Essar UK Ltd
Ineos
Shell EPE
BP
Sabic UK Ltd
EON UK Ltd

11 Companies
2309 pipelines

Possible new members

Esso
BPA
TOTAL
OPA
Greystar
Ineos oil
BP oil
Essar oil
Shell EPE oil
BGE

Excel-based Fault and Leak Database



A FAULT is a feature that has been confirmed by field investigation, excavation and measurement. Any features that are inferred by other measurements such as an intelligent pig in line inspections, CIPS, etc and have not been verified in the field should not be included. However pipeline defects comprising of coating damage or grinding marks confirmed by inspection should be included. The date of the fault should be the date of the field inspection.

What does the database now consist of ?

- 1 11 Pipeline Operator XL workbooks with list of pipeline details + master list
- 2 11 Pipeline Operator XL workbooks with list of faults + master list
- 3 1 XL workbook with master list of defects
- 4 1 XL workbook with master list of leaks
- 5 Data input workbooks for new pipelines and for new faults/leaks/defects + guidance documents to assist with data input requirements
- 6 Working calculations (spreadsheets) and template for annual UKOPA Leak Report + explanation of calculations

What is required to maintain the database?

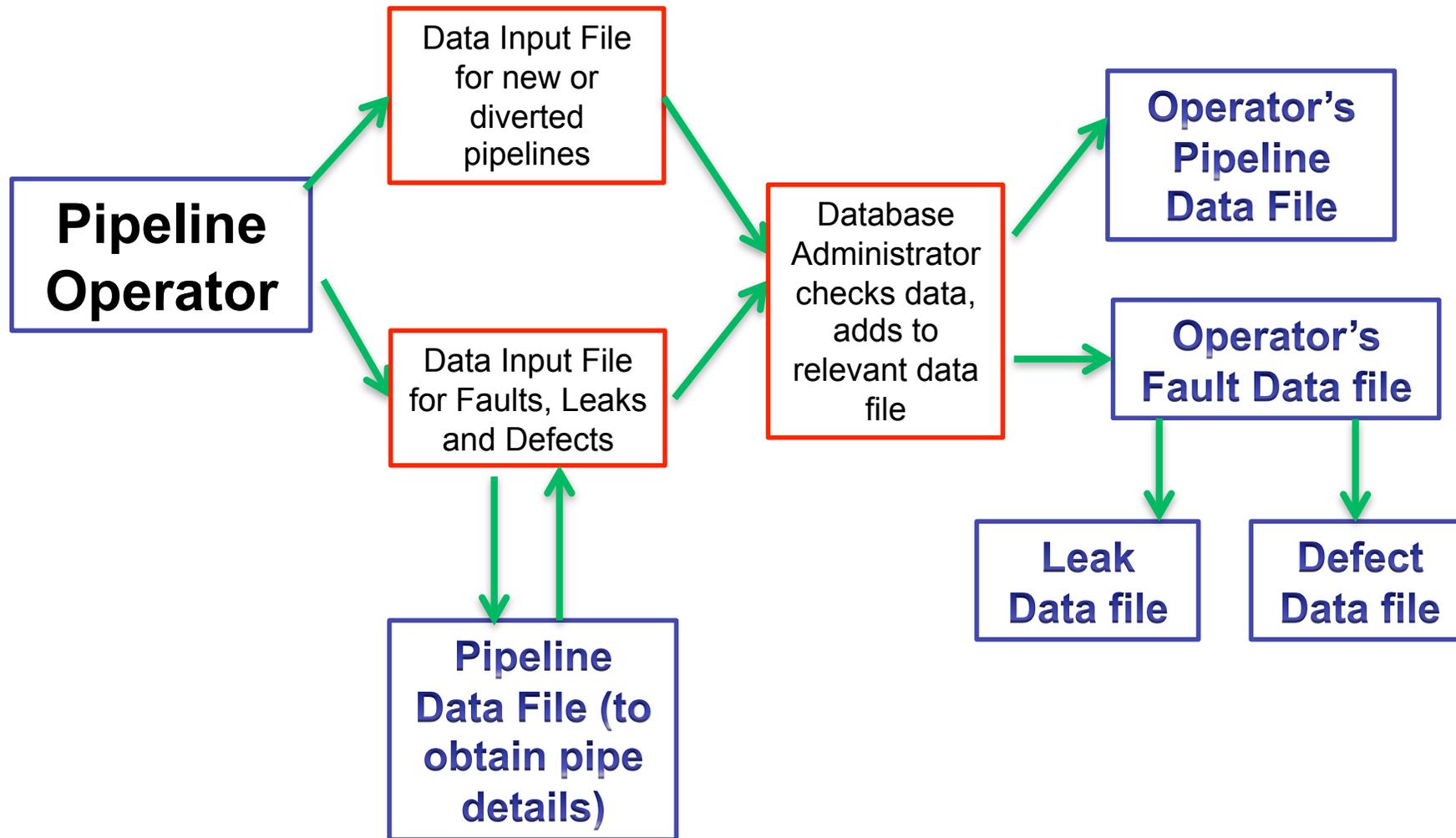
- 1 Check and update any changes in pipelines for each Pipeline Operator on a regular basis (6 monthly)
- 2 Check Pipeline Operator fault data and include new Faults, Leaks and Defects from each Pipeline Operator every 6 months
- 3 Send updated workbooks of Pipeline and Faults to each Pipeline Operator every 6 months
- 4 Pipeline Operator to check own data and keep current workbooks containing Pipelines and Faults
- 5 Carry out calculations and produce Product Loss report annually based on previous year's data

