

Compliance Assessment Report CAR_NRW0051971

Permit being assessed: CB3237AP.

For: Gwynedd Skip And Plant Hire Ltd, **held by:** Gwynedd Skip And Plant Hire Ltd

At: Lon Hen Felin, Cibyn Ind Est, Caernarfon, Gwynedd, LL55 2BD.

Type of assessment: Report/Data Review,

Reason: Other.

On: 30/06/2026.

Parts of permit assessed: As Below.

NRW Lead Officer: Kieran Evans.

Report sent to: Alan Hughes, Company Director, on 30/06/2026.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
W3G - Waste - Emissions and monitoring - Fire	Action only (X)	
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Result types are explained in more detail in the 'Important Information' section below.

Total non-compliances recorded	Total non-compliance score
0	0

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
W3G	Outline the amounts and types of waste received daily at the site, within the FPMP document. The use of approximates or ranges is acceptable to meet this requirement.	31/08/2026
W3G	Directly list batteries within waste deposits, within FPMP table 2.1 "common fire sources and mitigation".	31/08/2026
W3G	Amend the maximum storage period for <25mm trommel fines from <6 weeks to a maximum of <4 weeks (Unless proven as non combustible via a prepared basic characterisation assessment).	31/08/2026
W3G	Limit maximum bale storage height to 2.7 meters, in order to maintain a minimum of 1 meter freeboard (between the top bale and height of firewall), also include the structure in which bales are to be stacked during storage, with an outlined maximum number of bales to be stacked on one another.	31/08/2026
W3G	Implement and outline within the FPMP what equipment and methods are to be used to monitor temperature and moisture content throughout the entire depth of freestanding waste piles, within FPMP section 4.5 (or table 4.3).	31/08/2026
W3G	Outline the exact methods and equipment used to monitor combustible wastes stored within containers when they are stored in excess of 3 months, within FPMP section 4.6.	31/08/2026
W3G	Outline the following required procedures for the monitoring of stored baled waste at the site as outlined by the guidance: 1) A sampling and testing protocol to assess a minimum of 10% of bales. 2) The procedure for obtaining representative temperature readings from both the centre of bales and from bales at the centre of each stack pile. 3) Turning of bales to ensure waste stays cold.	31/08/2026

Criteria	Action needed	Complete by
W3G	Remove all references to a 4 hour fire resistance of a fire temperature of 1200 degrees Celsius due to a 100mm concrete thickness, along with the reference of EN13501-1:2007+A1:2009 in relation to fire resistance, from the FPMP document.	31/08/2026
W3G	Update the FPMP to include a suitable fire detection system capable of identifying fires at an early stage, or clearly demonstrate (with supporting evidence) that the current approach is equivalent or superior to the measures recommended in section 8 of the guidance.	31/08/2026
W3G	Re-seek confirmation from the Fire and Rescue service that the fire hydrant is suitable for use in an emergency.	31/08/2026
W3G	Provide evidence that the current suppression measures outlined within the FPMP are sufficient (with supporting evidence) and compliant with insurer/building requirements, as outlined in section 9 of the guidance.	31/08/2026
W3G	Clearly show the location of firewater containment booms on FPMP drawing No.0377-LHF-03.	31/08/2026
W3G	Clearly outline within the FPMP procedures for staff training, or assessing the need for additional staff training in the event of any changes in relation to the FPMP within the FPMP document.	31/08/2026

Compliance 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

As stated in site permit condition 3.5.1: *"The operator shall manage and operate the activities in accordance with a written fire prevention plan using the current, relevant fire prevention plan guidance."* This form is the formal response to be submitted to the operator, outlining the results of a review of the newly produced Fire Prevention & Mitigation Plan (FPMP), submitted to NRW on 29 January 2026.

The FPMP document has been produced by a third party environmental consultant on behalf of the operator.

W3G - Fire

Fire Prevention Plan Objectives

It is noted that FPMP section 1.2.1 outlines that the document has been prepared in accordance with NRW Fire Prevention & Mitigation Plan Guidance - Waste Management, Guidance Note 16 (Published August 2017) (GN16).

FPMP section 1.2.1 also states: *"This FPMP has been designed to meet the following objectives:*

- a) To minimise the likelihood of a fire happening.*
- b) Reduce the impact from emissions during or after a fire on the local community, critical infrastructure and the environment.*
- c) Ensure suitable resources required by NRW and other emergency responders are available during an incident; and,*
- d) To identify post incident clean-up and remediation costs."*

Please note that GN16 has been withdrawn and replaced by updated NRW FPMP guidance (hereby referred to as "the guidance") which can be found here: [Natural Resources Wales / Fire prevention and mitigation plans](#). This FPMP review has been conducted in line with the updated guidance.

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Amounts and Types of Waste Received Daily

Section 5 (what to include) of the guidance states: "Your plan must describe: The amount and type of waste you'll receive daily and how you manage it."

Within the FPMP document, no direct reference is made to the amounts and types of waste received daily at the site, apart from section 1.4.2 which states: *"Reference should be made to the Environmental Management System (EMS) for specific details regarding the acceptance, storage, treatment and removal of waste."*

The guidance stipulates that this information should be specifically outlined within the FPMP document itself. As a result, referring to another document (the EMS) for this data falls short of the requirements outlined in the guidance.

NRW appreciate that due to the nature of the business, the exact volumes of individual waste types may fluctuate on a daily basis. As a result NRW will accept approximates or ranges for the amounts and types of wastes received daily on the site, within the FPMP document. However the operator must include this within the FPMP to comply with the requirement set out in section 5 of the guidance.

ACTION: Outline the amounts and types of waste received daily at the site, within the FPMP document. The use of approximates or ranges is acceptable to meet this requirement.

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Common Causes of Fires and Preventative Measures

Section 6 of the guidance (*Common causes of fires*), lists common causes of fire and preventative measures operators can undertake to control the associated fire risks. Section 6 of the guidance outlines that it is the responsibility of the operator, to identify all possible fire risks and demonstrate adequate mitigation of these risks.

