

ENVIRONMENT, SAFETY, HEALTH & QUALITY FUNCTION

ANNUAL REVIEW ON SAFETY TO THE REGULATORY COMMUNITY

(CY 13)

© British Crown Owned Copyright 2013/AWE

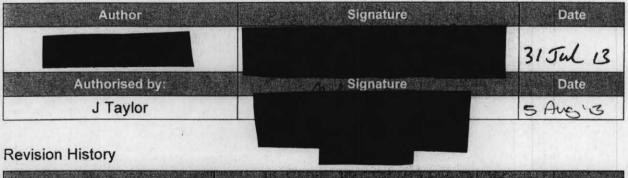
Published with permission of the Controller of Her Britannic Majesty's Stationery Office.

"This document is of United Kingdom origin and contains proprietary information which is the property of the Secretary of State for Defence. It is furnished in confidence and may not be copied, used or disclosed in whole or in part without prior written consent of Defence Intellectual Property Rights DGDCDIPR-PL - Ministry of Defence, Abbey Wood, Bristol, BS34 8JH, England."

THIS DOCUMENT IS THE PROPERTY OF HER BRITANNIC MAJESTY'S GOVERNMENT. It is issued solely for the information of those who need to know its contents in the course of their official duties. Outside Government service, this document is issued on a personal basis: each recipient is personally responsible for its safe custody and for ensuring that its contents are disclosed only to authorized persons. Anyone finding this document should hand it to a British forces unit or to a police station for its safe return to the MINISTRY OF DEFENCE, D Def Sy, Zone D (Mail Point), Level 6, Main Building, Whitehall, LONDON SW1A 2HB, with details of how and where found. THE UNAUTHORIZED RETENTION OR DESTRUCTION OF THIS DOCUMENT MAY BE AN OFFENCE UNDER THE OFFICIAL SECRETS ACTS 1911-89 (When released to persons outside Government service, this document is issued on a personal basis and the recipient to whom it is entrusted in confidence, within the provisions of the Official Secrets Acts of 1911-1989, is personally responsible for its safe custody, and for seeing that its contents are disclosed only to authorised persons.)."

DOCUMENT CONTROL SHEET

Document Authorisation



Issue	Date	Significant Changes

This document is distributed in electronic copy only.

CONTENTS

1	INTRODUCTION	4
2	ATTENDANCE	5
3	SLIDE PACK	
4	KEY POINTS / OBSERVATIONS RAISED DURING THE REVIEW	7
5	ESH PERFORMANCE	7
6	TRANSFORMATION	
7	MAJOR HAZARDS	7
8	INTERNAL REGULATION	8
9	OPERATIONAL EXPERIENCE AND LEARNING	8
10	Summary	8
11	LUNCHTIME PRESENTATION	8
12	SCIENCE & TECHNOLOGY	9
13	SITE	9
14		
15	FISSILE OPERATIONS	9
16	CAPITAL PROJECTS	9
17	REGULATORS SumMary	10
18	WASH UP	10
19		
20		
	20.1 Annex A: Review Slide Pack	
	20.2 Annex B: "POST IT" Capture Sheet	11
	20.3 Annex C: List of Actions	11
21	REFERENCES	11

1 INTRODUCTION

This meeting was the AWE annual presentation to the regulatory community.

The meeting notes comprise the following elements:

- A copy of all slides presented at the review
- Amplification of key points which were raised during the review as appropriate.
- A formal list of actions

Julie Taylor invited attendees to introduce themselves and gave an assurance moment which took the form of a personal reflection on the last year as Director ESH&Q. In summary:

- AWE's organisational focus continues to be developed to align to delivering the core mission. This has been enhanced by the (Target) Operating Model and functionalisation which went live on 2nd April 2013.
- Generally good progress is being made and the Incident & Injury Free workshops have brought a greater focus on leadership behaviours and accountabilities. However, there is still some way to go to strike the right balance between personal and process safety.

She then went on to introduce the general format of the presentations which would give an overview of performance, key regrets, learning and the forward focus.

on behalf of the Regulators thanked AWE for the success of the previous years Annual Review of Safety and the open and honest language that was used. He requested that in future the Annual Safety Report be issued in advance of the formal meeting to allow time to review and digest the information.

Action: (CY14/01): Head of OEL

2 ATTENDANCE

The attendance status for all or part of the Meeting is outlined below:

Name	Organisation	Remarks
Mrs Julie Taylor	AWE Director Environment Safety Health and Quality	Chairperson
Mr	HSE (HID) Regulator	
Mr	DNSR	
Mr	ONR Regulator	
Mr Common	ONR Regulator	
Mr	ONR Regulator	
Mr	ONR Regulator	
Mr	HSE Regulator	
Mr	ONR Regulator	
Mr —	ONR Regulator	
Mr	EA Regulator	
Mr	EA Regulator	
For AWE		
Dr .	Head of Applied Physics and Head of Technology Centre - Hydrodynamics	
Dr	Explosives Safety Lead	
Dr	Acting Head of Service, Major Hazards	
Dr	Head of Environment Safety and Health	
Mr .	Head of Operational Experience and Learning	

Name	Organisation	Remarks
Mr	Head of Construction ESH	
Mr	Head of Transformation Programme	
Mr	Programme Manager Major Projects	
Mr Mr	Head of Production Operations	
Mr	Regulatory Interface Manager	
Mr	Head of Assembly & Explosives Operations	
Mr	Head of Environment	
Mr	Site Manager Aldermaston	
Mr Mr	Head of Nuclear Safety	
Mr	Head of Internal Regulation	
Mr		
Mr	Pegasus Assurance System Manager	
Ms	Operational Assistant to Director ESH&Q	
Ms	ESH&Q Function	IT Provision
Mr	Central Operating Excellence Team	Secretary

3 SLIDE PACK

The slide pack is attached in Annex A to this report and comprises all presentations delivered during the meeting.

4 KEY POINTS / OBSERVATIONS RAISED DURING THE REVIEW

The key points and observations are outlined against each presentation. A number of further observations were made during the close out session which are summarised in Annex B.

5 ESH PERFORMANCE

gave an overview of ESH performance. There were no specific issues raised under this item.

6 TRANSFORMATION

gave an overview of transformation.

The regulatory community gave a positive response to the implementation of the (Target) Operating Model and the level of engagement and communication with the regulators. They advised moving forward cautiously and that continued/early engagement with appropriate regulators should be maintained.

The ONR expressed an interest in seeing examples of how transformation has improved the organisation as it develops and matures.

7 MAJOR HAZARDS

gave an overview of Major Hazard Operations

The regulatory community were complimentary of the approach to the development and deployment of Safety Cases on a Page (SCOAP) and this has helped lead the inspection regime for ONR. AWE is considered to be in the vanguard of industry. However, it is essential that SCOAPs become an effective part of normal working and are maintained under appropriate configuration control processes.

The ONR asked whether SCOAP has been rolled out across all of AWE's facilities. To date approximately 150 SCoaPs have been produced, prioritised based on hazard, with those related to high hazard processes produced and delivered within an 18 month window.

The concept has been rolled out across AWE and now forms part of the AWE plc Company Arrangements.

Head of Major Hazards, indicated that AWE would be undertaking benchmarking activities looking at other installations such as Pantex and Sandia National Laboratory in the USA for learning opportunities.

The explosives regulator was appreciative of AWE's involvement and contribution to the industry led Explosives Sector Leadership Group comprising the UK's principal explosives manufacturers.

8 INTERNAL REGULATION

gave an overview of Internal Regulation

The regulatory community were encouraged by the direction AWE is taking with the development of its Internal Regulation regime and the opportunities for joint inspections with going forward.

The regulatory community did however raise an observation that AWE needed to ensure the IR process was implemented in a thorough manner as it had not identified a number of key issues which had been picked up by HID.

It was agreed that AWE would share the Review Learn Improve report on PEGASUS with the regulatory community.

9 OPERATIONAL EXPERIENCE AND LEARNING

gave an overview on Operational Experience and Learning

The ONR expressed a perception that there was reluctance in some areas to raise INF1's. This view was not necessarily shared by AWE, but is useful feedback that would be investigated as the INF1 processes in still relatively new.

AWE is actively encouraging all personnel to be aware of their assurance responsibilities and to raise the appropriate observations by engendering a culture of transparency and "no blame". This also includes, if appropriate, the engagement of the regulatory community as early as possible.

