



# Environment, Safety & Health Quarterly Performance Report



Reporting period: 1 January to 30 March 2016

Welcome to AWE's first quarterly performance report for 2016. This document is designed to inform you – the local and wider public – of our management of the environment, safety and health at our sites in Aldermaston and Burghfield. The safety of our employees, our community and the protection of our environment is and will always be our highest priority.

## News this quarter

Reporting on our sustainability performance has long formed part of our approach to remaining a successful and relevant business in the future, with the first AWE Sustainability Plan being published in 2007. The latest version, AWE Sustainability Review 2013-2015, shows great progress against the 14 sustainability themes and 60 targets. However, we recognise there is a need to review and refresh our plan, therefore building on our existing programmes we will be expanding our sustainability plan to a broader Corporate Responsibility (CR) strategy.

“Acting and working responsibly is embedded in everything we do and we are working hard to ensure we continue to develop our reputation for doing the right thing for our customers, our people, our communities and our suppliers,” said Julie Lane, AWE Corporate Responsibility Manager. She added, “We are continually looking to improve our performance, and over the coming months we will be developing our current sustainability plan into a more comprehensive CR approach – which is reflective of the material issues for our organisation and ensuring that our stakeholder concerns are also being addressed.”

At AWE, working responsibly is part of everything we do. We are committed to maintaining a safe and secure business by developing strong relationships, treating our employees fairly and respecting the communities and environment in which we operate.



**Julie Lane**  
AWE Corporate  
Responsibility  
Manager

# Public dose data

AWE monitors discharges of radioactive material from its sites and assesses the impact these could have on the local environment and the public.

The table below shows the rolling annual dose to members of the public from Aldermaston and Burghfield discharges. The calculated doses represent minute fractions of the dose constraint set by the Environment Agency of 500 µSv per year for a nuclear site. The assessment concludes that there is no hazard to the public.

Public Dose Assessment					
Discharge	Aldermaston		Burghfield		Guidance Levels
	Q1 2016	April 2015 to Mar 2016	Q1 2016	April 2015 to Mar 2016	
Atmosphere	0.03 µSv	0.12 µSv	Less than 0.0001 µSv	Less than 0.0001 µSv	500 µSv
Trade Effluent	0.003 µSv	0.010 µSv	N/A	N/A	500 µSv
Aldermaston Stream	0.0001 µSv	0.0003 µSv	N/A	N/A	500 µSv

Refer to list of definitions of units of measurement at the end of this report.

Putting doses into context	Dose in microsieverts
135g bag of Brazil nuts if eaten	5 µSv
Chest x-ray	20 µSv
Transatlantic flight	70 µSv
CT scan of the head	1400 µSv
UK average annual radiation dose	2700 µSv
AWE Key Performance Indicator for Maximum Individual Dose	4000 µSv
CT scan of the chest	6600 µSv
Average annual radon dose living in Cornwall	7800 µSv
AWE Company Annual Dose Limit	10000 µSv
Whole body CT scan	10000 µSv
UK Annual Dose Limit for Nuclear Workers	20000 µSv

# How we report incidents on our sites

It is important that we know when things do not go to plan so that we can investigate and put things right. Anyone working on AWE sites or carrying out company business off site are required to capture incidents on a dedicated reporting system. These incidents are referred to as 'Abnormal Events.'

We believe that lessons can be learnt from even the most minor incidents and those lessons can help prevent more occurrences from happening in the future. With this in mind, we also have a system called Assurance Observation Reports which allow people to engage and capture conversations around safety on a daily basis.