With reference to Section 2 of the site FPMP (*Managing Common Causes of Fire*) it is noted that table 2.1 - *Common fire sources and mitigation* outlines the following potential ignition sources:

- Arson or vandalism.
- Plant or equipment.
- Electrical appliances and cabling.
- Discarded smoking materials.
- Sparks from loading buckets/shovels.
- Hot works.
- Industrial heating.
- Hot exhausts.
- Build-up of loose combustible waste, dust and fluff.
- Hot loads.
- Overhead power lines.
- Ignition sources.
- Combustible non-waste materials.
- Reaction between wastes.
- Leaks and spillages of oils and fuels.
- "Tramp" metal (referencing wastes such as batteries).

As well as the mitigation measures the site employs, and the perceived associated fire risk both prior to and following the employment of these mitigation methods.

Whilst it is positive to see potential sources of fire considered by the operator and subsequent mitigation clearly outlined within FPMP table 2.1, Section 6 of the guidance outlines batteries within waste deposits as a potential source of ignition that the site should consider within their FPMP. It is noted that reference to batteries is made within the mitigation measures for "tramp metal" within FPMP table 2.1 as: *"Quarantine area and rejected waste containers on site for quick isolation of load containing batteries"*. Whilst NRW appreciate the consideration of batteries as a fire risk, directly listing batteries as a source of ignition within FPMP table 2.1 (rather than incorporated within *"Tramp metal"*) will further strengthen FPMP table 2.1.

ACTION: Directly list batteries within waste deposits, within FPMP table 2.1 "*common fire sources and mitigation.*"

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Waste Storage and Monitoring

Waste Storage Times

It is noted that Section 4 of the site FPMP (*Managing Waste Storage to Prevent Self-Combustion and the Fire Spreading*) covers the waste storage and monitoring procedures for the site.

Section 7 (*Managing waste*) of the guidance, outlines that the risk of self combustion for combustible waste types generally increases when materials are stored for a prolonged periods. Section 7 of the guidance outlines that operators must use maximum storage times dependent upon the combustible waste types being stored at the site. The maximum outlined storage times are as follows:

- Non-shredded or wastes whose particle size has not been reduced - 6 month storage time.
- Baled and compacted wastes - 6 month storage time.
- Shredded and similarly treated wastes (that is, wastes whose particle size has been reduced) - 3 month storage time.
- Combustible fines or dusts and very small particle size wastes - 1 month storage time.

FPMP section 4.1.2 outlines that the site will store combustible waste on site for an average of less than 4 weeks. FPMP section 4.2.1 outlines that table 4.1 of the FPMP (*Waste Storage Table*), details the maximum quantity, location and duration of wastes stored on site. It is stated that: *"This ensures all piles are stored in accordance with the FPMP guidance"* (GN16).

With reference to FPMP table 4.1, the majority of waste piles are stored for a period that ensures compliance with the maximum timeframes outlined in the guidance. However FPMP table 4.1 outlines that <25mm trommel fines from AREA 3B (Stored in AREA 17), are stated to be stored for a period of "<6 weeks", which is a period longer than the recommended maximum 1 month (approximately 4 weeks) maximum storage time for *"Combustible fines or dusts and very small particle size wastes"* as outlined in the guidance. In the absence of a basic characterisation assessment, trommel fines can not conclusively be defined as "non combustible", as they can often contain materials such as plastics, paper or dry organic matter which can be prone to combustion.

ACTION: Amend the maximum storage period for <25mm trommel fines from <6 weeks to a maximum of <4 weeks (unless proven as non combustible via a prepared basic characterisation assessment).

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Storage of Free Standing Piles (Combustible Wastes)

Section 7 of the guidance, outlines measures that operators can employ in order to reduce the risk of self combustion. Such measures include but are not limited to:

- Reducing risk factors such as exposed metals and the proportion of fines.
- Minimising stack sizes.
- Stock rotation.

- **Detection and control of hot-spots within waste piles.**
- **Monitoring of moisture levels.**

Section 7 of the guidance also outlines stacks maximum height and width, which are:

- **A maximum height of no more than 4 metres / 4 bales in height (whichever is lower).**
- **A maximum width of 20 metres (provided appropriate access for plant/machinery is available on both sides of stack).**
- **A maximum width of 10 meters in cases where plant access on both sides is not present.**

Storage and monitoring procedures for combustible free standing piles, are outlined in FPMP table 4.3 (Combustible waste storage/monitoring table (freestanding waste piles) of the site FPMP.

With reference to section 4.5.1 of the site FPMP it is noted that the following areas are excluded from FPMP table 4.3 as they are not considered (by the operator) to be combustible wastes:

- AREA 3A: <10mm trommel fines.
- AREA 3B: <25mm trommel fines.
- AREA 10: Oversize concrete, hardcore and stone from recycling plant.
- AREA 17: <25mm trommel fines from AREA 3B.
- AREA 18: Outputs of qualifying crushed material; mixture of <5mm - <25mm (from processing waste in AREA 20).
- AREA 20: Oversize brick stone for crushing or screening.
- AREA 21: Outputs of qualifying crushed material; mixture of <5mm - <25mm (from processing waste in AREA 20).
- AREA 22: Soils.
- AREA 27: Glass.
- AREA 28: Glass (from third parties).

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Storage of Bales

The storage of bales are outlined within FPMP section 4.7 (*Storage/Monitoring Procedures (bales)*), table 4.5 (*Combustible waste storage/monitoring table (bales)*), pictured below:

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
AREA 24 Bales of paper, cardboard and plastic to be baled	- Once processed bales will be stored in a three-sided concrete bay in an open fronted building for <4 weeks. - Bales are accessible from at least on side and from the top in the event of a fire occurring to allow access for firefighting. - Bales will not exceed the height of the surrounding walls. - In the event of a fire bales can be moved to the quarantine area. - Waste can be visually monitored 24/7 throughout the day by site operatives and by CCTV out-of-operational hours. - In terms of moving the waste in a fire incident, site management or the FRS will decide on the best course of action from a practical and safety point of view. - Due to the above it is considered no further storage or monitoring is required.