The regulatory community requested that there was clarity over the definitions of Assurance Event and Assurance Observation Reports. This is being addressed in the current review of the LC7 arrangements.

10 SUMMARY

Overall the Regulators saw AWE's performance improving with good practice within construction safety, Sustainability Plans that were examples of best industry practice, achievements in ISO14001 and environmental baseline techniques, Internal Regulation and involvement with the Safety Directors Forum Working Groups and improvements in root cause analysis.

However there were a number of shortfalls to be addressed, particularly around the consistency and quality of documentation submissions.

11 LUNCHTIME PRESENTATION

	provided an illuminating and passic	onate
presentation that outlined the	purpose of, and some of the current is	
surrounding the	The regulatory community thanked	for
his presentation and looked for	ward to understanding how some of the les	sons
learned have been embedded	into future work. They also requested one	going

12

13

14

15

communication to allow the regulatory programme to be aligned into the
re-iterated both his and his team's commitment to the AWE ethos of Safe, Secure and Clean operations.
SCIENCE & TECHNOLOGY
gave and overview of Science and Technology
ONR advised that AWE should provide a comprehensive description of what facilities are to be used for when making future PRS submissions. This will enable the regulator to provide targeted advice.
SITE
provided an overview of Site
A key observation was that one to one conversations with the regulator appear to be more productive and lead to a more frank and open dialogue than larger forums. All agreed to consider this as part of ongoing communications.
ONR commented that the regulators need to improve communication on the potential regulatory risk implications of AWE programme changes.
ASSEMBLY & EXPLOSIVES
provided and overview of Assembly and Explosive Operations
HID requested that the regulators must be given adequate lead time in which to consider submissions. Changes to document or site visits dates should be communicated to the regulatory community as soon as possible to enable the regulator to re-schedule their work loads were possible.
This was illustrated with the was a which has been delayed and is now impacting on the regulators resource availability.
FISSILE OPERATIONS
gave an overview of Fissile Operations
ONR commented that early regulatory involvement with re-kit projects is important to ensure the right regulatory position. It was also indicated that it would be helpful to all parties if submissions could be grouped in order to reduce the processing and review times.

16 CAPITAL PROJECTS

gave and overview of Capital Projects

ONR requested AWE supply a consolidated list of major projects submission documents together with the planned submission dates.

ACTION: CY/14/02:

17 REGULATORS SUMMARY

ONR

- Regrets as presented were broadly agreed and were accurate and as expected
- Right behaviours are being demonstrated at senior levels within AWE
- Need to improve the quality and consistency in relation to some document submissions
- Response to incidents is good

There is a need to develop a common understanding of terminology

With regard to the presentations:

- Messages are positive
- A lot of information was presented. The issuing of the annual report prior to the meeting would enable all to review and provide quality input and comment and should be considered in future
- Positive response to AWE internal regulation activities
- Language used in the formal written report should reflect the openness and honesty demonstrated during the formal meeting
- It was a good meeting although there may be some recommendations to change the format for the future

HSE

The HSE expressed interest in incidents which result in injury when hazardous materials are involved

EA

Reiterated the importance of:

- Early engagement
- Quality of submissions
- AWE to continue to strive to become an "Intelligent Operator"
- AWE should consider producing a compliance statement against all appropriate regulatory requirements

18 WASH UP

Julie Taylor thanked the regulatory community for their help in ensuring AWE continues to meet its licence conditions and other statutory commitments and for providing timely support when requested.

The regulatory community also expressed its thanks to AWE for the commitment and effort provided to make this annual review meeting a success.

19 ACTION MANAGEMENT

The list of actions is shown at Annex C.

20 LIST OF ANNEXES

20.1 Annex A: Review Slide Pack

20.2 Annex B: "POST IT" Capture Sheet

20.3 Annex C: List of Actions

21 REFERENCES

Meeting Terms of Reference (TBC)

Annex A

REVIEW SLIDE PACK



Annual Review of Safety Contract Year 13

1st April 2012 to 31st March 2013

CONFIDENTIAL

CONFIDENTIAL

Agenda

Company Performance

AWE

- 11:00: Welcome and Today's Key Messages
- 11:10: Assurance Moment 11:15: ESH Performance
- 11:30: Transformation
- 11:40: Major Hazards (Process, Nuclear, Explosive, Environment)
- 12:05: Internal Regulation
- 12:15: Learning from Experience 12:30: Questions / Feedback

Operational Performance

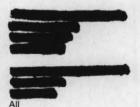
- 12:45: Working Lunch / Programme overview 13:45: Science & Technology
- 14:05: Assembly & Explosives

- 14:30: Assembly & Explos 14:30: Fissile Operations 14:55: Coffee Break 15:10: Major Projects 15:35: Sites Programme 16:00: Overview
- 16:15: Questions / Feedback / Work going forward
- 16:30: Meeting Close

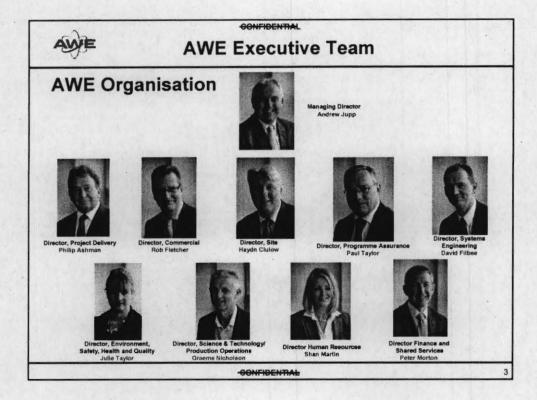








CONFIDENTIAL



AWE

CONFIDENTIAL

AWE Key Themes & Messages

- Programme Delivery Focus / Context
- Performance Improvement
 - Conventional Safety
 - Process Safety
 - Hazard and Risk Reduction
- Transformation Delivering Excellence
 - Organisation
 - Leadership
 - Culture
- Vision and Way Forward

CONFIDENTIAL



AROS Objectives & Review

- Presentation material covering review of CY13 (1st April 2012 31st March 2013), including
 - Successes
 - Regrets and Learning
 - Actions taken and Continuous Improvement activities initiated
 - CY14 look-ahead / focus / priorities
- Structured Discussion
 - Summary of key messages
 - Recognition of strengths / best practices
 - Identification of any gaps / latent weaknesses
 - "Case for Continued Operation" debate

CONFIDENTIAL



CONFIDENTIAL

Agenda

Company Performance

- 11:00: Welcome and Today's Key Messages
- 11:10: Assurance Moment
- 11:15: ESH Performance
- 11:30: Transformation
- 11:40: Major Hazards (Process, Nuclear, Explosive, Environment)
- 12:05: Internal Regulation
- 12:15: Learning from Experience
- 12:30: Questions / Feedback

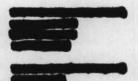
Operational Performance

- 12:45: Working Lunch / Programme overview
- 13:45: Science & Technology 14:05: Assembly & Explosives
- 14:30: Fissile Operations
- 14:55: Coffee Break
- 15:10: Major Projects
- 15:35: Sites Programme
- 16:00: Overview
- 16:15: Questions / Feedback / Work going forward
- 16:30: Meeting Close

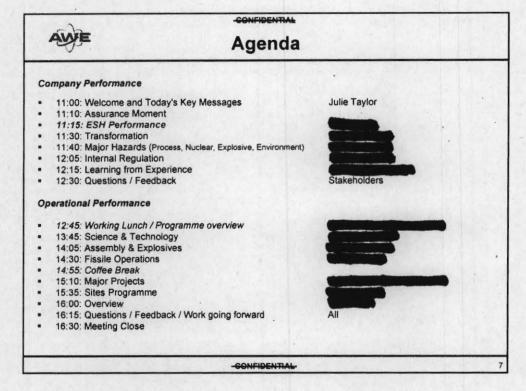
Julie Taylor



Stakeholders



CONFIDENTIAL



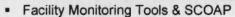
AWE

CONFIDENTIAL

ESH Performance Overview

Successes

- Process safety
- Construction ESH performance
- Leading performance indicators
- Response to the fire in 3rd August 2010
- Transformation activities
- Key agreements with regulators



- Our ESH Culture
- Explosive Sector and SDF Safety Case Sub Group Leadership
- Continuation of risk reduction through capital build
- ISO 9001 Recertification

