



Environment, Safety & Health Quarterly Performance Report



Reporting period: 1 October to 31 December 2016

Welcome to AWE's fourth 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.

Thames Valley Business Magazine Awards

AWE has been recognised for environmental performance at two separate awards events.

AWE beat stiff competition at the annual Thames Valley Business Magazine awards, to be recognised in the Green Progress Awards category. And earlier, the environment team received the Best Sustainability project runner-up prize at the MOD Sanctuary awards. The Sanctuary magazine is the MOD's premier annual publication detailing the diverse environmental activities carried across the defence estate.

Both awards reflect the significant construction and waste management work in which AWE has been involved. We diverted 99% of our waste from landfill, and received an unparalleled fourth consecutive Considerate Constructors Scheme Gold award. These are just a couple of the achievements that our environment projects teams have supported, and that were recognised by the judging panels as demonstrating excellent environmental practice.

AWE Head of Environment, Peter Caddock, said: "These awards are well-deserved recognition for the high level of environmental performance delivered by our projects teams. Looking to the year ahead, our ambition is to deliver environmental best practice across the company through innovative sustainable solutions linked to the business strategy."



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 |
| | Q4 2016 | Oct 2015 to Sept 2016 | Q3 2016 | Oct 2015 to Sept 2016 | |
| Atmosphere | 0.04 µSv | 0.14 µSv | Less than 0.0001 µSv | Less than 0.0001 µSv | 500 µSv |
| Trade Effluent | 0.004 µSv | 0.013 µSv | N/A | N/A | 500 µSv |
| Aldermaston Stream | Less Than 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

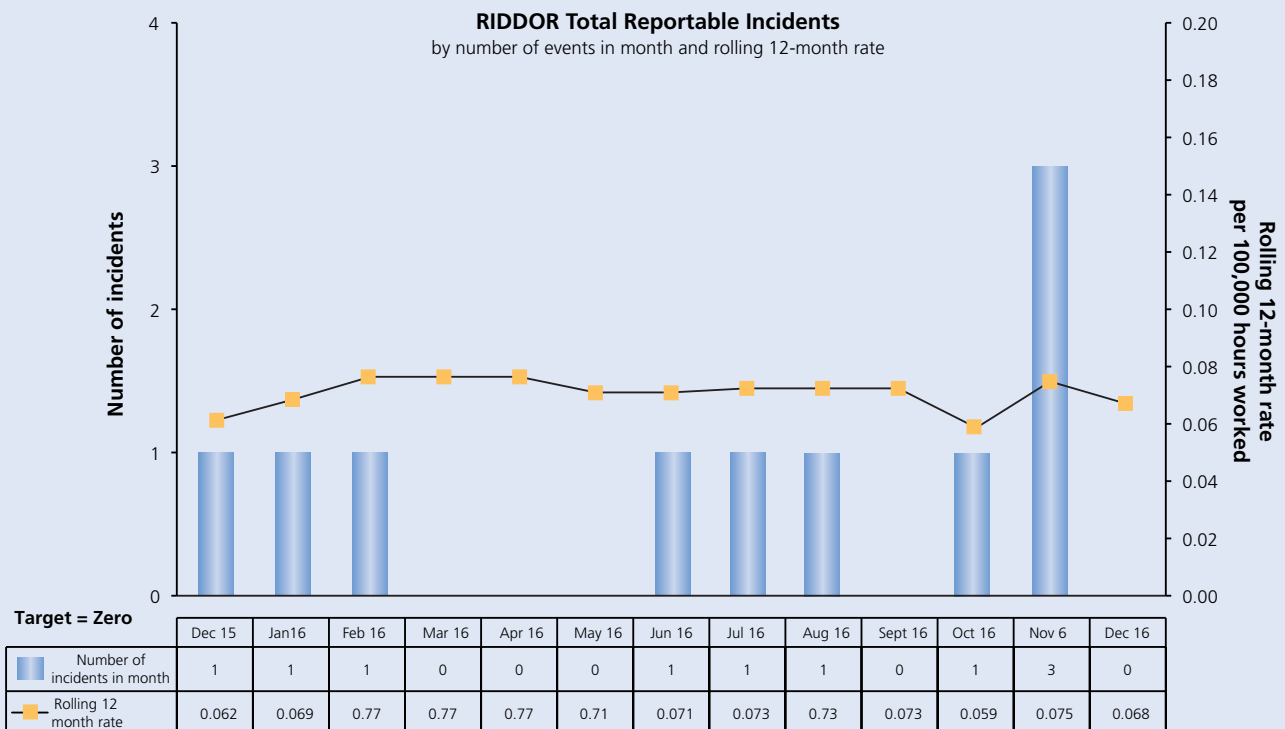
Certain Abnormal Events are automatically reported to the Health and Safety Executive (HSE) under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR).

