



Environment, Safety & Health Quarterly Performance Report



Reporting period: 1 April to 30 June 2015

Welcome to AWE's second quarterly performance report for 2015. 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. Whether in support of nuclear processes or operations, or those things we do as part of our everyday working lives, the environment, safety and health underpins all our activities. The safety of our employees, our community and the protection of our environment is and will always be our highest priority.

News this quarter

AWE continues to deliver its commitment to reducing waste and promoting reuse and recycling over landfill disposal. Approximately 95% of all waste generated by AWE is construction and demolition waste. Typically over 90% of this waste is reused or recycled, exceeding the target of 80% waste diversion from landfill and moving towards the ultimate goal of zero waste to landfill.

AWE Head of Environment, Peter Caddock, said: "A number of recent projects have successfully combined to reuse both waste concrete and subsoil. This has included over 2,000 tonnes of waste concrete crushed and reused on site, and over 3,000 tonnes of subsoil. The result is that we are much more sustainable and we are making effective and efficient use of all resources."

Further benefits of this approach are a reduction in the volume of material sent off site for recycling and a reduction in the amount of vehicle movements to and from site. This is leading to reduced emissions and a smaller carbon footprint.

In addition to the positive impact on the environment, there have also been considerable cost savings to these projects.

Congratulations to Emcor, one of AWE's main suppliers, for winning the Royal Society for the Prevention of Accidents (RoSPA) Award, in recognition of Emcor's environment, safety and health performance across our sites.



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
	Q2 2015	Jul 2014 to Jun 2015	Q2 2015	Jul 2014 to Jun 2015	
Atmosphere	0.03 µSv	0.10 µSv	Less than 0.0001 µSv	Less than 0.0001 µSv	500 µSv
Trade Effluent	0.002 µSv	0.012 µSv			500 µSv
Aldermaston Stream	0.0001 µSv	0.0004 µSv			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 make a report, through recording on the AWE reporting system. These incidents are referred to as 'Abnormal Events.'

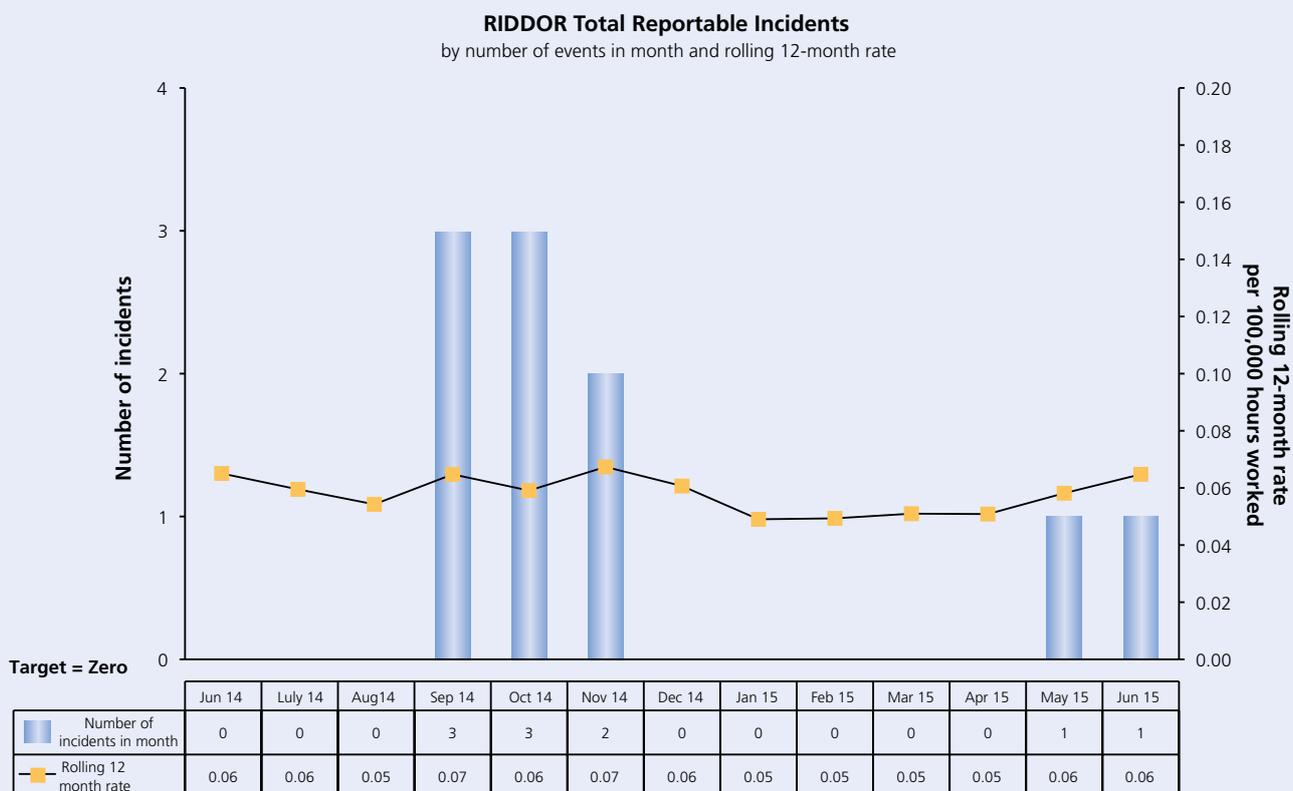
We believe that lessons can be learnt from even the most minor incidents and those lessons can help prevent more occurrences from happening in the future. With this in mind, we also have a system called Assurance Observation Reports which allow people to engage and capture conversations around safety 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. No RIDDOR reportable events have occurred during this quarter.