CONFIDENTIAL



ESH Performance Overview

Regrets

- HID prosecution
- ONR Improvement Notice re A45
- Tritium in North Ponds
- OSHA statistics
- Maintenance and asset integrity regime
- Pace with respect to HAW (SILW) and movement control arrangements
- Consistency of investigation and learning
- Relationship and communications with regulators on specific subjects
- Flexible permissioning

CONFIDENTIAL

9

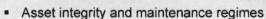


CONFIDENTIAL

ESH Performance Overview

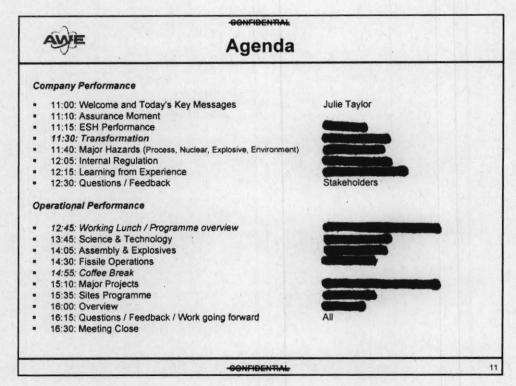
Forward Focus/Challenges

- .
- PRS activities for key areas
- Capital build and transition to new facilities



- Mk4a assessment
- ESH Culture Behaviours
- · Regulatory relationships and environmental focus
- Closer integration of ESH&Q leading quality indicators

CONFIDENTIAL



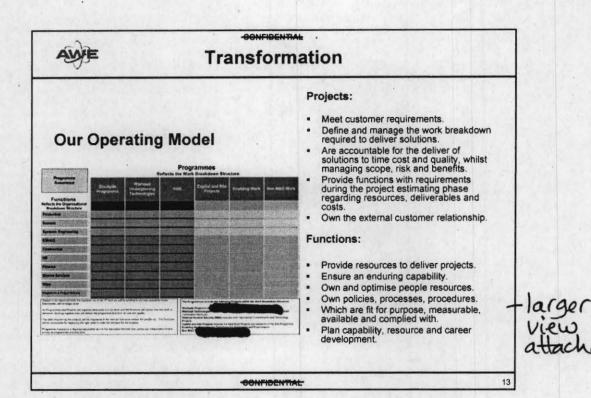


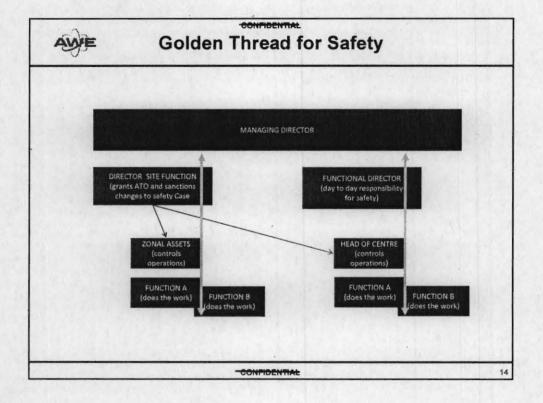
Transformation

The main work streams are:

- Target Operating Model improved accountability and safety of operation through task and line management
- Control Framework improved accountability through standardisation and process configuration management
- Business Performance Management improved measures through visible techniques and identifying cause and effect leading to safer operation

CONFIDENTIAL

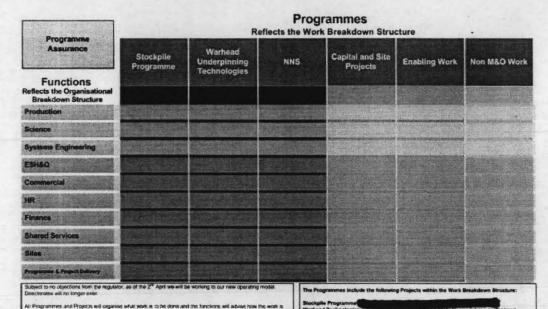






Transformation

Our Operating Model

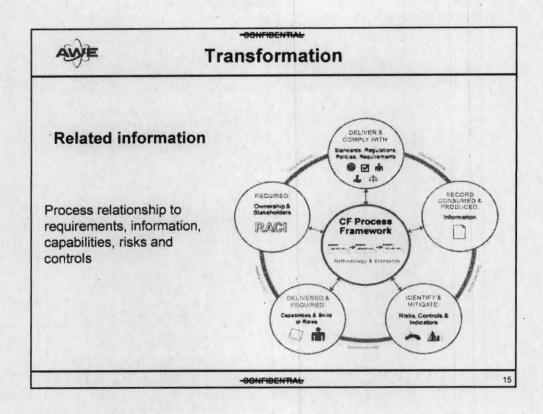


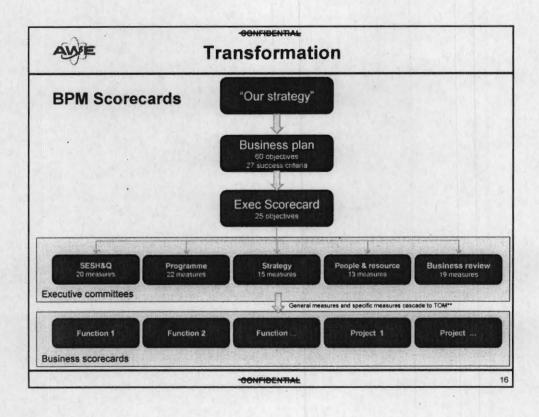
Projects:

- Meet customer requirements.
- Define and manage the work breakdown required to deliver solutions.
- Are accountable for the deliver of solutions to time cost and quality, whilst managing scope, risk and benefits.
- Provide functions with requirements during the project estimating phase regarding resources, deliverables and costs.
- Own the external customer relationship.

Functions:

- Provide resources to deliver projects.
- Ensure an enduring capability.
- Own and optimise people resources.
- Own policies, processes, procedures.
- Which are fit for purpose, measurable, available and complied with.
- Plan capability, resource and career development.







Transformation

Next Steps

- Embedded and refine TOM help AWE show greater delivery and safety performance
- Step up delivery of the Control Framework simplified and streamlined delivering clear accountabilities
- Launch transparent performance measures across the business to improve safety and reduce risk
- Develop a framework for prioritised process improvement with OE to further improve our safety, security and performance

CONFIDENTIAL

17



CONFIDENTIAL

Agenda

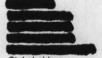
Company Performance

- 11:00: Welcome and Today's Key Messages
- 11:10: Assurance Moment
- 11:15: ESH Performance
- 11:30: Transformation
- 11:40: Major Hazards (Process, Nuclear, Explosive, Environment)
- 12:05: Internal Regulation
- 12:15: Learning from Experience 12:30: Questions / Feedback

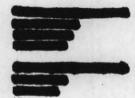
Operational Performance

- 12:45: Working Lunch / Programme overview
- 13:45: Science & Technology
- 14:05: Assembly & Explosives
- 14:30: Fissile Operations
- 14:55: Coffee Break
- 15:10: Major Projects 15:35: Sites Programme
- 16:00: Overview
- 16:15: Questions / Feedback / Work going forward
- 16:30: Meeting Close