Proposed Annual Timetable and actions



| | Database Administrator | Pipeline Operator |
|--------------|--|--|
| Jan | Calls for Fault data for previous 6 month period + any changes to pipelines | |
| Feb | | Returns new fault data + any pipeline changes |
| Mar | Checks and collates new data and sends updated workbooks to each operator | Replaces / archives previous data and retains new data |
| April | | |
| May | | |
| June | | |
| July | Calls for Fault data for previous 6 month period + any changes to pipelines | |
| Aug | | Returns new fault data + any pipeline changes |
| Sept | Checks and collates new data and sends updated workbooks to each operator | Replaces / archives previous data and retains new data |
| Oct | Calculates new Exposure data, and calculations for annual Product Loss report - updates template report, issues draft for comment to FDMG + RAWG | Reviews draft report and comments to administrator |
| Nov | After approval by FDMG + RAWG report issued and published on website | |
| Dec | | |

Data Input





UKOPA

United Kingdom
Onshore Pipeline Operators' Association

UKOPA INPUT FAULT / LEAK DATA - SHEET 1

Number in List: 1

2 Pipeline Operator

3 Pipeline ID

4 Operator's Pipeline Name

5 Operator's Fault Reference

6 Outside Diameter at Fault mm

7 Wall Thickness at Fault mm

8 Pipe Material

9 Construction Type

10 Ordnance Survey Map Ref.

11 Pipeline Location Classification

12 Fault Specific Location

13 How Discovered

14 Discovery Date dd/mm/yyyy

17 Fault Cause

19 External Interference Cause

21 Extent of Damage

16 Action Taken

View Pipeline List

Confirm Pipeline Selection

Check Data

UKOPA

United Kingdom Onshore Pipeline Operators' Association

GUIDE TO UKOPA DATABASE FAULT DATA INPUT SPREADSHEET

24 August 2011

This Guide has been produced to assist UKOPA Fault Database members to add new fault data to the UKOPA Fault Database.

The new format for the database is Microsoft Excel – the programs work in 2003, 2007 and 2010 versions although the current programs were written in the 2003 version.

is defined as a major accident hazard (nts) and any associated equipment outside (pressure reduction station, compressor, etc)

by field investigation, excavation and other measurements such as intelligent (been verified in the field should not be of coating damage or grinding marks date of the fault should be the date of the

PIPELINE DATA AND FAULT DATA.

UKOPA INPUT PIPELINE DATA

1 Number in List: 1

2 Pipeline Operator

3 Pipeline ID

4 Operator's Pipeline Name

5 Product

6 Product Phase

7 Outside Diameter mm

8 Main Wall Thickness mm

9 Second Wall Thickness

10 Length 2nd Wall km

11 Third Wall Thickness

12 Length 3rd Wall km

13 Design Pressure bar

14 Max Op Pressure bar

15 Date Pipeline Commissioned (dd/mm/yyyy)

16 Date Pipeline Decommissioned (dd/mm/yyyy)

33 Record Created by:

32 Pipeline Comments

17 Length below ground km

18 Length in rural areas km

19 Length in suburban areas km

20 Length in urban areas km

21 Construction Type

22 Main Design Depth of Cover

23 Main Pipe Material Grade

24 Second Pipe Material Grade

24 Length 2nd Material Grade km

26 External Coating

27 Internal Coating

28 Girth Weld Coating

29 Cathodic Protection

30 Hydrotest Date (dd/mm/yyyy)

31 Hydrotest Pressure Bar

Press to Save Data

Data Input
Forms and
Guidance

Changes to Input Data XL Workbooks

- Some operators had IT difficulties with FORMS input so simple DROP-DOWN boxes now included on spreadsheet for FAULTS + LEAKS + DEFECTS
- Pipeline spreadsheet with drop-down boxes still to be produced