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Storage Period of Baled Waste

FPMP table 4.5 outlines that bales are to be stored in a three sided concrete bay, within an open fronted building for a maximum period of 4 weeks. With reference to the aforementioned maximum storage times for combustible wastes (as outlined in the guidance), the maximum recommended storage time for baled and compacted wastes is 6 months. Section 7 of the guidance states: *"If baled waste seems likely to exceed the storage time limits, you should consider breaking the bales and re-baling them to reduce fire risk. If you intend to do this, you must include this information in your plan"*. Currently the maximum storage time of 4 weeks as outlined in FPMP table 4.7 is well below the maximum storage period recommended by the guidance. As a result no provision for the breaking of bales to reduce fire risk is present within the FPMP. The operator however is encouraged to consider provisions of breaking bales should circumstances arise in which the maximum recommended storage period is, or becomes likely to be breached.

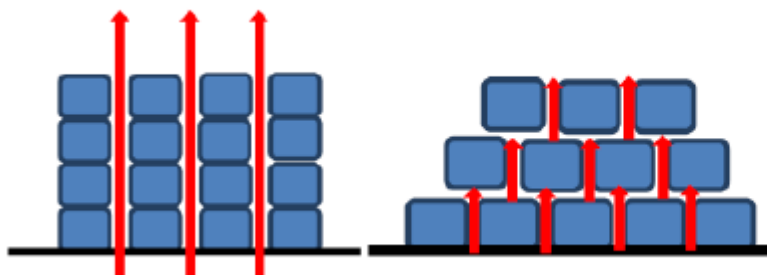
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Storage Height and Dimensions of Baled Waste

FPMP table 4.5 states that: *"Bales will not exceed the height of surrounding walls"*. FPMP section 4.2.3 outlines that all waste stored within bays (such as bales), will have a minimum of 1 meter of freeboard from the maximum height of the bay walls. With reference to FPMP table 4.1 (waste storage table), the outlined height of the firewall (AREA 24: baled waste) is 3.7 meters, with the outlined maximum waste storage height being 3 meters, achieving a freeboard of 0.7 metres. This falls below the outlined minimum of 1 meter freeboard between the height of firewalls/bays and waste stacks. In order to achieve a minimum freeboard of 1 meter, the maximum waste pile height of stored baled wastes will need to be no higher than 2.7 meters.

The guidance states that: *"Stacks more than four bales high may become unstable and collapse, which risks causing injury in both a non-fire and a fire situation. Stack collapse during a fire poses the risk of increased fire spread, as well as the unnecessary risk posed to fire fighters and their ability to fight a fire."*

The configuration in which baled wastes are stacked, can also have a direct influence on the fire risk posed by this waste stream when stored on site. The below image taken from the Waste Industry Safety and Health Forum (WISH) document - *Reducing fire risk at waste management sites*, shows how stacking bales directly on top of one another in rows can result in larger air flow channels (chimneys) between bales. In the event of a fire, this airflow can promote more rapid and energetic burning of the waste due to the increased availability of oxygen as a result of the chimney like airflow that stacking bales directly on top of one another can promote.



Far left: Standard bale storage may result in chimneys between bales promoting air-flow during a fire. Left: Interlacing bales may disrupt this chimney effect reducing air-flow and fire intensity

The guidance explains that operators should consider interlacing bales, in particular when storing baled wastes such as plastics and rubber which have higher burn temperatures. Setting a numerical limit on the number of bales to be stacked on top of one another, will serve to mitigate the risk of stack collapse. As a result the site should state the maximum number of bales to be stacked to a maximum of 4 or less, dependent upon how many bales can be stacked within a 2.7 meter height limit.

ACTION: Limit maximum bale storage height to 2.7 meters, in order to maintain a minimum of 1 meter freeboard (between the top bale and height of firewall), also include the structure in which bales are to be stacked during storage, with an outlined maximum number of bales to be stacked on one another.

Monitoring of Waste in Stacks, Containers and Bales

Stacks and Free-standing Piles

The *Monitoring and turning stacks* sub-section of section 7 of the guidance states:

- ***"The equipment you use to detect temperature and moisture content should be capable of operating at any depth throughout the stack. If you are proposing to have a stack 4m deep, your thermal monitoring equipment should be capable of operating through the depth of the proposed stack."***
- ***You should explain what indicators you will use in relation to temperature and moisture content, and the escalation of actions in relation to these indicators".***

FPMP table 4.3 (*Combustible waste storage/monitoring table (freestanding waste piles)*) outlines the combustible waste piles stored on site, along with the procedures implemented to reduce the risk of combustion. It must be noted once more, that site waste storage areas: 3A, 3B, 10, 17, 18, 20, 21, 22, 27 (as referenced in the FPMP) are not included as they are considered to be non-combustible by the operator.

Upon review of FPMP table 4.3 the following monitoring measures are applied to the following waste storage areas:

Areas 1, 2, 4, 5, 6, 7, 8, and 9 benefit from the following monitoring procedures:

- A heat sensor, which monitors the temperature within the waste waste reception building (monitored by a third party outside of operational hours). A trigger limit applies to the sensor, that when breached results in an automated call to the emergency services.
- Wastes visually monitored throughout the day by site operatives and trained personnel during operating hours.
- Visual monitoring via CCTV outside of operating hours.

Areas 13, 14, 15, 16, 19, 23, 25, and 26 benefit from the following monitoring procedures:

- Visual monitoring during operational hours.
- Monitoring by CCTV outside of operational hours.

In regards to the CCTV monitoring provisions at the site, it is also noted that FPMP area 7.2.1 states: *"Both all internal and external areas of the site benefit from a 24 hour remotely accessible motion sensor CCTV. The motion sensors will detect any sudden movement i.e. a piece of falling waste, animals, intruders, trespassers."*

Whilst measures such as motion detection within CCTV monitoring, along with the outlined automated emergency service call provisions (within heat sensors for the waste acceptance building) are positive additional steps, that can be employed by operators to monitor waste piles. Current monitoring procedures outlined within the FPMP fall short of the recommendations outlined within section 7 of the guidance.