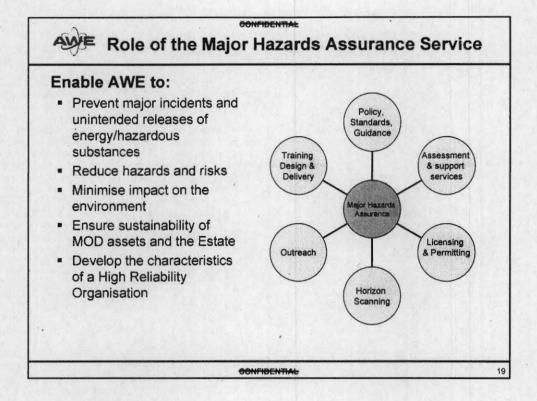
Julie Taylor

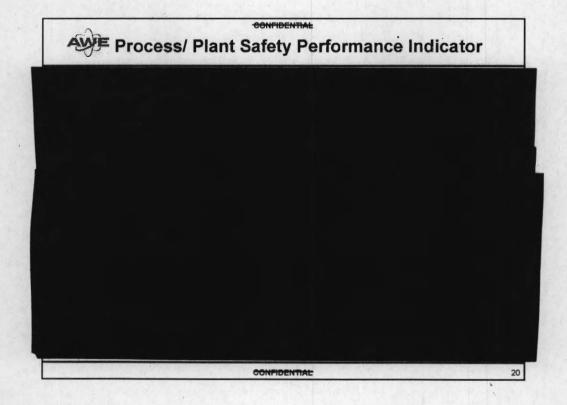


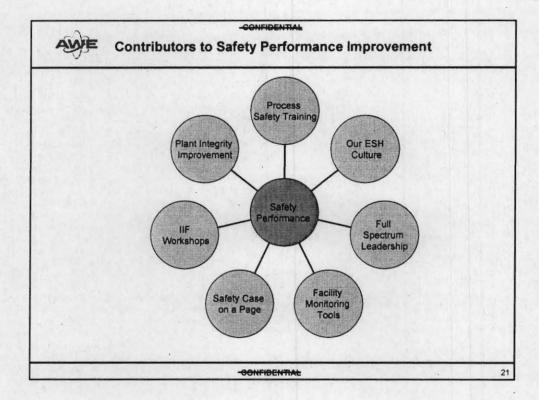
Stakeholders



CONFIDENTIAL









Process Safety Review

- Cross-company team led by Director, Programme Assurance
- Review recent events, identify common causes, recommend improvements
- Salient themes
 - Identifying and evaluating major hazards
 - Leadership and supervision
 - Procedural adherence
 - Competence
- Key actions
 - Process Safety Leadership Training & Senior Management walkthroughs
 - Increased science and engineering input to risk assessment
 - Clarify Supervisor Roles and Accountabilities
 - Improve Operator hazard awareness
 - Develop leading indicators and detection of weak signals

CONFIDENTIAL



-OONFIDENTIAL

Improved integration

- Significant activity across AWE relevant to control of Major Hazards
 - asset management
 - · facility and process design engineering
 - · leadership and operator development
 - · information management
 - safety justification
- Benefit in integration
- Study initiated to scope project
- Benchmark against recognised standards and identify improvements

-OONFIDENTIAL

23



CONFIDENTIAL

Progress & Achievements

- uncertainty
- good engagement following initial
- Inter-industry liaison through SDF pursuing a number of workstreams
- · Fukushima: action closeout and cross-enterprise engagement
- SEVESO III plans in place
- Formation of Explosives Sector Leadership Group
- Sustainability Plan in place
- ISO 14001Re-certification

CONFIDENTIAL



Future focus

- Support to
- Improved risk assessment and safety justification
- Hazard reduction
- Development of leading indicators
- Leadership capabilities and leadership engagement
- Supervisor & operator awareness and competence
- 'Keeping up the drum-beat' Learning from disasters
- Transition to new facilities,
- Environment action plan
- Sharing good practice
- Improved integration across the business

CONFIDENTIAL

25



CONFIDENTIAL

Agenda

Company Performance

- 11:00: Welcome and Today's Key Messages
- 11:10: Assurance Moment
- 11:15: ESH Performance
- 11:30: Transformation
- 11:40: Major Hazards (Process, Nuclear, Explosive, Environment)
- 12:05: Internal Regulation
- 12:15: Learning from Experience
- 12:30: Questions / Feedback

Operational Performance

- 12:45: Working Lunch / Programme overview
- 13:45: Science & Technology
- 14:05: Assembly & Explosives
 14:30: Fissile Operations
- 14:55: Coffee Break
- 14:55: Coffee Break 15:10: Major Projects
- 15:35: Sites Programme
- 16:00: Overview
- . 16:15: Questions / Feedback / Work going forward
- 16:30: Meeting Close

Julie Taylor



Stakeholders



CONFIDENTIAL



-OONFIDENTIAL

Internal Regulation

- Internal Regulation Service Improvements
 - · Team strengthened to included WH Safety Expertise
 - Peer Review reports more challenging
 - Topic surveillance integrated with corporate audit programme
 - More customer focused
 - Regulatory Interface Lead

CONFIDENTIAL

27

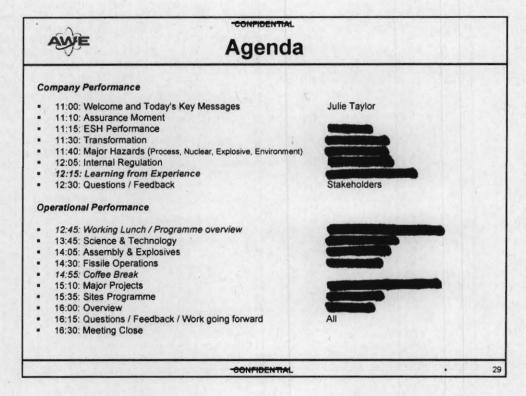


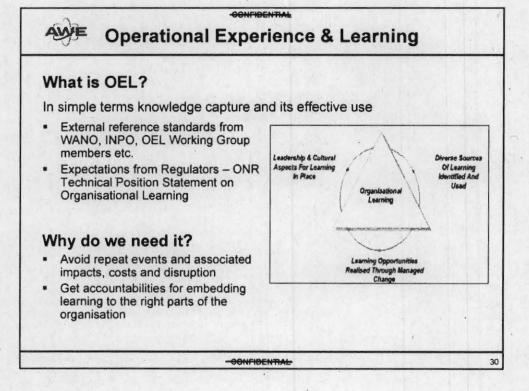
CONFIDENTIAL

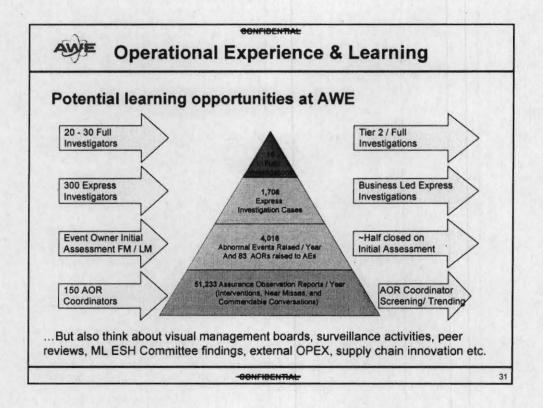
Internal Regulation

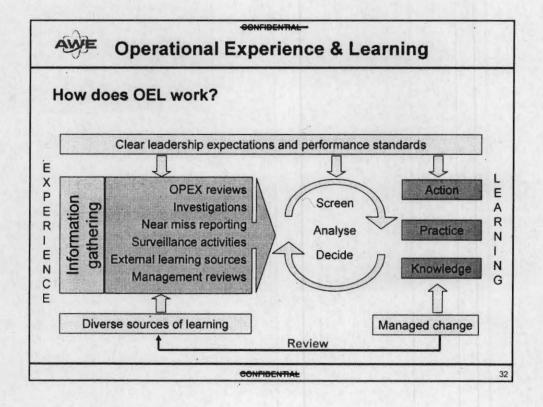
- Observations from Internal Regulation Activities
 - CfCO Reports
 - Staged Safety Reports
 - Delivery
 - Behaviours
 - Links with External Regulators

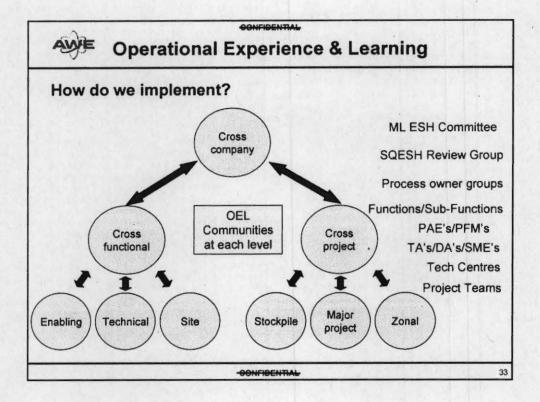
CONFIDENTIAL











AWE

CONFIDENTIA

Operational Experience & Learning

What are we doing?

- Establishing sustainable OEL framework and accountabilities leadership commitment
- Quality of investigations and root cause analysis key learning outcomes to be communicated quicker and more effectively
- Bringing in full time investigators for proactive interventions
- Capturing learning from process safety improvement activities weekly/monthly AE governance
- Working with Process Owners to embed OPEX and learning as part of process improvements e.g. CfCO, , PRS, stage gate reviews, VMB etc.
- Integrating OEL into key roles, SME's, DA's, TA's, OE activities and GB/BB network
- Building intelligent reporting and analysis of information
- Driving standard up of daily learning briefs and OPEX reports
- Integrate into wider company learning framework

KNOWLEDGE | PRACTICE

ACTION

CONFIDENTIAL

Operational Experience & Learning

What benefit will it bring?