# How we report on our industrial safety performance

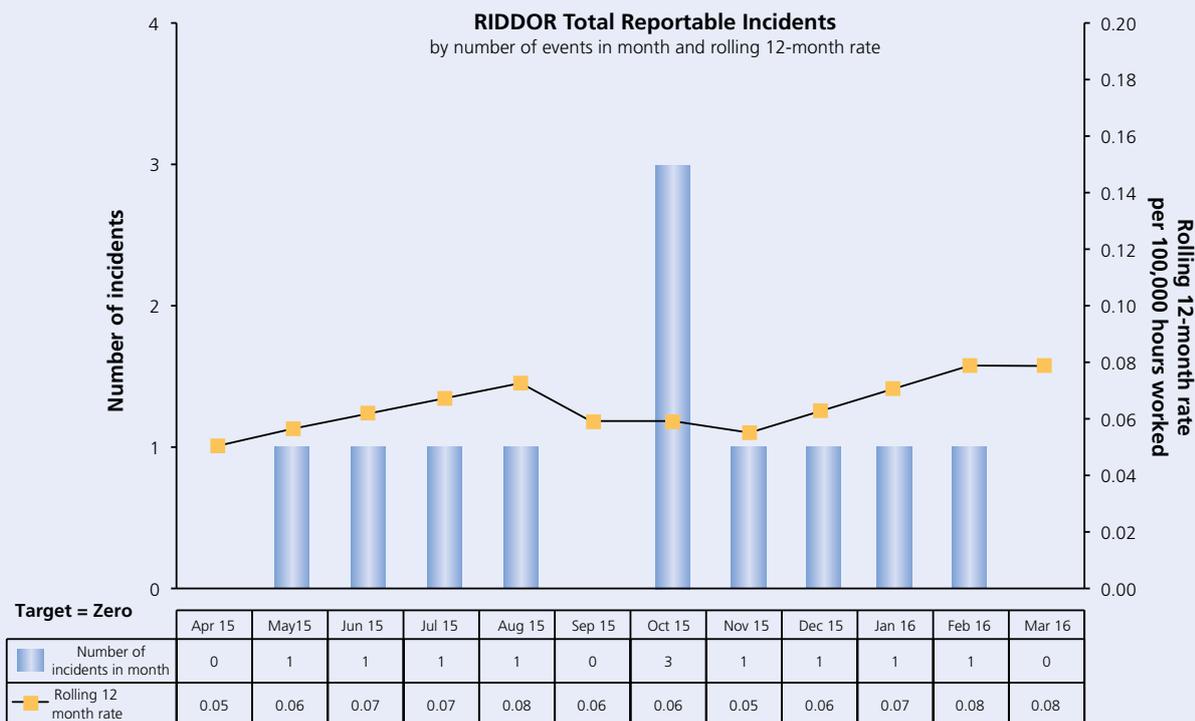
Certain Abnormal Events are automatically reported to the Health and Safety Executive (HSE) under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR).

RIDDOR is the statutory legislation that requires employers, and other people who are in control of work premises, to keep records of certain Abnormal Events.

The table under shows the breakdown of RIDDOR reportable events that have occurred on AWE sites during this quarter. The number of RIDDOR events reported during the preceding 12-month period appears in the chart below.

<b>January 2016</b>
MDP officer sustained puncture wounds when a dog bit their hand. Reportable as an absence greater than seven days
<b>February 2016</b>
A housekeeper tripped over their vacuum cleaner and fell to the ground sustaining a broken hip. Reportable by their employer as a Major Injury
<b>March 2016</b>
No reportable events occurred