Currently all monitoring measures for freestanding waste piles, do not monitor or detect temperature and moisture content throughout the depth of waste stacks, with monitoring of temperature and moisture content being limited to the outside of waste stacks.

ACTION: Implement and outline within the FPMP what equipment and methods are to be used to monitor temperature and moisture content throughout the entire depth of freestanding waste piles, within FPMP section 4.5 (or table 4.3).

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Containers

FPMP table 4.4 (*Combustible waste storage/monitoring table (containers)*) states: *"Waste to be stored in excess of 3 months will have temperature monitoring (assumed to be undertaken on the stored waste daily."* NRW are unable to assess the suitability and effectiveness of this temperature monitoring which is to be undertaken, when the exact methods and equipment used to complete this are not outlined within FPMP section 4.6 (*Storage/Monitoring Procedures (containers)*).

ACTION: Outline the exact methods and equipment used to monitor combustible wastes stored within containers when they are stored in excess of 3 months, within

FPMP section 4.6.

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Bales

The *Baled waste storage* sub-section of section 7 of the guidance states: **"If you are storing baled waste, your plan must show how you are reducing the risk of a fire occurring within the bales. We recommend your plan shows:**

- ***what sampling and testing protocol you will use to make sure you assess a representative number of bales (minimum 10%) during monitoring.***
- ***that you get representative temperature readings from the centre of the bales; and from bales within the centre of each stack.***
- ***that you turn the bales to make sure the waste stays cold."***

Within FPMP table 4.5 (*Combustible waste storage/monitoring (bales)*) none of the above requirements as outlined by Section 7 of the guidance are outlined within the site's FPMP.

ACTION: Outline the following required procedures for the monitoring of stored baled waste at the site as outlined by the guidance: 1) A sampling and testing protocol to assess a minimum of 10% of bales. 2) The procedure for obtaining representative temperature readings from both the centre of bales and from bales at the centre of each stack pile. 3) Turning of bales to ensure waste stays cold.

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Enclosing Stacks using Bays and Walls

The *enclosing stacks using bays and walls* sub-section of guidance section 7 states: **"Bays and fire walls must be of sufficient height, thickness and construction that offer a fire resistance period of at least 120 minutes to allow waste to be isolated and to stop fire spreading and minimise radiant heat."**

FPMP section 4.8.1 outlines that concrete firewalls on the site are constructed to the following standards:

- BS8110 Pt2 "Structural use of concrete Part 2 code of practice for special circumstances".
- BSEN1992-1-2 "Design of concrete structures. General rules. Structural fire design.

FPMP section 4.8.1 also states that: ***"In accordance with BSEN1992, the fire resistance of concrete structures over 100mm will have a fire resistance of 1200 (degrees Celsius) for 4 hours."***

The assumption of a fire resistance of 1200 degrees Celsius for 4 hours is used as a basis to justify the following in regards to fire walls on the site:

- Reduction of the need for a 6 meter separation distance between different waste piles.
- Reduce the need for a 6 meter separation distance between waste and the

permit/site boundary.

Annex B of BSEN1992-1-2 provides a simplified calculation method called the "500 degrees Celsius isotherm method", which is intended for standard fire conditions. It makes clear that alternative fire scenarios require separate analysis, demonstrating that fire resistance can not be conclusively defined by thickness alone.

Table B1 of BSEN1992-1-2 (pictured below) shows that achieving a 4 hour fire resistance (R240) requires a minimum cross section of approximately 280mm, not 100 mm.

a) Fire resistance.

Fire resistance	R 60	R 90	R120	R180	R240
Minimum width of cross-section mm	90	120	160	200	280

b) Fire load density.

Fire load density MJ/m ²	200	300	400	600	800
Minimum width of cross-section mm	100	140	160	200	240

The 500 degrees Celsius isotherm method also assumes that concrete heated above 500 degrees Celsius is no longer effective. This shows that performance depends upon gradual loss of strength over time, rather than resistance to a fixed temperature (such as 1200 degrees Celsius).

In summary, BSEN1992-1-2 does not support the statement made in FPMP section 4.8.1 that concrete over 100 mm thick will achieve 4 hours of fire resistance at 1200 degrees Celsius. As a result this statement should be removed from the FPMP document.

In regard to Legato blocks, FPMP table 4.6 (pictured below) states that: "Class A under EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements. Classification using test data from reaction to fire tests: concrete structures over 100mm will have a fire resistance of 1200 degrees Celsius for 4 hours."

Firewall type	Width	Site location / use	Specification
Concrete panels	0.18m	Waste transfer building	Concrete panels - Class A1 in accordance with Clause 4.3 4.4 of EN:13369 - >120 minutes
Legato Blocks	0.6m	External bays and surrounding fire walls	Class A under EN 13501-1:2007+A1:2009: Fire classification of construction products and building elements. Classification using test data from reaction to fire tests: concrete structures over 100mm will have a fire resistance of 1200oC for 4 hours.

EN13501-1:2007+A1:2009 is the European standard for the reaction of fire classification of construction products and building elements. EN13501-1:2007+A1:2009 evaluates how a material contributes to a fire's development, heat release and smoke

production. EN13501-1:2007+A1:2009 does not pertain to fire resistance.

Therefore the statement in FPMP table 4.6 (regarding Legato blocks) is inaccurate and should be removed.

Despite this, FPMP section 4.8.4 outlines that FPMP table 4.6 (*fire wall details and specifications*) is used to demonstrate the properties of the fire walls (concrete panels and legato blocks) which allow the following:

- Resist fire.
- Have a fire resistance period of at least 120 minutes to allow waste to be isolated and to enable a fire to be extinguished within 4 hours.

With reference to FPMP table 4.6, it is outlined that concrete panels for the waste transfer building have a width of 0.18M (180mm), and legato blocks, for external bays and surrounding walls have a width of 0.6m (600mm). By referencing the outlined widths of both the concrete panels and legato blocks, with the figures outlined in table B1 of BSEN-1-2, the following fire resistance times can be assumed:

- Concrete panels (180mm): Between 120-180 minutes (R120 - R180).
- Legato Blocks (600mm): at least 240 minutes (R240).

