



CDA Open Industry Workshop

Aberdeen

15th March 2018

Addressing the Information Legacy of an Offshore Asset Proceedings

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1 Workshop Overview

1.1 Background

CDA is a wholly-owned subsidiary of Oil & Gas UK¹, working to improve collaboration and capability within industry and with government on data and information management issues.

CDA works directly with industry and government to progress issues through collaboration, and to improve the level of professionalism in data and information management in oil and gas through a variety of initiatives. As well as engaging with universities in the UK and the US to develop undergraduate and postgraduate taught courses in petroleum data management, CDA organises workshops throughout the year on topical subjects.

This workshop discussed issues surrounding data and information management during and after decommissioning of an offshore asset, and was held on 15th March 2018, at CDA's offices in Aberdeen.

1.2 Workshop Purpose

CDA has been leading an industry working group supported by representatives of Shell, the University of Aberdeen, Fairfield, Spirit Energy, Maersk Oil and the Oil and Gas Authority to clarify what should happen to information associated with an offshore asset once that asset has been decommissioned.

The working group delivered two reference documents:

1. An industry 'retention schedule' for offshore oil and gas records, designed to support decision making regarding the disposition of relevant records; and
2. A guidance document describing how the schedule was created, its benefits and limitations and how it might be developed further.

Both are available on CDA's website:

<https://cdal.com/index.php/data-regulations/>

This workshop brought together UKCS Licensees, service providers, legal experts and consultancies to learn more about the reference documents developed by the working group and to consider the broader data and information management issues facing oil and gas players as offshore infrastructure reaches the end of its commercial life and is decommissioned.

¹ Oil & Gas UK is the trade association for the UK offshore oil and gas industry

1.3 Workshop Programme

Programme		
Venue: CDA, Second Floor, The Exchange 2, 62 Market Street, Aberdeen, AB11 5PJ		
Start	End	
13:00	13:30	Tea, Coffee, and Registration
13:30	13:35	Welcome and Introduction – Malcolm Fleming, Chief Executive, CDA
13:35	13:45	Overview: A Records Retention Schedule for Oil & Gas Decommissioning Daniel Brown, Manager CDA Projects, Common Data Access Limited
13:45	14:20	Brent Delta Decommissioning: Challenges for Information Managers Fiona Ribbeck, SSW Information Compliance Lead, Shell UK Limited
<p>After 40 years in the northern North Sea, the Brent Delta platform was transported onshore to be dismantled in April 2017. The information legacy of Brent Delta is still being assessed. Over 100,000 boxes of physical records, and 1 million+ files need to be reviewed against legal and company retention requirements, and for their value as part of the Brent field’s cultural heritage in UK oil production.</p> <p>Shell talk through the Information Management challenges on a decommissioning project the size and age of Brent.</p>		
14:20	14:55	Navigating the Oil & Gas Information Legacy Dr Greg Gordon, Head of the School of Law, University of Aberdeen
<p>The rules for which records most companies must retain are clear. But what if that company operates assets sitting in the middle of the North Sea, where the usual mix of laws and regulations do not apply, and then moves one of those assets onshore to be dismantled? What, then, must you retain, why, and for how long?</p> <p>How do you weave your way through the web of laws, regulations, directives, and intergovernmental agreements to quantify the risks you run when disposing of oil and gas information, and demonstrate due diligence in how these risks are managed?</p>		

14:55	15:30	The 1,000 Year Perspective: Records Retention at the NDA Martin Robb, National Programme Manager Information Governance, NDA
<p>Dealing with the records legacy of decommissioned oil platforms is hard enough, but how do you manage when your records need to survive, and remain useful, for the next 1,000+ years?</p> <p>Whether for a millennium, or just a decade or two, the records management challenges for both industries are the same: how do you choose which records to store, and how do you store them so that they will be readable when needed, findable when required, usable with current technology, and affordable to companies and the tax payer, ten years from now, as well as the next ten centuries?</p>		
15:30	16:00	Refreshments and Networking
16:00	16:30	Working Session Led by CDA
<p>With publication of its records retention schedule for decommissioning, the oil and gas industry has taken another big step towards good management of its information legacy. CDA will lead a working session to determine what should be done next to support information managers working in offshore decommissioning, so that costs are minimised, disposition decisions are well founded, and the long-term information liabilities of the offshore industry are well managed.</p>		
16:30	16:45	Working Session: report back Led by CDA
16:45	17:00	Conclusions & Wrap Up – Malcolm Fleming, Chief Executive, CDA