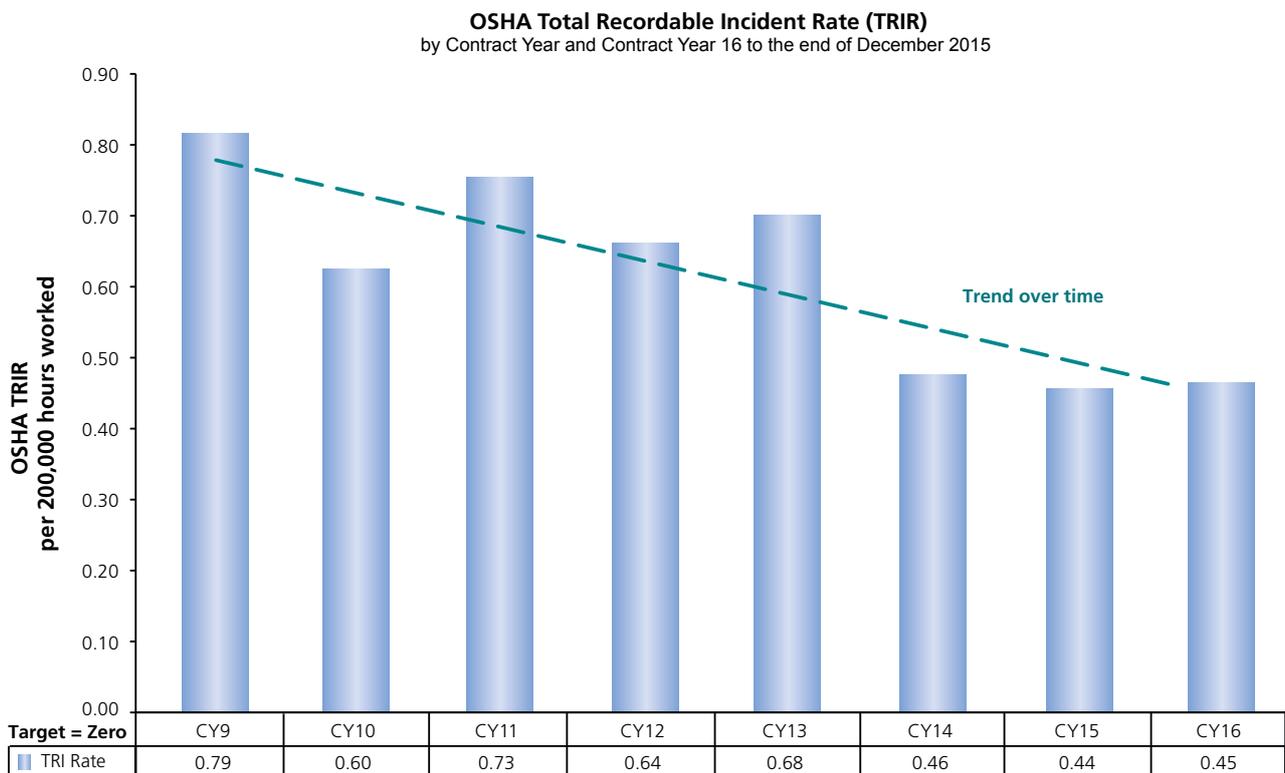
These events have been fully investigated and actions taken to help prevent recurrence.



# How we drive improvement in our performance

AWE is committed to a continuous programme of improvement, and as part of further learning we also use the United States Occupational Safety and Health Administration (OSHA) system when applying a classification code to injury and illness related Abnormal Events.

The chart below shows AWE’s performance for all OSHA recordable events by Contract Year.



# How we report on our nuclear safety performance

In addition to reporting events to the HSE under the RIDDOR regulations, as a nuclear licensed site, AWE has also set criteria for which incidents must be reported to its nuclear regulator, the Office for Nuclear Regulation (ONR). Events reported to the ONR during the current reporting period are listed in the table on page 5. Where applicable, an indication of the International Nuclear and Radiological Events Scale (INES) rating, given to the event, is also listed.

The INES scale is used by nuclear operators to give a common international standard for comparison of nuclear events; these events are rated on a scale of one to seven. Those coded as ‘zero’ are deemed below the scale and to have had no safety significance. Those coded ‘TBC’ are subject to findings of ongoing investigations.

<b>ABNORMAL EVENT</b> All events occurred at AWE Aldermaston unless specified otherwise	<b>Initial/ Provisional INES Rating</b>	<b>Final INES Rating</b>
<b>January 2016</b>		
During calibration testing, pressure instruments were found to have drifted and required adjustment to bring them back into tolerance	0	0
<b>February 2016</b>		
Issue identified with inventory data	1	0
<b>March 2016</b>		
Issue identified with a power supply to laboratory equipment	0	TBC
During a site visit an issue was identified with some concrete slabs	0	TBC

## Protecting our environment

In order for AWE to operate our sites and perform our role in national defence, we are required to hold a number of permits, authorisations, registrations, licences and consents. We have to apply to the appropriate regulators in order to be granted these permits, authorisations, registrations, licences and consents (jointly termed permits).