Therefore it can be reasonably assumed that both the concrete panels and legato blocks used at the site are in line with the requirements set out in section 7 of the guidance. This assumption stands under the condition that the concrete panels and legato blocks remain in an undamaged, fully maintained state (via monitoring and repair maintenance measures outlined in FPMP section 4.8.5).

ACTION: Remove all references to a 4 hour fire resistance of a fire temperature of 1200 degrees Celsius due to a 100mm concrete thickness, along with the reference of EN13501-1:2007+A1:2009 in relation to fire resistance, from the FPMP document.

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Fire Detection and Response Procedures

Section 8 (*Fire detection*) of the guidance states: "*You should ensure that you have adequate procedures in place to detect a fire in its early stages, at any time of the day or night, so you can reduce its impact. you should seek competent advice on the potential installation of a fire detection system*

Your detection system should be proportionate to the nature and scale of waste management activities you carry out and the associated risks

Appropriate automated systems may include:

- ***smoke and heat detectors including temperature probes.***
- ***CCTV visual flame detection systems.***
- ***spark, infrared and ultraviolet detection.***

The design, installation and maintenance must be covered by an appropriate UKAS-accredited third party certification scheme."

FPMP section 7.1.1 outlines the procedures for the detection (or suspected detection) of fire at the site by a member of staff during operational hours. FPMP section 8.1.1 outlines the procedures should it be judged that FRS assistance be required to manage a detected fire in the steps outlined in FPMP section 7.1.1.

Automated/Out-of-hours Detection and Response

As previously outlined, FPMP section 7.2.1 states that the site benefits from 24 hour remote accessible motion sensor CCTV, and that site management and directors have access to CCTV footage via mobile devices. FPMP section 7.2.1 also outlines that the CCTV is monitored by third-party security who will alert management and relevant authorities of any unusual or suspected activity (FPMP section 7.2.3 outlines that the third party is UKAS accredited).

FPMP section 7.2.2 also explains that, the previously outlined heat sensors within the waste transfer building are located above the waste picking line.

FPMP Section 7.2.4 and section 7.4.5 outline that should the out-of-hours contacts be unavailable due to sickness or holiday, a suitably trained alternative member of staff who lives within 5-10 minutes of the site, will be provided with a phone contactable by the monitoring company and directors (who will stand in temporarily to ensure sufficient out-of-hours procedures). It is also outlined that out-of-hours staff are trained in the following areas to reduce the impact of a fire:

- Mobile plant.
- Site drainage and surface water protection measures.
- Firefighting equipment.

FPMP section 7.2.7 states: *"Alternative measures - based on the following, it is considered that the installation of an automated detection system is not required for this facility:*

- a) Limited duration of waste stored at the site.*
- b) The operator and FRS' ability to attend the site within 5 minutes of notification in an incident."*

FPMP section 8.1.2 outlines that the operator will ensure than the site Technically Competent Manager (TCM) or a suitably competent deputy will be available to take command of an incident should one occur during operating hours.

FPMP sections 8.2.1 and 8.2.2 outline that the nearest fire station is located approximately 0.9 miles away from the site (hence the assumed response time of <5 minutes outlined in FPMP section 7.2.7), and that FRS access is maintained via access roads being above the minimum 3.7 meter width required, and the operator maintaining 3.7 meter access routes within the site at all times.

Finally FPMP section 8.3.1 and 8.3.2 outline that the most sensitive receptors (i.e. businesses, homes and organisations) in the immediate vicinity of the site are to be

contacted by the operator. Ideally the site will contact all receptors within 1km of the site, but the most sensitive will be prioritised.

In response to the above NRW note the following concerns:

1) Potential lack of early-stage detection:

It is noted that fire detection during working hours generally depends upon staff identification of fire. Appropriate automated systems, such as:

- Smoke and heat detectors
- CCTV visual flame detection systems
- Spark, infrared and ultraviolet detection

can often identify early stages of fires such as: smouldering and internal combustion within waste, at earlier stages than human detection could (especially at times where staff may be pre-occupied with other tasks as part of their day to day responsibilities). NRW encourage the site to employ the use of appropriate automated detection systems, to further strengthen early stage detection capabilities and procedures at the site.

2) Limited and indirect automated detection measures:

Whilst the outlined CCTV system and heat detectors are preferable to a complete lack of detection measures, such measures are considered to be limited in comparison to the automated detection systems that Section 8 of the guidance encourages sites to consider. There is no evidence that the site's CCTV system has visual flame detection capability, as encouraged by section 8 of the guidance. Subsequently, it is not considered to be a dedicated fire detection system, but rather the adaptation of a security system for secondary fire detection purposes. As outlined within FPMP section 7.2.1 motion detection CCTV will detect any sudden movement. Sudden movement (i.e. waste falling) may only occur at a later stage of fire development, and may fail to detect earlier signs of fire development.

Secondly, whilst the site should be commended for the use of a heat detection system, which places an automated emergency services call once a certain heat threshold is outlined, this is not considered to be comprehensive for the following reasons:

- The system is limited to one building within the site rather than the whole site.
- The system responds to elevated temperatures only, meaning that potential early signs of fire are missed.

3) Reliance on human attendance rather than automated detection:

The FPMP places significant reliance on rapid emergency response (by both site personnel and the FRS) as the primary means of controlling fire risk, rather than demonstrating adequate measures for early fire detection and response. Section 8 of the guidance states: *"you should ensure that you have adequate procedures in place to detect a fire in it's early stages, at any time of the day or night, so you can reduce it's impact"*, going on to outline the kinds of systems which may be adequate in achieving this (currently no such systems are listed within the FPMP). Reliance upon perceived rapid fire response, does not provide

an adequate substitute for early fire detection, the current measures may result in potential fires reaching a critical stage prior to visual identification or attendance on site. Furthermore the measures outlined within the FPMP do not provide sufficient evidence to support the assumption that perceived rapid response times (5-10 minutes) are adequate to prevent fire escalation or reduce environmental impact.