- Reduction in accidents and incidents through right first time
- Associated quality improvements
- Quicker transfer of knowledge across organisation
- Clarity of accountabilities in operating model
- Value capture/efficiencies
- More sustainable organisation and supply chain
- Improved confidence and reputation



CONFIDENTIAL

Agenda

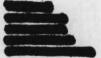
Company Performance

- 11:00: Welcome and Today's Key Messages
- 11:10: Assurance Moment
- 11:15: ESH Performance
- 11:30: Transformation
- 11:40: Major Hazards (Process, Nuclear, Explosive, Environment)
- 12:05: Internal Regulation
- 12:15: Learning from Experience
- 12:30: Questions / Feedback

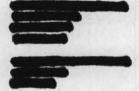
Operational Performance

- 12:45: Working Lunch / Programme overview
- 13:45: Science & Technology
- 14:05: Assembly & Explosives
- 14:30: Fissile Operations 14:55: Coffee Break
- 15:10: Major Projects 15:35: Sites Programme
- 16:00: Overview
- 16:15: Questions / Feedback / Work going forward
- 16:30: Meeting Close

Julie Taylor



Stakeholders



CONFIDENTIAL

37

AWE Agenda Company Performance 11:00: Welcome and Today's Key Messages Julie Taylor 11:10: Assurance Moment 11:15: ESH Performance 11:30: Transformation 11:40: Major Hazards (Process, Nuclear, Explosive, Environment) 12:05: Internal Regulation 12:15: Learning from Experience 12:30: Questions / Feedback Stakeholders Operational Performance 12:45: Working Lunch / Programme overview 13:45: Science & Technology 14:05: Assembly & Explosives 14:30: Fissile Operations 14:55: Coffee Break 15:10: Major Projects 15:35: Sites Programme 16:00: Overview 16:15: Questions / Feedback / Work going forward 16:30: Meeting Close



CONFIDENTIAL

-CONFIDENTIAL

DPO Leadership ESH Plan 2013

"The pride our people take in performing all aspects of their work is influenced by their Leadership community, the tools and opportunities they're provided and their environment"





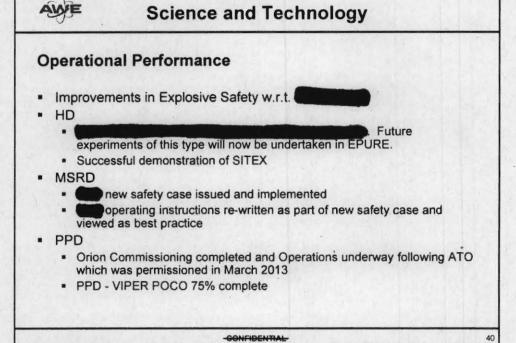


- ·Highly visible leadership, leading by example
- Clear expectations and personal commitment
- •Tools: Data analysis, the Belt community, Process Safety, Walk-downs, Validation, EPIP
- •the expertise of the ESH&Q Function
- ·Focus on supervisors
- ·Focus on working environment



CONFIDENTIAL

Agenda Company Performance Julie Taylor 11:00: Welcome and Today's Key Messages 11:10: Assurance Moment 11:15: ESH Performance 11:30: Transformation 11:40: Major Hazards (Process, Nuclear, Explosive, Environment) 12:05: Internal Regulation 12:15: Learning from Experience 12:30: Questions / Feedback Stakeholders Operational Performance 12:45: Working Lunch / Programme overview 13:45: Science & Technology 14:05: Assembly & Explosives 14:30: Fissile Operations 14:55: Coffee Break 15:10: Major Projects 15:35: Sites Programme 16:00: Overview 16:15: Questions / Feedback / Work going forward 16:30: Meeting Close -OONFIDENTIAL



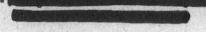
CONFIDENTIAL



Science and Technology

Regrets and Learning

- Hydrodynamics
 - Extensive 'tidy up' activity following recognition that housekeeping standards had fallen to an unacceptable level
 - Safety Case delayed due to other priorities
 - Significant injury (broken ankle) due to slip on external staircase combination of individual behaviour and design of construction enclave
- MSRD
 - BARRIER SWATE
 - PRS completed but ONR concerns over documentation and decision delayed



- CONFIDENTIAL

4



-OONFIDENTIAL

Science and Technology

Regrets and Learning

- Plasma Physics
 - . VIPER
 - Orion Commissioning completed has highlighted
 and costly replacement of chiller system has been undertaken
 - Significant AE's involving overturned Jib Crane and full investigation on scaffolding and temporary access structures in Orion. Learning related to design and installation considerations on both accounts as the jib crane was being moved between floors to handle Diagnostics.

CONFIDENTIAL



Science and Technology

Forward Focus

- HD Preparations for handover of TDC
- Safety Case implementation
- Materials Sub-Function Continuing discussions with ONR on PRS and associated issues;
- Culture focusing on
 - Increased management visibility in workplace (hazard reduction, safety conversations, SSOW compliance
 - Housekeeping using 6S process
 - Introduction of best practice from construction areas e.g. highly visible messaging, ESH staff on plant
 - Safe Science workshops

CONFIDENTIAL

43



CONFIDENTIAL

Agenda

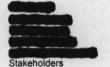
Company Performance

- 11:00: Welcome and Today's Key Messages
- 11:10: Assurance Moment
- 11:15: ESH Performance
- 11:30: Transformation
- 11:40: Major Hazards (Process, Nuclear, Explosive, Environment)
- 12:05: Internal Regulation
- 12:15: Learning from Experience 12:30: Questions / Feedback

Operational Performance

- 12:45: Working Lunch / Programme overview
- 13:45: Science & Technology
- 14:05: Assembly & Explosives
- 14:30: Fissile Operations
- 14:55: Coffee Break
- 15:10: Major Projects
- 15:35: Sites Programme
- 16:00: Overview
- 16:15: Questions / Feedback / Work going forward
- 16:30: Meeting Close

Julie Taylor







CONFIDENTIAL



Assembly & Explosives

Performance

Safety

- Close out of the 11 fire recommendations
- ...
- replaced and commissioning complete in
- Facility Monitoring Tools programme embedded and adherence to programme achieved. Trend analysis shared corporately to identify improvement opportunities
- Review of legacy waste conducted Disposal plan formulated
- ESH Culture survey and forward action plan
- Review of Risk Assessments / Safety Basis and ownership

- CONFIDENTIAL

4



-CONFIDENTIAL

Assembly & Explosives

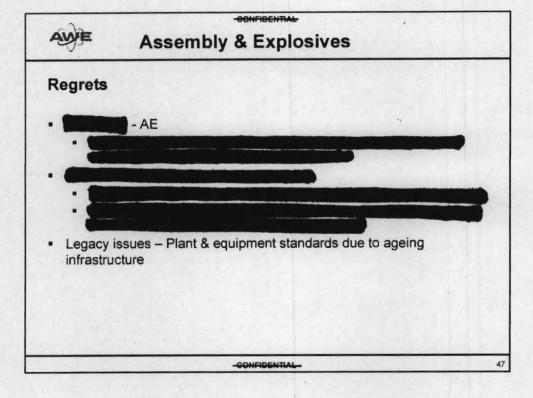
Performance

Operations

- Manufacturing
 - .
 - .
- Projects / Re-kits
 - MENSA
 - CIRCINUS
 - -
 - Cygnus