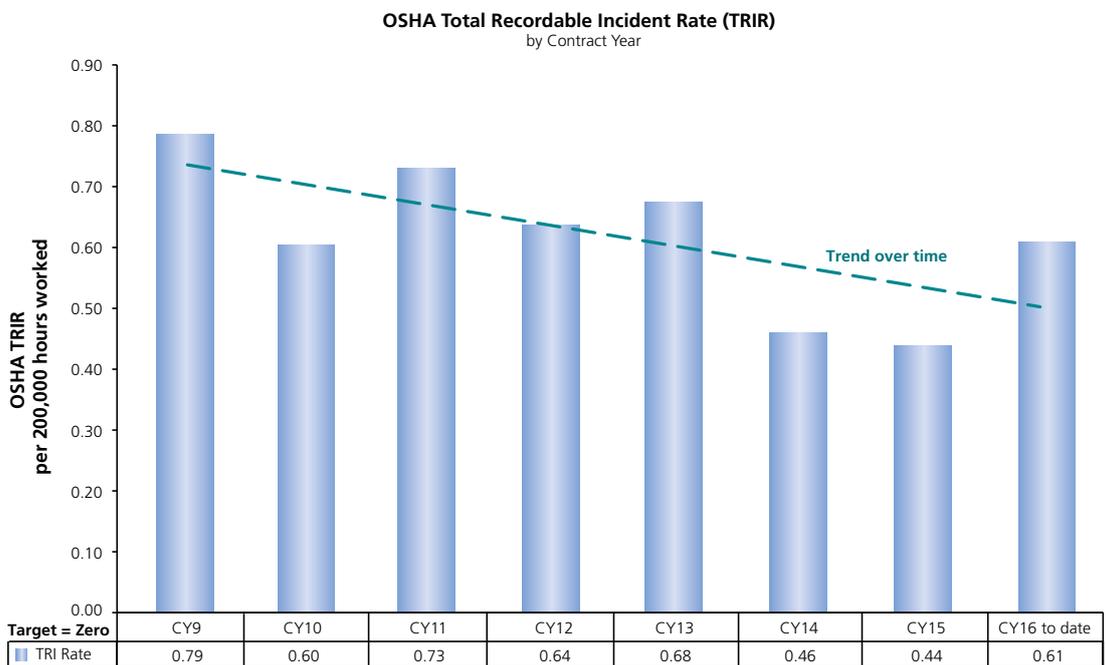
The number of RIDDOR events reported during the preceding 12-month period appears in the chart below.



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. Those coded ‘N/A’ relate to events that fall outside the INES rating criteria.

ABNORMAL EVENT All events occurred at AWE Aldermaston unless specified otherwise	Initial/ Provisional INES Rating	Final INES Rating
April 2015		
No reportable events	-	-
May 2015		
Decommissioning process was identified as non-compliant with requirements	0	1
Following review, further assessment of the contents of a coolant tank is to be undertaken	TBC	TBC
June 2015		
Glove in the glovebox found to be damaged. Monitoring was undertaken and full access restored	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.