To conclude the site has not provided sufficient evidence to justify that the current detection and response measures demonstrate equivalent or superior effectiveness, in comparison to those recommended in section 8 of the guidance.

ACTION: Update the FPMP to include a suitable fire detection system capable of identifying fires at an early stage, or clearly demonstrate (with supporting evidence) that the current approach is equivalent or superior to the measures recommended in section 8 of the guidance.

Water Supplies

Section 11 (Water supplies) of the guidance states: "You must have sufficient water supplies available to your site for firefighting to take place and to manage a worst case scenario incident, for example your largest stack is on fire".

Depending on your site this could be water in storage tanks or lagoons on site, or access to hydrants or mains water supply."

The Hydrants sub-section of guidance section 11 also states: "The water supply to hydrants can vary due to the time of day and other demands on them. Hydrants also vary in size and the amount of water they can provide. You must confirm that any hydrant is accessible and suitable for use in an emergency."

FPMP section 10.2 outlines the site's on-site water supplies. It is outlined that the largest combustible waste pile equates to <269 cubic meters. The site calculates that in order to adequately extinguish the fire within 3 hours, approximately 322,920 litres of water is required. This would require a flow of approximately 1.794 litres per minute.

The FPMP notes the following water supplies available on site:

- IBC containers filled with water (capable of being mobilised around the site).
- Hose reels covering areas storing combustible and flammable materials.

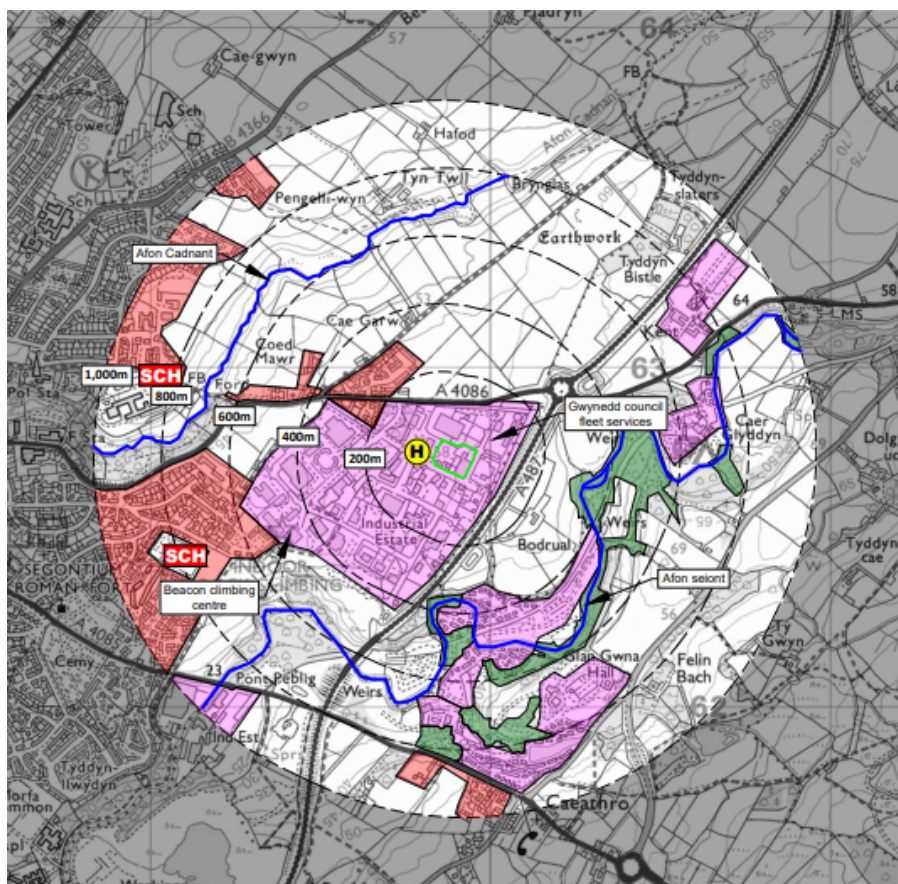
FPMP section 10.2.1 goes on to outline that despite the total required 322,920 litres of water not being on site, the site has access to mains water points, 20-50m fire hoses which have a flow rate of 300litres a minute (dependent upon water pressure at the time).

FPMP section 10.2.2 outlines that in addition to on site water supplies, the site also benefits from additional firefighting equipment.

FPMP section 10.3 outlines the external suppression (fire hydrant) provisions in the immediate area surrounding the site.

The nearest fire hydrant is located approximately 55 meters from the site, the location of

which is illustrated on FPMP drawing No. 0377-LHF-04 pictured below:



Crucially FPMP section 10.3.2 outlines that both Welsh Water and the FRS were unable to provide a flow rate for the hydrant on and off site. As a result the FPMP has used extracted guidance from the Local Government Association (LGA) / Water UK National Guidance Document ("*National Guidance Document on the Provision of Water for Firefighting*"), to detail the expected flow rates at the site (as outlined in FPMP section 10.3.3). It is assumed from the guidance that an industrial estate will have water supply for a mains network consisting of at least 150mm in nominal diameter, which will achieve the following flow rates:

- One hectare of 150mm mains coverage: 20 Litres per second.
- One to two hectares of 150mm mains coverage: 35 Litres per second.
- Two to three hectares of 150mm mains coverage: 50 Litres per second.
- Over three hectares of 150mm mains coverage: 75 Litres per second.

On the basis of these figures and the size of the industrial estate in which the site is located (being over 3 hectares in size), FPMP section 10.3.4 outlines that the site expects a water supply of approximately 4500 Litres per minute, which exceeds the required 1,794 litres a minute required to extinguish the largest pile on site (as calculated in FPMP section 10.2.1).

NRW note that these figures are an estimate based upon guidance, rather than an exact number in the absence of FRS/Welsh Water figures. Given the potential severity of a fire event, estimates alone can not guarantee suitability of both hydrants and water supplies.

Action: Re-seek confirmation from the Fire and Rescue service that the fire hydrant is suitable for use in an emergency.