CONFIDENTIAL

4€



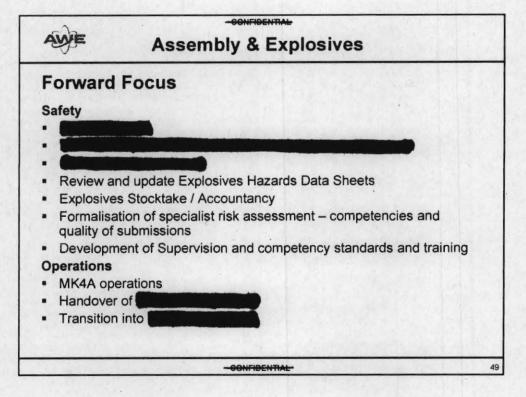


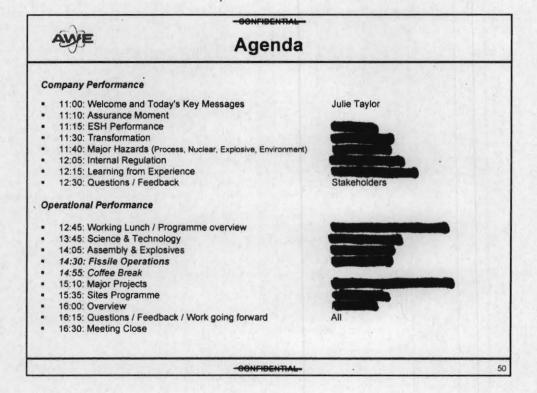
Assembly & Explosives

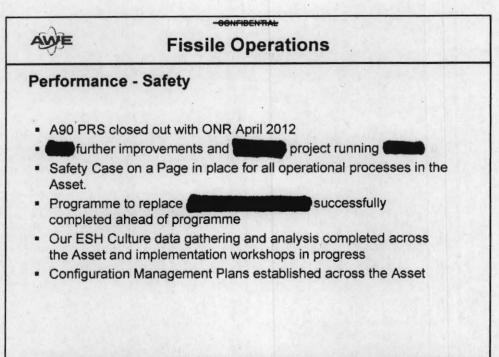
Learning

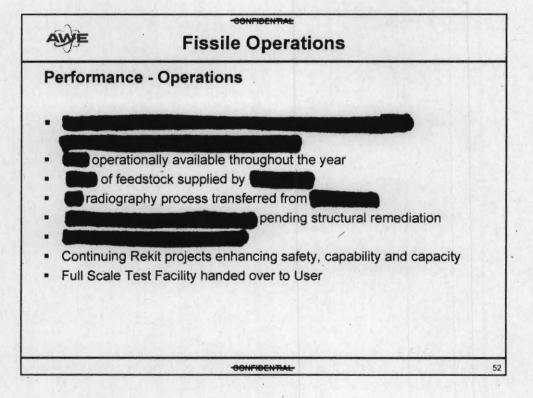
- Increased visibility and intelligence capture from risk based inspections with improvement opportunities identified, implemented and tracked on For@ction.
- Process safety reviews integrated engineering, safety and operational approach.
- Enhanced communication via Visual Management Boards (VMBs) at all levels used on a daily basis.
- Lack of suitable skill-set for ESH function need to educate people in hazard awareness and safety case / safety basis and risk assessment process.
- Need to ensure integrated configuration management and control.

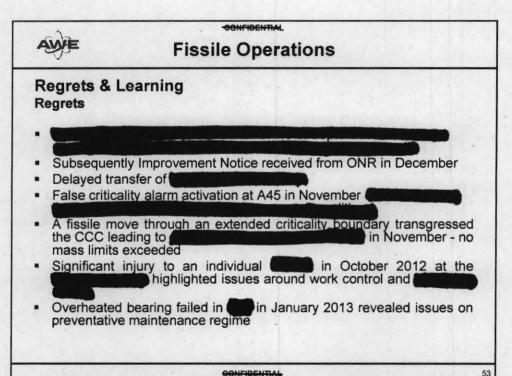
CONFIDENTIAL













Fissile Operations

Regrets & Learning Learning

- Maintained programme of process surveillance and walkdown programmes as part of Facility Monitoring Tools
- Introduced 6S process into A90
- Strengthened the arrangements for moving fissile material
- Continue the Working Together meetings with our Safety Reps and in future include the wider Technology Centre
- Improved the management, control and supervision of Material Controllers
- Continued to improve quality of assurance and operational documentation
- Improved storage arrangements for r/a contaminated liquid wastes in

CONFIDENTIAL



Fissile Operations

Forward Focus

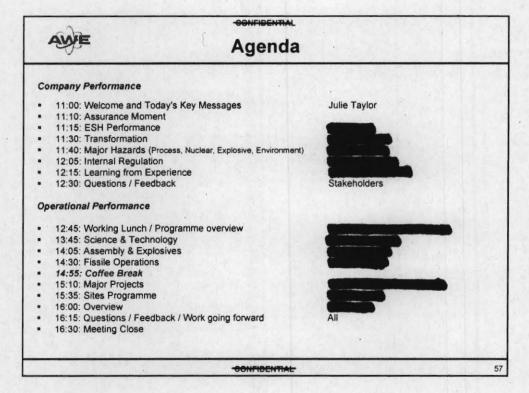
Safety

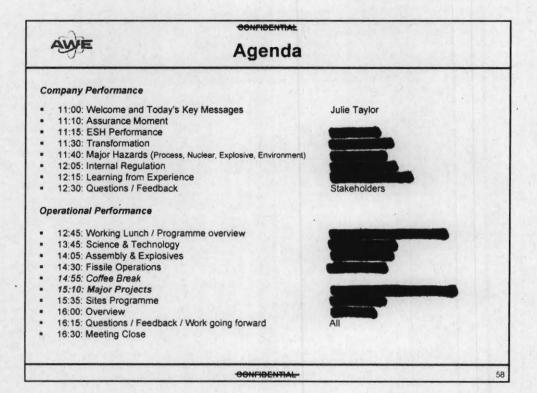
- Licence Instrument granted and implementation underway of programme to remediate A45 column structural issues, working towards close out of the ONR Improvement Notice and to return the facility to an operational state
- Deliver outputs within Our ESH Culture framework in A90 and A45 and roll-out to rest of Tech Centre facilities
- Pilot Process Validation activity on process in process in process.
- Implement strategy to reduce in-line fissile material holdings within
- Undertake the next PRS programme
- Complete safety justifications to enable transfer of

CONFIDENTIAL

5

Fissile Operations Forward Focus Operations Manufacturing Undertake a Restart programme Production Process Improvements Quality improvements Continue the Rekit projects







Major Projects

ESH Performance

Hours worked – 3.75 million (April 2012 to March 2013)

Injuries – 1 x RIDDOR/Days Away Case – 3 x OSHA Medical Treatment Cases – 1 x OSHA Days Away case - 32 x First Aids

AORs Raised – 33,776 (Average of 2,815 per month)

Total Recordable Injury Rate April 2012 – 0.41 March 2013 – 0.38

First Aid Injury Rate
 April 2012 – 4.17 March 2013 – 2.09

Headlines

- Apr 2012 RoSPA Gold Medal (6 consecutive Gold Achievement Awards).
- Sep 2012 British Safety Council 5 Star SMS Audit 5 Stars. (2nd Award)
- Oct 2012 British Safety Council Sword of Honour (International). (2nd Award)
- Oct 2012 British Safety Council 5 Star EMS Audit 5 Stars (1st Award)
- Dec 2012 Mensa Project 1 calendar year without an OSHA Recordable.
- Feb 2013 Projects Group 12 months without an OSHA Recordable
- Mar 2013 Lowest First Aid / All Injury Rates for construction since recording.

CONFIDENTIAL

59



CONFIDENTIAL

Regrets

- Pegasus PCSR 2 submission and regulatory relationship
- One RIDDOR Injury and Four OSHA recordable injuries:
 - Fractured thumb when struck with a hammer, May 2012 (TDC)
 - Struck by concrete pump hose, June 2012 (TDC)
 - Cut to finger and thumb with hand saw, Nov 2012 (BH)
 - Hand trapped between two steel beams, Sept 2012 (Phoenix)
 - Cut above top lip when hit with re-bar, March 2013 (Mensa)

CONFIDENTIAL



Major Projects

Learning

- Introduction of a weekly Construction OEL brief.
- Improved learning between major Projects and Projects Group ESH practices. Resulting in excellent ESH performance in Projects Group.
- Environmental awareness training rolled out for construction following series of events.
- Improved governance over the Construction phase of projects with the introduction of the Construction ESH Review Panel.
- Improved performance with excavations following re-SQEP of our excavation supervisors and re-writing MSP 715

CONFIDENTIAL

61



CONFIDENTIA

Major Projects

Forward Focus

- Deliver the AWE Culture programme to all in Capital Projects.
- Utilise our Soft Signals (leading indicator) data to be more proactive in identifying trends across our sites.
- Supporting Transition to Operations
- Supply Chain improvements
- Continue to improve our TRIR.