1.4 **Workshop Presentations**

The presentations given by most of the speakers are available for download from the CDA website:

<http://cdal.com/wp-content/uploads/2018/04/CDA-Workshop-March-2018-Slides.pdf>

1.5 **Guest Speakers**

CDA was pleased to welcome the following guest speakers to the Workshop:

- Fiona Ribbeck, SSW Information Compliance Lead, Shell UK Limited
- Dr Greg Gordon, Head of the School of Law, University of Aberdeen
- Martin Robb, National Programme Manager Information Governance, Nuclear Decommissioning Authority

2 A Records Retention Schedule for Oil & Gas Decommissioning

2.1 Aim

Daniel Brown of CDA provided an overview of the origin of the records retention schedule for the offshore oil and gas industry, its contents, and how it may be downloaded and used freely within the industry for any purpose.

2.2 Overview of the Records Retention Schedule for Decommissioning

In 2016, an industry group was convened by the IM Energy Forum² to consider which records an operator must retain, and for what purpose, after an offshore asset is decommissioned.

Decision making regarding the retention of records is usually governed by a 'records retention schedule', a document that classifies the records of an organisation into various types (e.g. Engineering, HSE, etc.), and for each type, specifies how long the records must be retained.

The schedule is used as a straightforward decision-making tool, enabling retention decisions to be made quickly and confidently, without reference to the company's legal team. However, the quality of the decisions made depends greatly on the quality and completeness of the schedule and the business circumstances in which the schedule was created.

At the beginning of the operational life of an offshore asset, decision making regarding the records that must be retained post decommissioning is not typically a business priority, and so records retention schedules typically defer those decisions by setting very long retention periods for operational records (e.g. 99+ years). If these periods are not reviewed when decommissioning finally arrives, records may be retained for decades longer than strictly necessary, creating unnecessary cost and interfering with the organisation's efforts to wind up activity relating to the decommissioned asset.

The industry group set out to tackle these issues through creation of a records retention schedule targeted at the post decommissioning environment. Beginning with a generic UK retention schedule provided by Keith Batchelor, a highly regarded retention specialist and Fellow of the Information and Records Management Society. The group then supplemented the schedule with specific oil and gas legislation and applied filters to remove items not applicable to the offshore, or no longer relevant once oil and gas operations had ceased.

The result of this legislative review was a detailed listing of all known legal causes for the retention of records, the nature of the records to be retained, and for how long, that could then be compared with a company's existing retention schedule, to identify areas of over-retention and where records might safely be disposed of. This methodology was applied within the Shell organisation with encouraging results.

Finally, the group developed a guidance document that explains the process set out above in more detail, including limitations on the scope of the schedule (e.g. exclusions for pipelines that extend onshore), and which also discusses individual company perspectives on retention that might cause an organisation to retain records for longer than the legal minimum—if the records still have value to the organisation that outweighs their cost of retention, for example.

² The IM Energy Forum (currently inactive) was an Aberdeen-based group of information managers from operator and contractor companies.

Addressing the Information Legacy of an Offshore Asset

All group outputs are freely available for use within the oil and gas industry only, and may be downloaded from CDA's [website](#).

Attention was also drawn to [Capturing the Energy](#), an organisation based in the University of Aberdeen that seeks to capture the cultural legacy of the oil and gas industry through the preservation of historically interesting records and artefacts arising from offshore activity.

3 Brent Delta Decommissioning: Challenges for Information Managers

3.1 Presentation Overview

Fiona Ribbeck shared the context of the challenges Shell faced and continues to face in decommissioning the four offshore platforms and subsea infrastructure installed since production began from the Brent field in 1976.

As well as four topsides, Shell's decommissioning plan must also address over 140 wells, one steel jacket, three gravity-based structures, two subsea locations and 28 pipelines.

Electronic information regarding Brent has only been available for the last ten years or so, leaving the previous thirty years of operations documented predominantly on paper. These records fill over 100,000 archive boxes, not all of which are catalogued to a sufficient degree of detail to enable a decision to be made regarding whether their contents need be retained or can safely be disposed of.