Automated Suppression

Section 9 (Fire suppression) of the guidance states: "If you store waste in a building, you should seek competent advice on the potential installation of a fire suppression system. This system should be proportionate to the nature and scale of waste management activities you carry out and the associated risks. Consider the different activities that are carried out within the building and whether different systems may be appropriate in different areas, or near certain equipment like conveyor belts and shredders.

Materials must be kept a minimum of 3m (metres) below the level of the spray or sprinklers

When deciding what type of system to install you need to consider that:

- **the Fire and Rescue service may not be able to enter the building during a fire.**
- **a suppression system may not extinguish a fire, although it may prevent a fire spreading and allow the fire to be fought effectively by the fire and rescue service.**
- **the water supply to a fire system is reliable and adequate at all times.**

Appropriate fire suppression systems may include:

- **sprinklers**
- **manual open deluge systems**
- **deluge/water spray systems**
- **mobile foam trolley**
- **water monitors/cannons/curtains**

You should ensure that the design, installation and maintenance of all your automated suppression equipment is covered by an appropriate UKAS-accredited third party certification scheme."

It is noted that FPMP section 9.1.1 - 9.1.5 cover site wide suppression. These sections outline the aforementioned alternative suppression methods available on site. Additionally these sections outline the presence of "*numerous members of staff who are fully trained in using mobile plant to assist in firefighting*", along with the following additional measures:

- Out of hours plant storage to isolate waste at risk of combusting in the event of a fire.
- Direct access into the building (waste reception and sorting) for external FRS suppression if required.
- All waste piles stored internally are below the limits shown in the FPMP guidance in terms of size and duration of storage, reducing the size of a fire.

- All staff working in the building can operate hoses and extinguishers.

FPMP section 10.5.1 expressly outlines that: *"There is no automated suppression system for waste stored within the buildings, the main sorting/waste reception shed has permanent access in the event of a fire from the external yard."* It is also stated that due to the previously outlined detection systems covering the waste storage and processing areas, the operator considers that: *"no automated suppression is required for waste stored within the sorting and reception shed. See section 7.2 for alternative measures."*

Finally section 10.5.2 of the FPMP states: *"It is considered the out of hours detection i.e. CCTV and heat detection systems monitored by third parties and the use of hoses/fire extinguishers is a suitable alternative to automated suppression prior to the FRS arrival (if required)."*

NRW note that in a similar nature to fire detection measures on the site, fire suppression is reliant upon physical attendance and response, by both staff and the FRS.

Whilst Section 9 of the guidance does not explicitly require the site to have a suppression system installed at the site, the guidance states: *"Many insurers have specific requirements for fire alarm, detection and suppression/extinguishing systems. If you fail to meet these requirements your insurance may be invalidated. Planning and building regulations may also apply depending on the size of your building."*

Within the FPMP the operator has not provided sufficient evidence that competent advice has been sought. No reference to consultation with insurers/building regulation is made within the FPMP to confirm that the proposed approach aligns with such requirements.

To conclude, at present the outlined measures are not fully compliant with Section 9 of the guidance. Further evidence and justification is required to demonstrate that the omission of an automated suppression system is informed by competent advice rather than a reliance upon perceived response times by staff and the FRS.

ACTION: Provide evidence that the current suppression measures outlined within the FPMP are sufficient (with supporting evidence) and compliant with insurer/building requirements, as outlined in section 9 of the guidance.

Firefighting Strategy

Section 10 of the guidance (*Firefighting strategy*) states: *"It is important that you design your site layout to allow for active firefighting. Active firefighting means always having the resources available on site to fight a fire. This will help allow a fire to be extinguished within the shortest time possible."*

Active firefighting does not mean that you or your staff have to fight the fire; no one should put themselves at risk by trying to fight a fire.

Active firefighting means having the resources available on site at all times to fight a fire."

As previously outlined FPMP sections 9.1.1 - 9.1.5 outline the general firefighting

provisions on the site. The outlined provisions include:

- IBC water containers that can be moved around site.
- Strategically placed hose reels.
- Fire extinguishers located in close proximity to waste piles.
- Dust cannons in the main waste transfer building (that can be used to assist in fire suppression).

It is also outlined within these sections of the site FPMP that mobile plant can be used to assist in firefighting efforts. Please note that Section 10 of the guidance allows sites to use mobile plant in their firefighting efforts as long as they are fit to protect those who operate them during firefighting efforts. Such provisions include but are not limited to:

- Having completely enclosed cabs.
- Fire and heat protected hydraulic systems.
- Given the increased use of electric vehicles, operators should also consider potential Lithium-ion batteries that may be present in mobile plant (and the risks these can pose).

It is also noted that the site ensures that direct access is maintained for the FRS at all times, with dedicated access routes being clearly marked on FPMP drawing No.0377-LHF-03.

Managing water run-off

Section 12 of the guidance (*Managing water run-off*) states: "You must be able to contain the run-off from fire water to prevent pollution of the environment. You must be able to implement proposed measures within a realistic timescale without hindering the efforts of the Fire and Rescue Service."

The containment facilities and pollution equipment you need will depend on the:

- ***size of your site***
- ***amount of waste you store***
- ***firefighting strategy"***

It is noted that Sections 11.1.1 - 11.4.1 of the FPMP (*Managing Fire Water*) outlines the measures the operator takes in order to meet the requirements set out in section 12 of the guidance.

It is outlined within the FPMP that whilst the site is predominantly surrounded by concrete fire walls which will serve to contain fire waters, firewater containment booms will be placed across areas (such as the site entrance) which do not benefit from firewall coverage, in an effort to create a lagoon effect to contain fire waters.

The FPMP estimates that in line with the water supply requirements to extinguish the largest waste pile on site, a total of 322.9 cubic meters of water would be used. FPMP table 11.1 (*Firewater Containment Calculation*) pictured below outlines the site's calculations in assuming a total containment of >0.08 cubic meters of firewater storage capacity.