CONFIDENTIAL



Major Projects

Forward Focus (2)

- Licence Instrument for Pegasus PCSR 2
- Submission of MENSA PCSR 3
- Submission of Pegasus PCSR 3
- Revised Safety Case Delivery Strategy for MENSA
- Shared best practice MENSA
- Timely delivery/release of hold points
 - Quality of submission
 - Delivery to schedule
 - Effective use of level 4 RIMs no surprises

CONFIDENTIAL

63



CONFIDENTIAL

Agenda

Company Performance

- 11:00: Welcome and Today's Key Messages
- 11:10: Assurance Moment
- 11:15: ESH Performance
- 11:30: Transformation
- 11:40: Major Hazards (Process, Nuclear, Explosive, Environment)
- 12:05: Internal Regulation
- 12:15: Learning from Experience
- 12:30: Questions / Feedback

Operational Performance

- 12:45: Working Lunch / Programme overview
- 13:45: Science & Technology
- 14:05: Assembly & Explosives
- 14:30: Fissile Operations
- 14:55: Coffee Break
- 15:10: Major Projects
- 15:35: Sites Programme
- 16:00: Overview
- 16:15: Questions / Feedback / Work going forward
- 16:30: Meeting Close

Julie Taylor



Stakeholders



-OONFIDENTIAL



Site

Performance - Operations

- Management and control of radioactive sources
- WMG decommissioning A Perfect Year for both projects
- Logistics authorisation & forthcoming legislation changes
- Hazard Reduction
 - · Radiological End Point reached for
 - 4 x glove boxes size reduced in
- Decommissioning overview
- Utilities CfCO and new build
- Engineering LC28 and LC22 ONR Enhanced Inspection arrangements fit for purpose
- TOM and baseline changes





CONFIDENTIAL

6



CONFIDENTIAL

Site

Performance - Operations

- Initiated engineering plant integrity programme
- Pilot studies including improvements to plant and equipment maintenance
- RA characterisation of the OWMG Package 1 buildings
- A total of 32 gantry spans were removed from OWMG
- Asbestos strip of OWMG buildings commenced
- 221 bags = 3 x 8yd skips of MMMF removed and despatched as "out of scope" from OWMG
- Asbestos strip of commenced and REP attained



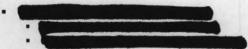


CONFIDENTIAL



Site

Performance - Safety



- Site PRS close out
- Fukushima recommendation completion
- Radiological Protection
 - Continued dose reduction in high hazard facilities whilst
 - Implementation of electronic system for undertaking radiation/contamination surveys
 - Improved monitoring capability for emergency response under LC11
- Update of Site Emergency Plans for Aldermaston and Burghfield; Submission of revised REPPIR Report of Assessment for AWE Aldermaston
- Shift Review clear accountabilities identified and exercised.

CONFIDENTIAL

67



-CONFIDENTIAL

Site

Regrets and Learning

- Forward area emergency control arrangements are under review following learning from a number of exercises
- Pace of change programme, SILW
- Radiological Protection
 - Linkage between HP surveys and LC34 needs to be strengthened
 - Radiation Protection Supervisors remain under utilised need to be more involved in RP decision making
- 3H in North Ponds.
- Omission to produce report for Natural England as a condition of Habitat Management Licence.
- HAW Programme progress
- Early engagement with Regulators
- LC 32 detailed inspections

-OONFIDENTIAL

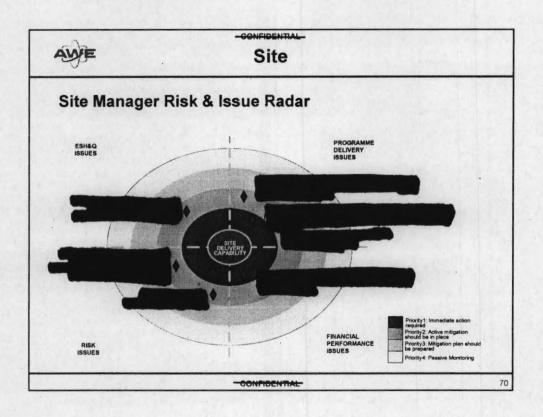


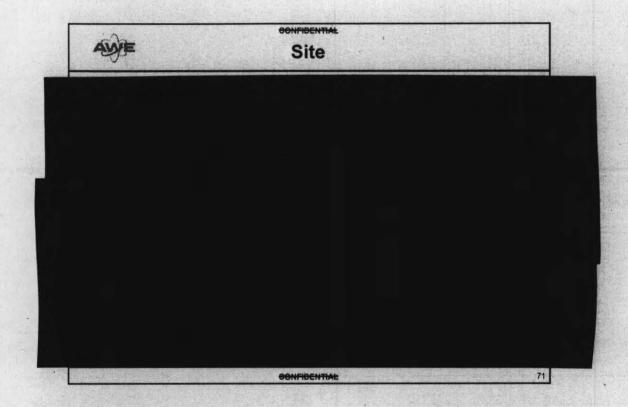
Site

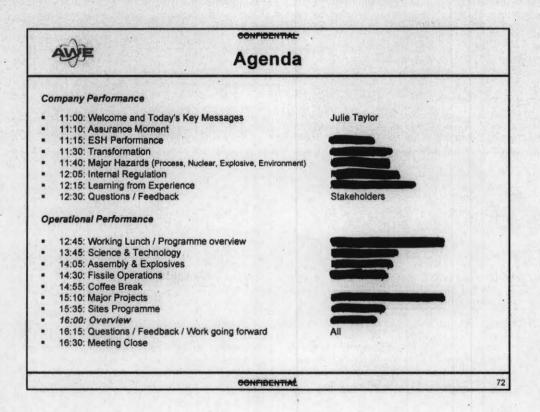
Forward Focus Safety

- Develop nuclear and environmental baselines and configuration control
- Improve capability competency/training & align demands with service provision
- SIA on safety basis process to ensure increase safety benefit and value
- SILW programme
- Corporate PRS programme
- Change to the methodology for demonstration of emergency arrangements at AWE(B), then AWE(A)
- Site Control Control Room Strategy
- Control of releases under LC34
- Implementation of new dosimetry reporting system (DRAWE)
- Commencement of Safety Case update
- Continued reduction in LC32 holdings (Temporary accumulated waste)
- Continuing with Nuclear Fire Risk Assessment Trial facility

CONFIDENTIAL







Overview - Key Lessons Learnt

- CY13 saw
 - Some improvement in ESH performance in some key areas has
 - Continued hazard reduction through decommissioning programme and re-kit projects and steady progress against the capital improvements programme (new build)
 - Some key industry leading approaches being taken with respect to culture and worker engagement
- CY13 has been a challenging year for the Company:
 - Despite improvement ESH performance

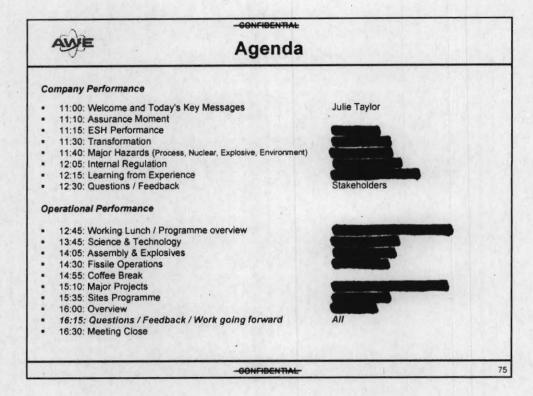
 - Stakeholder Communications

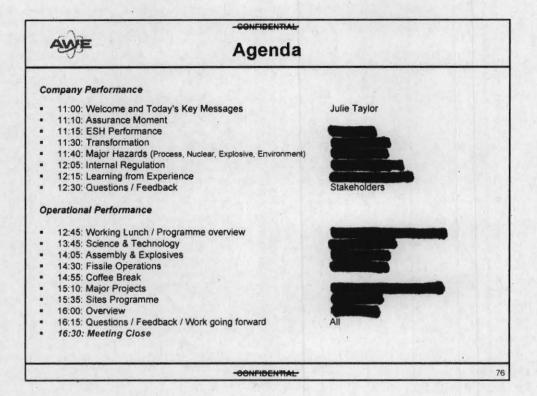
OONFIDENTIAL

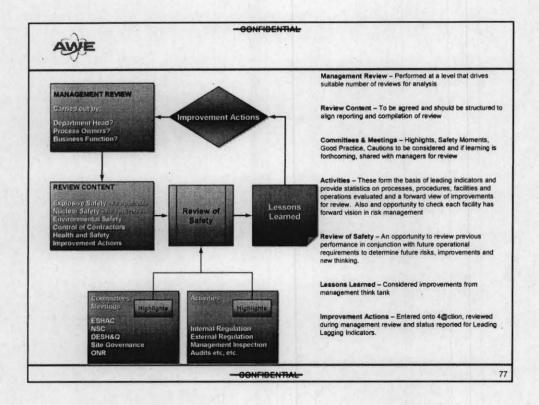
Overview - AWE looking forward

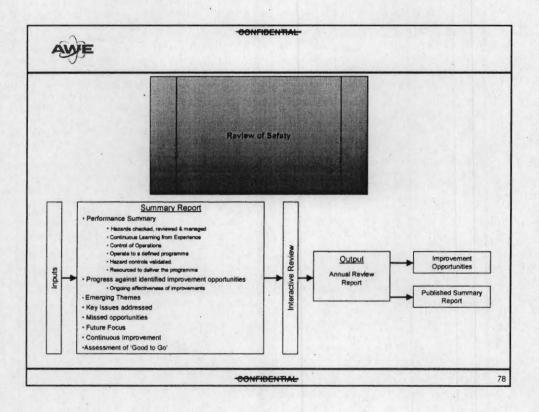
- Key operational issues to be finalised
- PRS activities
- Capital build and transition to new facilities
- Asset integrity and maintenance regimes
- Mk4a assessment
- Further develop functions
- Quality & OEL
- Regulatory relationships and environmental focus