| | A | B | C | D | E | F | G |
|----|--|--------------------------|---|---------------------------------|--|--|-----------------|
| 1 | NEW FAULT / LEAK INPUT DATA - SCOTIA GAS NETWORKS | | | | | | |
| 2 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 3 | TEMP FAULT NO | Pipeline Operator | Operator's pipeline reference number | Operator's pipeline name | Operator's fault reference number | Pipe Outside Diameter at Fault mm | Location |
| 4 | 1 | Scotia Gas Networks | MS0002 | GRANTON/GRANGEMOUTH | | | |
| 5 | 2 | Scotia Gas Networks | | GRANTON/GRANGEMOUTH | | | |
| 6 | 3 | Scotia Gas Networks | | BRAISHFIELD/AUSTINS COPSE P005 | | | |
| 7 | 4 | Scotia Gas Networks | | LORDSWOOD/PURBROOKE P006 | | | |
| 8 | 5 | Scotia Gas Networks | | LORDSWOOD/HURSLEY P007 IP | | | |
| 9 | 6 | Scotia Gas Networks | | HURSLEY/OVERTON P007 IP | | | |
| 10 | 7 | Scotia Gas Networks | | FREEFOLKWOOD/ANDOVER P0008 IP | | | |
| 11 | 8 | Scotia Gas Networks | | ANDOVER/LUDGERSHALL | | | |
| 12 | 9 | Scotia Gas Networks | | HANNINGTON/PARK PREWITT P064 IP | | | |
| 13 | 10 | Scotia Gas Networks | | | | | |
| 14 | 11 | Scotia Gas Networks | | | | | |
| 15 | 12 | Scotia Gas Networks | | | | | |
| 16 | 13 | Scotia Gas Networks | | | | | |
| 17 | 14 | Scotia Gas Networks | | | | | |
| 18 | 15 | Scotia Gas Networks | | | | | |
| 19 | 16 | Scotia Gas Networks | | | | | |
| 20 | 17 | Scotia Gas Networks | | | | | |
| 21 | 18 | Scotia Gas Networks | | | | | |
| 22 | 19 | Scotia Gas Networks | | | | | |
| 23 | 20 | Scotia Gas Networks | | | | | |
| 24 | 21 | Scotia Gas Networks | | | | | |
| 25 | 22 | Scotia Gas Networks | | | | | |
| 26 | 23 | Scotia Gas Networks | | | | | |
| 27 | 24 | Scotia Gas Networks | | | | | |
| 28 | 25 | Scotia Gas Networks | | | | | |
| 29 | | | DROP DOWN LIST | DROP DOWN LIST | | DROP DOWN LIST | DROP DOWN LIST |

Pipeline Product Loss Incidents

(1962 - 2010)

Draft 7th Report of the UKOPA Fault Database Management Group

Comprising:

National Grid

BP

Ineos

Sabir

Shell UK Limited

Shell EPE

E-ON UK

Wales & West Utilities

Scotia Gas Networks

Northern Gas Networks

Health and Safety Executive

Calculations for Product Loss Report

- Calculate Exposure (number of years in operation X length) for each pipeline up to date of report – needs to be updated for new report
- Also need to calculate exposure by various parameters, diameter, wall thickness, area classification etc.
- Leaks – add any new leaks to the list of 184 pipeline leaks in the database, and changes analysis for all data relating to leaks – 3rd party, corrosion, mechanical, etc.
- Calculate all the various parameters required for the Product Loss report
- Enter the new data into the Product Loss report template

Estimated time to complete – 1 week + revision time

Future Plan

- UKOPA FDMG intending to appoint a new administrator during 2012
- Therefore in process of preparing package for handover
- March-April 2012
 - collate new 2011 data and issue updated Company workbooks for faults and pipelines
 - produce new drop-down box input workbook for pipelines
 - produce and agree Process and Procedure document with FDMG members
 - complete package and guidance on calculations for Product Loss Report – prepare spreadsheets in easily updated form
 - produce draft scope of work document for administration of database
- May 2012 – ready to invite tenders for administration of database

What is required to join the database?

- Data input for pipeline list (now only 36 required data items – relatively easy)
- Commitment to record details for every excavation carried out to inspect pipeline defects discovered by ILI or other inspections (CIPS, known external interference etc) - this can be done using standard forms or data input to UKOPA spreadsheet.
- This includes 40 items + extra items where a leak has occurred, and where measured defects (dents, gouges, corrosion etc) have been measured
- Retrospective data not required but accepted if available
- Currently no joining fee – this may change.....no annual fee – part of UKOPA membership
- Please contact Roger Ellis or Rod McConnell for data input forms