Reasons for lack of detail in the catalogue are those experienced by most, if not all oil and gas companies over a period of four decades of operation: changes in staffing, movements between locations and the degree of prioritisation necessary during low oil price periods that tends to limit investment in non-immediate information management requirements.

Of the 10% of boxes most affected by these issues, the contents of one third are described at the box level only (e.g. 'Brent papers'), while one third have no index or description at all.

To investigate the process to follow and the cost involved in addressing this, Shell performed a trial project in which 10,000 boxes were opened up and manually catalogued. Running at a rate of about 1,000 boxes per month, the project applied Shell's interpretation of the industry decommissioning retention schedule referred to in the previous presentation, resulting in the immediate disposal of five percent of the total, and retention date for a further 1,000 or so boxes dropping from indefinite to 15 years.

Overall, savings in storage from the trial project are expected to pay back in just four years, while reducing overall compliance risk.

Fiona discussed attempts made by the project to use smart software to automate the cataloguing process. These were not successful, partly due to the challenge in reading hand-written indexes; but also due to the lack of a standard industry ontology through which records retained post-decommissioning could be classified.

She noted that an 'agile' approach to projects such as this works well and advocated the establishment of a defined industry workflow for the classification of records to be retained after decommissioning, as, if an industry-wide system can be agreed, this has the potential to reduce costs for all.

3.2 Conclusions and Q&A

Martin Robb of the NDA queried the rate at which boxes could be manually catalogued, observing that his experience was a rate of 1,000 boxes per person per month. Fiona clarified that her rate was determined by the amount of resource her sub-contractor could make available to the project, rather than as a throughput per person.

4 Navigating the Oil & Gas Information Legacy

4.1 Presentation Overview

Dr Greg Gordon of the University of Aberdeen shared an overview of the legal process followed in the creation of the legislative review and example records retention schedule shared with industry.

Working with Constantinos Yiallourides, also of the School of Law at the University of Aberdeen, his first challenge was to focus the 300+ pages of the detailed retention schedule provided by Keith Batchelor on the context of offshore decommissioning, removing legislation that applied to the onshore, and also removing obligations that were corporate in nature (for example, relating to Companies House) rather than associated with oil and gas operations.

The resulting spreadsheet was then checked to ensure expected oilfield legislation was indeed present, and then categorised further according to the type of obligation listed—whether arising from primary obligation in legislation to retain documentation (e.g. from the Health and Safety at Work Act, or Control of Asbestos Regulations) or from secondary considerations, where a prudent company would wish to retain documents that may be needed in a legal defence.

In judging whether an obligation was worth retaining in the schedule, Greg took a precautionary approach resulting in a schedule that may be somewhat over-inclusive, but enabling individual organisations to reach their own conclusions based on their own view of legal risk, as to what should or should not be retained. However, he cautioned against treating the legal aspect as the only requirement for retention, instead recommending that the schedule be used as a baseline, while also recognising factors such as environmental, social or historical importance when considering retention or routes of disposal.

Greg also drew attention to a class of obligations that cannot be transferred when an offshore platform becomes ‘waste’ and is handed over to be dismantled and recycled. Waste handling legislation is designed to prevent transfer of waste to unscrupulous parties, and so operators will need to keep careful records that demonstrate handover was performed with appropriate due diligence; also, should a pollution incident occur during dismantling, demonstrate that all reasonably expected information regarding the platform was provided.

Greg noted that creation of the schedule was a big, albeit enjoyable job, which highlighted how few retention obligations currently exist in petroleum legislation; a situation that is due to change in April 2018 when new retention regulations are expected to be made by the Oil and Gas Authority.

In highlighting this change, Greg observed that the schedule will need regular maintenance to remain useful and suggested this be performed on an annual basis. He also noted that the schedule provides only the operator view of retention requirements and asked whether a similar exercise would perhaps be relevant for supply chain companies.

4.2 Conclusions and Q&A

Fiona Ribbeck noted the value of the retention schedule within Shell, sharing that, had it been created by Shell alone, it would have been a very expensive and time-consuming project to deliver. Fiona welcomed the contribution made by Greg, his colleague Constantinos Yiallourides and the University of Aberdeen in its creation.