April 2015
<p>An elevated reading of 233 nBq/m³ for plutonium was recorded from a High Volume Air Sampler (HVAS) located at AWE Aldermaston (a becquerel (Bq) is a measure of radioactivity). The elevated reading is the result of low levels of legacy waste during demolition activities. The sample taken exceeded the notification level of 100 nBq/m³. It should be noted that whilst the level required us to investigate the event and notify the Environment Agency (EA) and the MOD, the estimated dose was very small and not at a level that would pose any harm to the public or the environment.</p> <p>We notified the EA that one of the milk farms listed within our environmental monitoring arrangements had ceased to operate as a dairy farm with effect from 10 April 2015. As a result, AWE would be unable to fulfil the requirement to collect this milk sample in April 2015 and would no longer be able to obtain a sample from this location. The EA were content for AWE to sample from other farms within the vicinity of Aldermaston and not find a substitute farm.</p>
May 2015
<p>We notified the EA of our intention to increase the sampling frequency for specified air samplers from monthly to fortnightly to help with an investigation into elevated levels of tritium. The investigation into the cause is ongoing, but the increase is not at a level that would pose any harm to the public or the environment. The notification was required as the samplers are identified within our environmental monitoring arrangements and any changes require notification. The increased sampling frequency was approved by the EA on a temporary basis for three months with effect from 28 May 2015.</p>
June 2015
<p>An elevated reading of 241 nBq/m³ for plutonium was recorded from a HVAS located at AWE Aldermaston. The elevated reading is the result of low levels of legacy ground contamination. The sample taken exceeded the notification level of 100 nBq/m³. It should be noted that whilst the level required us to investigate the event and notify the EA and the MOD, the estimated dose was very small and not at a level that would pose any harm to the public or the environment.</p>

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

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	10.4%	54.9%	22.9%	88.2%	11.8%
Construction	11.3%	77.4%	10.6%	99.3%	0.7%

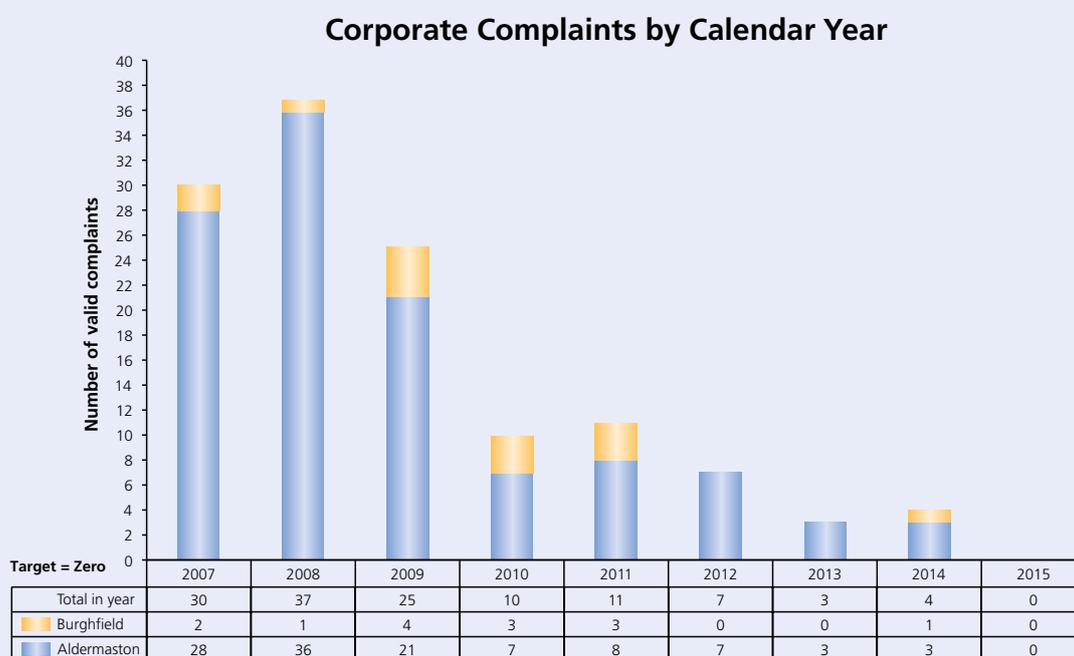
The target is to divert 80% of waste away from landfill.

Listening to the community

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.

Corporate Complaints Year-Trend Analysis

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 6,000 staff and contractors, who are themselves part of the local community, live within a 10-mile radius of AWE.



For more information, contact: 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 (μ Sv):	One millionth of a Sievert
CY16 (Contract Year 16):	The period from 1 April 2015 to 31 March 2016



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