Table 11.1 - Firewater Containment Calculation

Volume of Water (m ³)	Containment Area (m ²)	Containment Required	Total Containment On Site
322.9	3,700 (sealed concrete pad)	$322.9/3,700 = 0.08\text{m}^3$	0.16m firewater containment boom and 6m high boundary walls. >0.08 additional capacity available.

It is outlined within FPMP sections 11.3.2 - 11.3.3 that deployment of firewater containment booms will be by a trained member of staff along with the outlined boom deployment procedure.

FPMP section 11.3.5 outlines that booms are to be regularly checked during a fire event to ensure that they continue to provide the required containment. In cases where sufficient containment is not being achieved, secondary lengths of booms can be deployed.

FPMP section 11.4.1 outlines that following a fire event, contained/contaminated fire water from extinguishing a fire will be pumped by a hired (assumed third party) vacuum tanker, to be deposited at a suitable permitted facility.

The detail to which the operator has described these measures is appreciated, however one issue is noted, which if actioned can be easily rectified. The FPMP states that the location of fire water containment booms are shown on drawing No.0377-LHF-03. However upon review of drawing No.0377-LHF-03, the storage location of firewater containment booms is not visible (as indicated on the key for drawing No.0377-LHF-03). The inclusion of which, whilst small may be a crucial detail for emergency services such as the FRS in the event of a fire.

ACTION: Clearly show the location of firewater containment booms on FPMP drawing No.0377-LHF-03.

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Reviewing and Monitoring of the FPMP

Section 16 (Reviewing and monitoring your Plan) states: "It is essential that you ensure your plan is kept up to date to ensure that you maintain compliance. It should be treated as a live working document and be reviewed regularly to reflect any changes that your business."

FPMP section 1.3.1 outlines that the FPMP document is to be reviewed on a biannual basis, in the case where there are changes to FPMP guidance, or if any of the following occur:

- A fire incident.
- Additional combustible waste types are accepted on site.
- An increase in the annual throughput of combustible waste accepted.
- An increase to the amount of combustible waste stored on site.
- Construction of new infrastructure.

- Installation of new plant/equipment.

It is noted that FPMP section 1.3.2 states: *"Reference should be made to Sections 7.2 and 7.3 which details procedures for staff training in the event of any changes in relation to the FPMP."* However with reference to FPMP section 7.2 (*Automated/out-of-hours detection*), whilst section 7.2.4 outlines areas in which staff are trained in order to reduce the impact of a fire, no staff training in relation to changes to the FPMP are outlined. Furthermore no Section 7.3 is present within the FPMP, as a result no procedures for staff training in the event of changes to the FPMP are outlined within the document.

ACTION: Clearly outline within the FPMP procedures for staff training, or assessing the need for additional staff training in the event of any changes in relation to the FPMP within the FPMP document.

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Please note the actions outlined in this Compliance Assessment Report, are due by the 31 August 2026.

NRW wishes to recognise the positive steps, taken by the operator in preparing this FPMP document, and the subsequent measures already outlined within the FPMP. If the operator requires any further guidance or information, please do not hesitate to contact us.

"In this document "Natural Resources Wales" means the Natural Resource Body for Wales established by Article 3 of the Natural Resources Body for Wales (establishment) order".

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Please find below relevant links in relation to this FPMP review:

- NRW Guidance on Fire Prevention and mitigation plans
 - [Natural Resources Wales / Fire prevention and mitigation plans](#)
- WISH document: *Reducing fire risk at waste management sites guidance*.
 - [WASTE-28.pdf](#)
- Eurocode2: Design of concrete structures - Part1-2: General rules - Structural fire design.
 - [Eurocode 2: Design of concrete structures - Part 1-2: General rules - Structural fire design.](#)
- National Guidance Document on the Provision of Water for Firefighting.
 - [National Guidance Document on the Provision of Water for Firefighting](#)

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ENDS

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 required for the permit condition assessed to avoid non-compliance. No non-compliance scored at this time
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.

If your assessment result in Section 1 is suspended, what does this mean?

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 Waste compliance criteria (used in section 1 and 2):**1. Management**

- W1A – General management
- W1B – Energy Efficiency (MCP/SG facilities only)
- W1C – Avoidance, recovery and disposal of wastes produced by the activities

2. Operations

- W2A – Permitted activities
- W2B – Waste recovery plan
- W2C – Operating techniques
- W2D – The site
- W2E – Waste acceptance
- W2F – Technical requirements
- W2G – Improvement programme
- W2H – Pre-operational conditions

3. Emission and Monitoring

- W3A(1) – Emissions to water
- W3A(2) – Emissions to air
- W3A(3) – Emissions to land
- W3B – Emissions of substances not controlled by emission limits
- W3C – Odour
- W3D – Noise and vibration
- W3E – Monitoring
- W3F – Pests
- W3G – Fire

4. Information

- W4A – Records
- W4B – Reporting
- W4C – Notification

Enforcement response

Any non-compliance with a permit condition 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 twenty working days to let you know if we agree to your request.

Disputing the Content of this Compliance Assessment Report Form

If you disagree with the content of this Compliance Assessment Report form, you should submit your concerns, in writing, to the regulating officer who issued it within **15 working days** of its issue. This will be treated as a **Stage 1 review**.

If you are not satisfied with the outcome of the stage 1 review, you may request a **Stage 2 appeal**. This request must be submitted **within 21 working days** of receiving the response from the stage 1 review.

Further details on our review and appeal process are available at: [Natural Resources Wales / Appeal a regulatory decision from Natural Resources Wales](#)

Concerns Not Related to the Content of this Compliance Assessment Report Form

If your concerns do not relate to the content of the Compliance Assessment Report form, you should first attempt to resolve the issue with the regulating officer or their line manager.

If the issue remains unresolved, please contact our **Customer Contact Team**:

- **Telephone:** 0300 065 3000 (Monday to Friday, 09:00–17:00)
- **Email:** enquiries@naturalresourceswales.gov.uk

They will provide details on how to escalate your concerns through our **Complaints and Commendations procedure**.

If you are dissatisfied with our response, you may contact the **Public Services Ombudsman for Wales**:

- **Telephone:** 0300 790 0203
- **Email:** 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.