5 The 1,000 Year Perspective: Records Retention at the NDA

5.1 Presentation Overview

Martin Robb of the Nuclear Decommissioning Authority described the business case for the retention of records within the NDA and the challenges he faces in implementing effective records management in a highly regulated industry undergoing a significant ‘crew change’.

The NDA currently has over 500,000 boxes of physical records to deal with, all suffering from issues familiar in the oil and gas industry regarding lack of metadata and poor indexing. A further 84 electronic document management systems and 300+ e-rooms must also be reckoned with, which together contain records beginning in the 1940s, through to the present day and looking forward already to 2120 and beyond.

The focus of records management activity in the NDA is in support of the packaging of radioactive waste as ‘Waste Packages’ which can then be stored until radiation levels have reduced to a safe level. For every cubic metre of waste, there exists one cubic metre of documentation to describe it. However, some documents are shared amongst many waste packages, offering efficiencies in how documents are stored, but also increasing the complexity of the records management challenge.

Governance of records is formalised within the NDA’s Information Governance Strategy and is being implemented through the Information Governance Programme; a critical part of which has been establishment of the ‘Nucleus’ facility at Wick (in north Scotland). The facility is being used to provide long term storage of NDA records, the Caithness Archives and (if capacity proves larger than needed) may also become the place of deposit for other types of public records.

The nuclear industry has developed its own records retention schedule (which includes only one record collection—that associated with a waste package) and the Information Governance Programme is now setting out on a three-year programme to catalogue appropriately its physical records, dispose of documents where no longer needed and otherwise to scan, digitise and transpose to archival materials documents that must be retained for years, decades, and in some cases for centuries.

The task of cataloguing is being addressed in a pragmatic manner, limiting the amount that will be fixed in historic records to only the minimum metadata necessary for retention purposes, while ensuring that metadata for new records is fully populated.

The preservation of digital records for hundreds of years presents challenges for which no current solution exists given the rate of change of software packages and file formats. The NDA is working with the [Digital Preservation Coalition](#) as part of a UK-wide initiative to address this across industry, the arts and the financial services sector.

Finally, Martin highlighted the limitations placed on him by the security classification of nuclear-related information in the use of commodity cloud infrastructure. These restrictions are driving the NDA towards building its own computing environment, so that the required combination of security and accessibility of information can be provided at reasonable cost.

6 Working Session

6.1 Aim

The workshop concluded with a working session intended to identify the information management issues arising during decommissioning that would benefit from being addressed at an industry level.

Participants worked at tables of up to six people to share the issues they faced, and then select one to be presented back to the workshop, along with a proposed way forward.

Finally, each issue was captured in an interactive poll, enabling participants to vote for the issue (or issues) proposed that would most benefit from being taken forward to an industry group to be progressed.

These issues and the results of the poll are shown below.

6.2 Results

The issues raised were as follows (matters raised by more than one table have been consolidated for brevity):

6.2.1 Adoption of Industry Standard Terminology for Decommissioning

If industry agreed on standard terminology for the classification of information relevant to decommissioning then this would enable cross-industry processes for the development and application of retention schedules to be developed, perhaps facilitating rationalisation and de-duplication of the vast numbers of archive boxes currently in storage, as per the Shell example.

A shared taxonomy/ontology would also be required for the development of machine analytics approaches to the rationalisation of archived material.

6.2.2 Development of a Top-Down IM Strategy during Decommissioning

Industry would benefit from the development and endorsement by the OGA of a top-down strategy for the management of information at the time of decommissioning. This would support the development and adoption of the taxonomy referenced above and simplify handover of information assets from one party to another, as a shared understanding would be present on the nature and purpose of the information transferred.

The OGA could act as the arbiter of this process, mandating that information transferred from one party to another prior to decommissioning met the standard as set out in Information and Samples Plans to minimise the risk of loss of information critical to the decommissioning process itself.

6.2.3 Development of the IM Business Case

A refreshed business case for Information Management is required that emphasises not just the regulatory requirements of IM, but also the business benefits arising from good IM practice. The business case should align with the regulatory framework in any case, supporting the prioritisation of IM activity in conversation with business leaders and line managers.

6.2.4 Future Proofing of Historical Data & Information

Knowledge capture continues to be an issue in the oil and gas industry. To address this matter, and to ensure the information required for decommissioning is available at the time

it is needed, operators currently decommissioning should share their experiences with those operators of assets that have recently been commissioned or have not yet reached end of life.