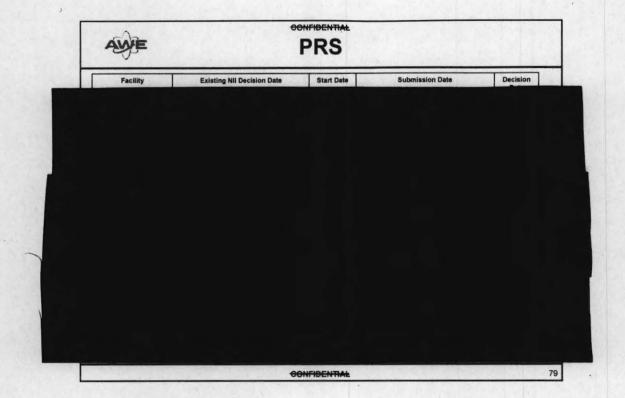
-CONFIDENTIAL

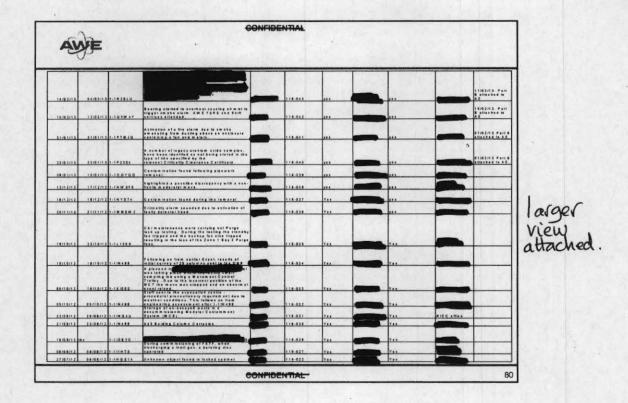














14/02/13	04/03/13	1-1R2BLU		116-043	yes		yes		11/03/13. Par B attached to AE
10/02/13	12/02/13	1-1Q 5W 4Y	Bearing started to overheat causing oil m ist to trigger smoke alarm. AWE F&RS and Shift services attended.	116-042	yes		yes		15/02/13 Par B attached to AE
31/01/13	31/01/13	1-1PTMJQ	Activation of a fire alarm due to smoke emanating from ducting above an enclosure containing a fan and motors.	116-041	yes		yes		07/02/13 Par attached to A
23/01/13	23/01/13	1-1 P 2 5 0 4	A number of legacy uranium oxide samples, have been identified as not being stored in the type of tins specified by the relevant Criticality Clearance Certificate.	116-040	yes		yes		01/02/13 Par attached to A
08/01/13	10/01/13	1-10 Q Y Q Q	Contamination found following pipework removal:	116-039	yes		yes		
12/12/12	17/12/12	1-1 N W 0 F 6	highlighted a possilbe discrepancy with a non- fissile moderator move	116-038	yes		yes		
18/12/12	18/12/12	1-1NYD74	Contamination found during line removal	116-037	Yes		yes		
20/11/12	21/11/12	1-1 M M 8 W 2	Criticality alarm sounded due to activation of faulty detector head.	116-036	Yes		yes		
-			C&I maintenance were carrying out Purge lock up testing. During the testing the standby fan tripped and the backup fan also tripped resulting in the loss of the Zone 1 Bay 2 Purge						
19/10/12	23/10/12	1-1L10X6	fans.	116-035	Yes		Yes		
10/10/12	19/10/12	1-1 IN 488	Following on from earlier Event, results of initial survey of 25 columns sent to the ONR	116-034	Yes		Yes		
			A planned move of was taking place within the facility swarf sampling lab using a Movement Control Trolley. Due to the incorrect position of the MCT the move was stopped and an abnormal						
05/10/12	18/10/12	1-1KI0S0	event raised. Staff sent to the evacuation centre - procedural precautionary requirement due to	116-033	Yes	-	Yes		
05/10/12	05/10/12	1-1 IN 4 8 8	weather conditions. This follows on from engineering assessment after 1-1 IN 488. Storage of un-assayed waste in a	116-032	Yes	-	Yes		
22/08/12	28/08/12	1-1 IN Q 4 U	decommissioning Modular Containment System (MCS).	116-031	Yes		Yes	RICC office	
21/08/12	23/08/12	1-1IN 488	A 45 Building Column Corrosion	116-030	Yes		Yes		
16/08/12	tbc	1-1 D E Y C	During commissioning of FSTF, when	116-029	Yes	-	Yes		
08/08/12	09/08/12	1-111HT6	discharging a inert gas, a bursting disc operated	116-027	Yes		Yes		8488
27/07/12	06/08/12	1-1HG S 14	Unknown object found in locked cabinet	116-022	Yes		Yes		

Annex B

POST - IT CAPTURE SHEET

POST IT NOTE CAPTURE SHEET

ANNEX B

Impact of AWE resource needs impacting on ONR approval periods. Eg Safety Case authors	Annual Review of Safety Timing in Feb/Mar Link in with AWE management review	Importance of accurate and up to date Hold Point Control Plan	IR Improvements required on right first time document submissions	(HID) More regulator response provided in the meeting/session if provided with earlier copy of report	(ONR) AWE's view of compliance missing: LCs ACs Legislation	
Quality of documentation & evidence submission	Reluctance to raise incidence reports Education of AE process and reporting	Early engagement with regulator	IR Credit for risk reduction programmes. Eg capital build and decommissioning. Cultural change to programmes takes time to embed:	(DNSR) Good session but would benefit from earlier issue of report	More measurable/quantifiable SS to suggest org for AWE review (ONR) How does AWE respond to Internal Regulator challenge	
Impact of AWE programme changes on regulator resource availability. Eg Early communications Hold Point Control Plans	Keep engagement open & honest. Show where this is bringing improvements	Permissioning Strategy	golden rules good idea IR Good response on incidents	(ONR) Site ability to identify issues ONR could learn		
Joint opportunities Develop links with Internal Regulator	Be wary of scope creep Facility taking on wider remit	(ONR) How do we keep focussed on key issues Early issue of report	Safety Improvement Programme needs to be more effective. Eg criticality programme (ONR) Messages aligned as minimal	(EA) AROE very specific Opportunity for reg feedback	Julie Taylor Busy programme Proud of achievements	
Clarity & improvement of communication of respective risks &	Explore grouping of Cat A modifications in an area to reduce workload	IR Common Goals/Common understanding between AWE and regulators IR Regrets accurate Good behaviours of senior	comment from regulator (ONR)	Maintain balanced view Look ahead - how it reflects on overall picture	Are we doing the right things JT is customer Build confidence Own reflection Consistent across org (eg Golden Rules) (EA) Early engagement	
issues ONR to and from AWE	Overall plan of revised submission dates for regulators		Importance of regulator understanding programme Align AWE/MOD/Regulator to challenges	Good to have internal Regulator present - build relationship		
No surprises Keep Informed		management on safety leadership	(ONR) Report/slides to align as much as possible (Given FOI)		Quality of submissions Intelligent Operator	

Annex C

CURRENT ACTION LIST

Action Reference	Action	Owner
CY/14/01	The regulatory community had asked that in future the Annual Safety Report be promulgated in advance of the formal meeting to allow time to review and digest the data.	Head of OEL
CY/14/02	AWE to supply the regulatory community with a consolidated list of major projects submission documents together with the planned submission dates.	