

Compliance Assessment Report CAR_NRW0041250

Permit being assessed: DP3732SQ.

For: Bryn Pica Landfill EPR/DP3732SQ, held by Cynon Valley Waste Disposal Company Ltd
At: Bryn Pica Landfill Site , Llwydcoed, Aberdare, Rhondda-Cynon-Taff, CF44 0BX.

Type of assessment carried out: Site Inspection, Reason: Routine.

On 31/12/2022 between 09:00 and 17:00.

Parts of permit assessed: Activities

NRW Lead Officer: Mostyn Wall.

Report sent to: Lee Foulkes, Technical Manager on 17/02/2023.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
B1 - Infrastructure - Engineering for prevention and control of emissions	C3 Minor	1.1.1

Result types are explained in more detail in the 'Important Information' section below.

Total number of non-compliances recorded	Total non-compliance score
1	4

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
B1	Site to contact the fire service to arrange a visits and discuss emergency response to a fire.	30/04/2023

Action criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Pipework Electrofusion Fire 6/10/2022

On the 6/10/22 NRW was alerted by Lee Foulkes of a fire incident from a fusion coupling at

Bryn Pica Landfill. A schedule notification part A was sent into NRW on the 7/10/2022 and the part B was sent on the 8/10/2022.

The part B details the events that led to the fire.

“A contractor to Amgen Cymru was undertaking an action to fusion weld 2 lengths of PE pipe together. The contractor (Infinis) reports that the pipe was 225mm diameter and contained some form of perforation. The pipe was not part of the active gas management system. It was being prepared for future use as a temporary horizontal ‘scavenger line’.

The location of the incident was on an historic part of the capped landfill. Over 500m from the active landfill tipping area.

Infinis representatives reports that one of the welds failed to complete the required heating period (failing at 450s compared to required weld time of 600s). It is reported that the contractor’s operative abandoned the failed weld to undertaken other work (around 30 minutes). In is also reported that the operative monitored the failed weld for a further 20 minutes. He reports there was no indication of fire.

Amgen Technical Manager (Lee Foulkes) discovered the fire at 17:30 and called the Fire Rescue Service (FRS). The FRS arrived approximately 18:00. Following an initial period of information gathering regarding the situation the FRS extinguished the fire using waste from their Fire Rescue Vehicle. The fire was extinguished in a short period. The FRS left the site at approximately 18:30.

A representative of Infinis attended the incident and removed the effected pipe[1]work to a safe location. They remained at the site for a further 20 minutes to monitor.

Amgen officers have inspected the landfill cap in the area of the fire. They have assessed no prospect of damage to the capping system due to the presence of 1m thick cover soils.

The part B outlined some of the initial actions taken to prevent a recurrence of the incident.

A key aspect of the incident is the failure of the person undertaking the fusion weld to assess the residual risk of fire following failure of a fusion joint. To address this Amgen Cymru will request any contractors undertaking fusion or butt welding to include within their method statement a specific requirement for failed wells to be removed immediately (following sufficient cooling to allow safe removal). This will ensure that persons make a thorough assessment of whether any internal combustion remains within the failed weld.

Previously Amgen Cymru has not considered fusion welding of pipe-work to be a Permit to Work (Hot Works) activity. This is due to the absence of a naked flame.

It is not clear whether the provision of a permit in this instance would have prevented the outcome, given the permit system in its current form. This could be improved with a specific question relating to fusion welding activity as follows:

*In case of fusion and or butt welding of PE pipe did any weld fail specified weld time? (Y/N)
Have all failed welds been removed from the pipe-work and relocated to a quarantine area? (Y/N)*

This will reduce the risk of recurrence.

On the 25/10/2022 NRW met at the site with Lee Foulkes and George Augood from Infinis to discuss the fire and to survey the burnt pipe. New perforated pipework was being joined together to be subsequently buried in the active tipping cell and become an active horizontal gas well.

George Augood stated that all failed welds should be removed according to their work procedure.

A survey was done at the location of the fire. No pollution or damage was done to the area surrounding the fire.

The well fusion took place on a perforated part of the pipe. Since the incident Infinis and Amgen have updated their method statement and procedures. Welds now must be undertaken on plain sections of pipe. A failed weld needs to be cut out and removed from the system and placed on to area of hard standing then observed for the duration of its cool down run.

Following the incident infinis undertook an investigation and produced a safety alert that was distributed within the organisation.

Infinis root cause analysis identified that If pipe is electrofused on the perforated area the holes in the pipe can allow the wires of the coupler to move and potentially touch and short out, in some cases this could lead to overheating, and be a source of fire. The pipework supplier advised that it is not recommended to fuse electrofusion joints over damaged/perforated/slotted pipe. All electrofusion welds should be onto clean solid pipe end spigots, as round as possible, correct to pipe size, and suitably scraped and clamped. The ends of the perforated pipe have a plain section at the end and in the middle for site jointing.

Infinis actions following the incident

- Anyone completing the work must be suitably trained and competent
- RAMS must be reviewed in advance of work starting by competent trained Infinis staff
- A failed weld must be cut out and removed from the system and placed on to an area of hard standing
- In all cases, Infinis safety protocol (EC 5.14 Electrofusion Method Statement.docx) should be followed EF works should never be conducted directly onto a perforated section of pipe

The EC 5.14 Electrofusion Method Statement was updated by Infinis following the incident.

Root cause

The root cause of the fire is due to the weld taking place on a perforated pipe and that the failed weld was not removed to a safe hardstanding and observed to cool down to a safe temperature.

The actions by both Infinis and Amgen significantly address the root cause of the fire.

Non-compliance: A category 3 non-compliance is given due to fire caused by the electrofusion of pipework. The fire had the potential to escalate and cause significant environmental harm. This is a breach of condition 1.1.1. **It is an offence under Regulation 38(2) of the Environmental Permitting Regulations (consolidated 2016) to breach a permit condition or emission limit. Non-compliance score 4.**

Action

Site to contact the fire service to arrange a visits and discuss emergency response to a fire.

END.

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

What are suspended scores?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry and Waste action criteria (used in section 1 and 2):**A: Permitted activities**

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within 20 working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 – 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.