### Environmental events notified to the Environment Agency

All events occurred at AWE Aldermaston unless specified otherwise.

<b>January 2016</b>
No events notified to the Environmental Agencies (EAs). AWE did however provide the EA the Abnormal Event Report covering the investigation and source of the elevated tritium levels recorded on passive samplers at the site boundary that was the reason for several previous notifications. Investigations identified the source as off-gassing of a tritium containing material used in a research laboratory. The source was removed via an approved disposal route in October 2015. Once the source had been removed, readings showed that tritium levels had reduced significantly below notification levels. AWE recognised the need for improvements and produced a Forward Action Plan that sets out the actions required to address the issues identified within the investigations. AWE is awaiting the EA's response to the Abnormal Event Report.

<b>February 2016</b>
AWE informed the Northern Ireland Environment Agency (NIEA) in relation to a change of Competent Person to cover the requirement to notify annually

<b>March 2016</b>
An elevated plutonium result (105 (+/- 38) nBq/m <sup>3</sup> ) for a High Volume Air Sampler (HVAS) taken between 3 March to 17 March 2016 was recorded from a location within the AWE Aldermaston site. The first laboratory result exceeded the notification level of 100 nBq/m <sup>3</sup> and the EA were therefore notified of the situation. The confirmatory test performed on the remainder of the sample returned a result of 76 (+/- 38) nBq/m <sup>3</sup> , which was below the level requiring notification. The sampler stands close to an area of ground with legacy contamination. It has been established that there were necessary maintenance activities undertaken close to the HVAS during this period that are likely to have led to the resuspension of legacy contamination, and hence be the cause of the elevated result. Due to the recognised issues with this sampler, an alternative has been installed at an alternative location, and the switch over scheduled for 14 April 2016. The EA approved this change. AWE informed the NIEA in relation to a change of Competent Person to cover the requirement to notify annually.

## March 2016 Continued

One of the facilities at AWE that is covered by an environmental permit for an industrial process had an incident that involved a leak of chlorine gas from a pipeline connected to a gas cylinder. The EA were notified. AWE carried out some additional assessment work once the situation had been resolved and as a result, identified that discharge from the facility was not significant. The EA accepted our assessment and did not require any further information.

## Waste minimisation

As part of AWE's commitment to protecting the environment, we have a long-term vision to become a zero-controlled waste-to-landfill organisation, details of which are given in AWE's Annual Review of Sustainability 2011-12 (available on AWE's website). To that end, there is a drive towards minimising waste and avoiding landfill wherever possible. AWE monitors diversion from landfill, for which a target of 80% has been set for Controlled, and Construction and Demolition waste.

### Controlled Waste

Normal operational waste but excluding radioactive (RA), Explosive, and Construction and Demolition

### Construction and Demolition Waste

Commonly rubble and soil but excludes Controlled, RA and Explosive waste

### Reused

An item to be reused on site, or resold to be reused in its original condition

### Recycled

An item that can be broken down and made into something else

### Recovered

Where waste is burnt and energy recovered, or waste is used in land remediation

### Disposed

Where waste is not reused, recycled or recovered

Below are the performance statistics for this quarter.