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.

| |
|---|
| October 2016 |
| A member of staff exiting a building twisted their ankle when they stepped onto an inspection cover that had been covered by a mat. |
| November 2016 |
| An operative tripped over a flexible air ducting injuring their ankle. Member of staff slipped on a patch of mud injuring their knee. Member of staff fell in a car park sustaining a twisted ankle and cuts. |
| December 2016 |
| No reportable events occurred. |

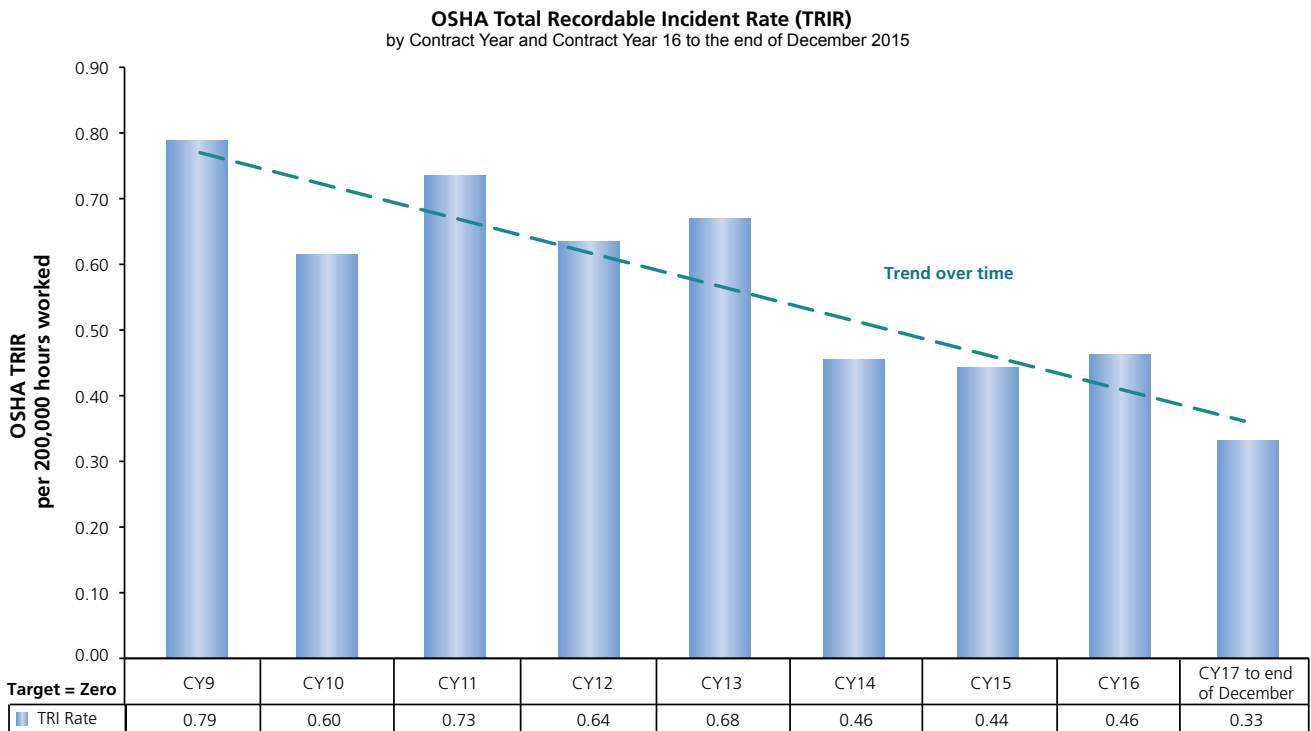
These events have been fully investigated and actions taken to help prevent recurrence.



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 occurring since 1 April 2008.