This will ensure that going forward, the range of information required at decommissioning is understood, is being preserved, and is stored in digital formats that will be accessible when needed.

6.2.5 Establishment of Common Processes in Decommissioning

Operators increasingly recognise that decommissioning activity is not competitive in nature and that all would benefit if the most efficient approach could be developed collaboratively and shared.

Operators should develop common approaches to common activities, such as standardisation of metadata and the classification and rationalisation of archival storage so that these can be performed at scale, for the lowest practical cost.

The industry should also consider other aspects of decommissioning to identify workflows and processes that are common between companies, so that available efficiencies can be realised.

6.2.6 Adoption of Decommissioning Retention Standards and Guidelines

The legislative review, example schedule and associated guidance are still new to most in industry and merit a higher profile at industry events to increase awareness and adoption.

A central advisory service would also be helpful in supporting their adoption and for more general awareness of training and best practice in this area.

6.3 Poll Results

The top three issues arising from the workshop poll were as follows:

1. Adoption of standards and guidelines
2. Adoption of standard industry terminology for decommissioning information
3. Future-proofing of historical data and information

6.4 Next Steps

Attendees voiced strong support to build on the progress made at the workshop, to act collaboratively to address the matters raised and explore the potential solutions that surfaced in discussion.

The consensus was that working collaboratively in these non-competitive areas offered the potential for initiatives that would yield substantial benefits, if they could be underwritten by compelling business cases, to be developed jointly.

CDA undertook to work towards the establishment of an industry forum which would concern itself with the effective and efficient management of information association with the full lifetime of an offshore asset. As the first step in this process, **CDA agreed to form a small working group drawn from workshop attendees, tasked with developing the terms of reference and governance structure of such a forum.**

Appendix A: Workshop Attendees

Organisation	Name	Organisation	Name
Alpha Petroleum	Sandy Smith	Marine Scotland	Peter Hayes
BP	Chris Brown	Neptune Energy	Andrew Kirkpatrick
BP	Peter Kennedy	Nexen	Joyce Adie
BP	Wilf McLellan	NDA	Martin Robb
BP	Hollie Capel	Oil & Gas UK	Shahana Shami
CDA	Daniel Brown	Pinsent Masons	Emily Thomson
CDA	Malcolm Fleming	Premier Oil	Jane Hodson
CDA	Sakthi Norton	Repsol Sinopec	Georgina Buggie
CDA	Richard Salway	Repsol Sinopec	Jeff Smith
Chevron	Claire Geddes	Robert Gordon University	Fionnuala Cousins
Chrysaor	Laura Hindmarch	Scottish Enterprise	Julie Roberts
Chrysaor	Jennie Morrison	Shell	Sarah Cormack
CNR International	Judith Rennie	Shell	Jackie Lockhart
ConocoPhillips	Chris Bamber	Shell	Fiona Ribbeck
ConocoPhillips	Marcia Rithammer	Shell	Ross Foubister
Consultant	Mandy Miller	Spirit Energy	Hazel Cowan
DataCo	Hugh Davies	Suncor Energy	Katrina McDonald
DataCo	Robert Swiergon	TAQA	Alan Campbell
D-Comms (Scotland)	Jim Rae	TAQA	Susan Robertson
Fairfield	Kathy Strachan	Total	Julia Coutts
Faroe Petroleum	Stein Hustad	Total	Gillian Taylor
Faroe Petroleum	John Youles	Troika International	Martin Gibson
Flare IM	Glenn Mansfield	Troika International	Audrey Hughes
GlideCom Consulting	Graeme Lamont	Tullow Oil	Peter Collins
GTS Geotech	Gareth Grundy	University of Aberdeen	Greg Gordon
Haliburton	Andrea Gallagher	Well Safe Solutions	Ben Foreman
Haliburton	Elizabeth Patock		
Iron Mountain	Mark Cameron		
Iron Mountain	Pam Leadbeatter		
Katalyst Data Management	Angus Craig		
Katalyst Data Management	Dave Norburn		
Ledingham Chalmers	Laura Petrie		
Leidos	Fiona Bartlett		
Leidos	Alf Michaelsen		
Leidos	Kristy Moir		
Lloyd's Register	Katie Begg		