	Diverted from Landfill			% Total diverted from landfill	% Disposed
	% Reused	% Recycled	% Recovered		
Controlled	3.6%	34.3%	25.6%	63.5%	36.5%
Construction	65.3%	33.6%	0	98.9%	1.1%

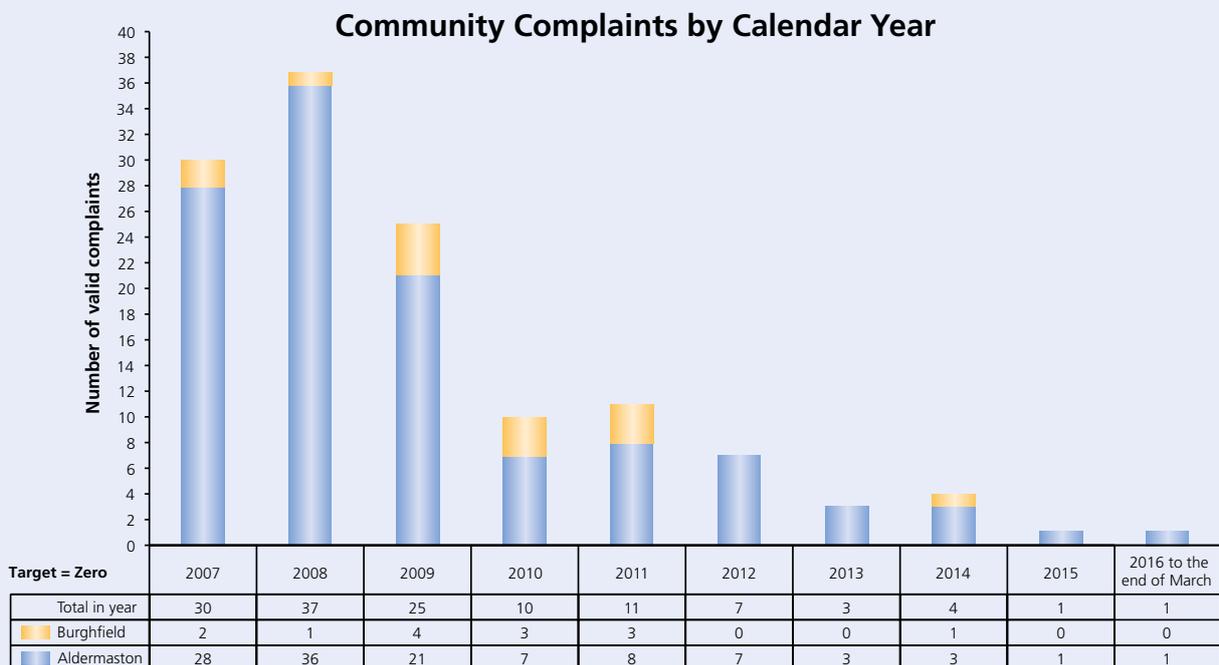
# Community concerns

At AWE, we believe in being a good neighbour. It is important to us that people living near our sites have the utmost trust in our organisation.

AWE's process for handling community concerns requires us to respond to them effectively and appropriately on a 24/7 basis. Any concerns raised broadly fall into six main categories: noise, traffic, light, water, pollution and other. A community concern is initially assessed in terms of criteria such as severity, safety implication, complexity, impact, and the need and possibility of immediate action. This includes an assessment to determine whether the concern is a complaint and whether it is associated with AWE operations or not. A community complaint is defined as an expression of dissatisfaction with AWE, however expressed, whether justified or not.

We are proud of the strong relationships we continue to build with the community, and are currently supporting a number of local projects including the Tadley First Responders, and Basingstoke's Shop-mobility. The majority of our circa 6,000 staff and contractors, who are themselves part of the local community, live within a 10-mile radius of AWE.

In February 2016, a complaint was received from a local resident regarding intermittent vibration from the ground which they believed originated from the AWE site.



For more information, contact: [enquiries@awe.co.uk](mailto:enquiries@awe.co.uk)

## List of acronyms and definitions of scientific terms:

AWE:	Atomic Weapons Establishment
Sievert:	A measure of radiation dose received by a person
millisievert (mSv):	One thousandth of a Sievert
microsievert ( $\mu$ Sv):	One millionth of a Sievert
CY16 (Contract Year 16):	The period from 1 April 2015 to 31 March 2016



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