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 |
|---|---|------------------------------|
| October 2016 | | |
| Pressure relief valve operated outside the prescribed settings during pre-start checks. | 0 | TBC |
| Inconsistency identified in the wording of a Safety Case. | 0 | 0 |
| A discrepancy was identified concerning low activity waste during a routine review. | 0 | 0 |
| Appointment withdrawn pending the outcome of an investigation. | 0 | TBC |
| Failure of a fault monitoring display concerning an immediate evacuation system during maintenance testing. | 0 | TBC |
| Electrical fire in an office block wall void. The fire had self-extinguished prior to the arrival of the Fire Service. | N/A | N/A |
| Temporary placement of surplus construction material was identified as having the potential to influence surface water run-off. | 0 | 0 |
| November 2016 | | |
| Status of site emergency plans during industrial action. | 0 | TBC |
| A log book relating to the contents of containers was identified as having incorrect information. | 0 | 0 |
| December 2016 | | |
| Status of site emergency plans during industrial action. | 0 | TBC |
| During routine maintenance of a public address system, a checkpoint failure was observed. | 1 | 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.

| |
|--|
| October 2016 |
| No events notified to the Environment Agency |
| November 2016 |
| No events notified to the Environment Agency |
| December 2016 |
| No events notified to the Environment Agency |

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 the AWE Sustainability Review 2013-15 (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 | 32.8% | 31.7% | 24.3% | 88.8% | 11.2% |
| Construction | 0% | 93.6% | 5.7% | 99.3% | 0.7% |

Community concerns

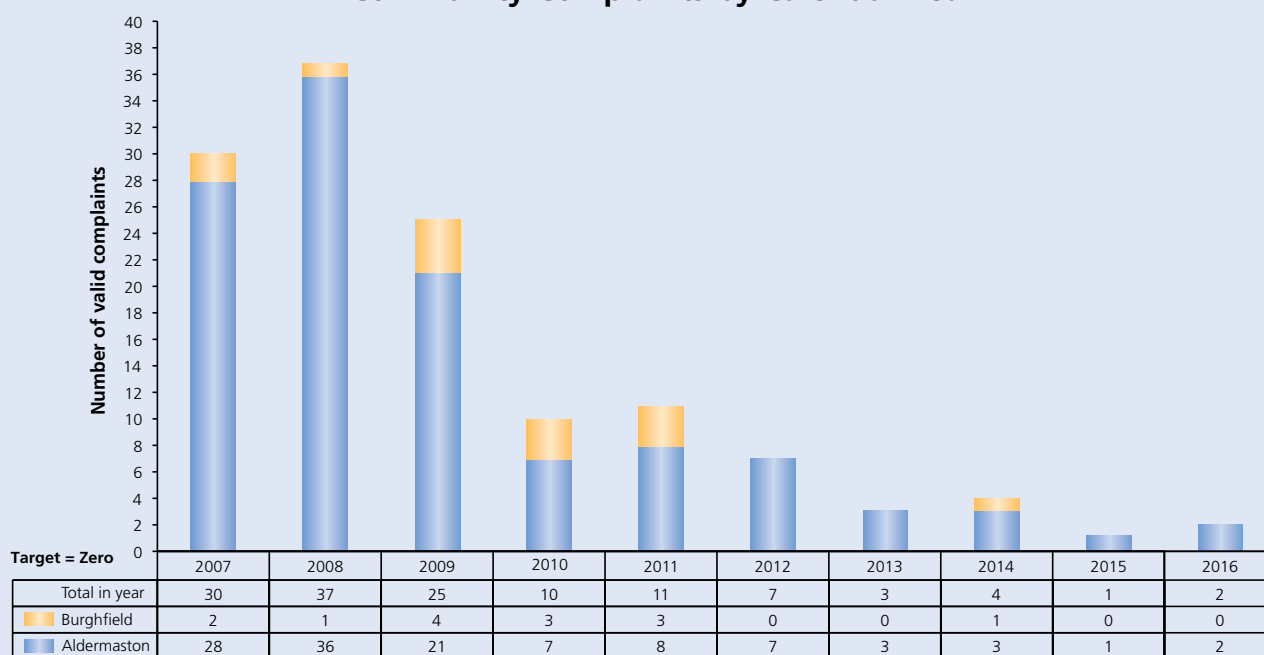
At AWE, we believe in being a good neighbour. It is important to us that people living near our sites have the utmost trust in our organisation.

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.

No corporate complaints were received in the reporting period.

Community Complaints by Calendar Year



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 (µSv): | One millionth of a Sievert |
| CY: | Contract Year; the period from 1 April to 31 March |
| FY: | Fiscal Year 17; the period from 1 April 2016 to 31 March 2017 |



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