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Summary

This assignment provides an in-depth analysis and evaluation of the health and safety systems implemented at Welsh Water, including the company's compliance with key regulations such as HASAWA, COSHH, RIDDOR, PUWER, and First Aid requirements. It analyses how Welsh Water applies structured procedures like PPE enforcement, risk assessments, isolation protocols, and emergency response systems to maintain a safe working environment. The report also assesses factors influencing daily operations, including regulatory pressures, environmental risks, and financial limitations, and evaluates both preventative and reactive safety measures. Finally, it examines how employee knowledge and motivation are maintained through training, support services, and development opportunities, determining that Welsh Water maintains a positive, compliant, and safety-driven workforce.

Introduction and Overview

Welsh Water:

Welsh Water operates in Wales and England and provides clean and safe drinking water and wastewater services. Health and safety is a top priority. Welsh water has a thorough health and safety framework to ensure there are adequate health and safety policies and systems in place to protect employees, contractors and public. Welsh water complies with health and safety related regulations and industry standards to mitigate the risks within the workplace. According to their Health, Safety and Wellbeing Policy Statement, the safety of their employees, contractors and members of the public is their top priority (Welsh Water, n.d.a). Additionally, according to their 2023-2024 safety report, they have achieved their second year with their lowest HSE RIDDOR reportable injuries along with a successful assessment by Healthy Working Wales retaining Welsh Waters Platinum and Gold Corporate Health Standards (Welsh Water, 2024).

TATA Steel UK:

According to TATA Steel UK's Health and Safety Policy, the company is committed to zero harm to their employees and other people they work with. Additionally, Health and Safety is said to be an integral part of their business. TATA Steel UK aims to go beyond regulations and industry standards to become a world leading organisation in regard to Health and Safety performance (TATA Steel UK, 2024).

1 - Health and safety systems and procedures implemented

Regulations and Industry Standards Compliance:

1. Health and Safety at Work Act 1974 (HASAWA)

According to Welsh Water's site induction, it informs employees to take reasonable care of their own health and safety and ensuring activities do not breach the health and safety of others, such as wearing appropriate PPE. The employer is also responsible for providing a safe place to work for the employee by having a risk assessment and providing training. These align with the HASAWA (HSE, n.d.).

2. Control of Substances Hazardous to Health (COSHH):

Welsh Water takes adequate precautions when it comes to hazardous substances. They are as follows:

Each task requires a risk assessment and method statement. Jobs that involve hazardous substances identify them with safe handling and control measures required. Each work site also contains a COSHH register with chemicals that are present on site to ensure employees are aware of potential hazards before work commences. This is effective, as hazardous substances are clearly identified and assessed before use. An example of this is requiring breathing apparatus to work with polyelectrolyte. To improve, employees could be encouraged to review COSHH assessments regularly to ensure risk controls are updated. Welsh Water's COSHH standards appear to align with the standards set out by the HSE (HSE, n.d.a). TATA Steel also conducts COSHH assessments which evaluates health risks and outlines safe methods for utilisation, control, storage, and disposal. The assessment covers recommendations for appropriate Personal Protective Equipment (PPE) during substance handling. COSHH assessments, shown department database accessible on the Intranet, are accessible to all employees.

Personal Protective Equipment (PPE):

It's mandatory for Welsh Water to provide PPE and makes it mandatory for employees to wear task specific PPE, such as gloves, safety glasses, hard hats and breathing apparatus for handling hazardous chemicals. Their site also requires them to wear a high visibility jacket and steel toe caps. When working with equipment, such as sodium hypochlorite, employees are required to wear a full chemical suit. PPE is also required to be inspected before use and employees are trained to use some specialist PPE. PPE is also said to be stored correctly, such as harnesses to prevent damage. Welsh Water ensures these align with the personal protective equipment (PPE) at work regulations (HSE, n.d.b).

PPE policies appear to be enforced and can be improved, such as conducting PPE spot checks for compliance. TATA Steel have a similar system where PPE is task based. Such as with switching high voltage, gauntlets are to be worn along with a visor.

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR):

In order to keep RIDDOR events down to a minimum, Welsh Water have adopted a near miss system and can be escalated if necessary. If an accident were to occur, reporting would be followed as per RIDDOR requirements. This system is effective, as near miss events can be escalated to prevent hazards before they escalate into serious incidents. TATA Steel UK have adopted the same type of system and works effectively. As mentioned previously in the Health and Safety Report 2023-2024, the company has reported no incidents, hence meeting the RIDDOR requirements in the past two years (Welsh Water, 2024). The company also have 'Toolbox Talks' where there are safety briefings to address concerns and share best practices (see figure 1 in the appendix).

The Provision of Use of Work Equipment Regulations 1998 (PUWER):

Welsh Water ensure designers involved in electrical and mechanical aspects of pumping stations consider PUWER and that equipment is designed and utilised in a way that prioritises compliance and safety (Welsh Water, 2021).

First Aid at Work Regulations 1981:

The HSE states that *“The Health and Safety (First-Aid) Regulations 1981 require employers to provide adequate and appropriate equipment, facilities and personnel to ensure their employees receive immediate attention if they are injured or taken ill at work. These Regulations apply to all workplaces including those with less than five employees and to the self-employed.”* (HSE, n.d.c)

Knowing this, the company appears to have adequate and effective first aid systems in place in the case of an incident, as Welsh Water provides facilities such as eye wash kits and eye protection, should an injury to the eyes occur. There are also first aid boxes that are provided in the laboratory along with Welsh Water vehicles. The company also have 2 first aiders that are highlighted on entry and in every site induction. This is the same with TATA Steel.

Other Safety Protocols:

Safe Working Procedures:

Risk assessments and method statements are required to undertake all task, especially tasks involving hazardous conditions. Welsh Water has a ‘take 5’ system where the employee is required to answer 3 health and safety questions according to the task and then check their surroundings and do an informal risk assessment. This is effective as it the company encourages every employee to do this, and it reinforces the safety of their workforce (see figure 2 in the appendix). TATA Steel use a similar ‘Point of work risk assessment’ where a quick risk assessment is carried out before doing the work. Some jobs also require permits and safe working procedures to follow (see figure 3 in appendix)

Fire Safety Measures:

Welsh Water have fire emergency procedures in place which include having fire assembly points and guidance on where to assemble. The Welsh Water site also contains an automatic and manual fire alarm, with appointed marshals to follow fire procedures. There is also a fire awareness course that all employees must undertake. Overall, there are adequate measures in place to ensure employees are aware of procedures in place and know what to do in the case of a fire (see figure 5 in the appendix). Similarly, TATA Steel also provide similar fire training. Some employees are also trained to switch automatic fire systems to manual when entering some areas.

Training Programs:

Welsh Water have training programs in place to ensure compliance with legislation and company policies. Some of these training programs include COSHH awareness, electrical safety awareness, multi-skilled development training and emergency first aid at work training. The company sets out targets for employees to ensure they stay within compliance. There is emphasis on continuous improvement and the company's structured training plans ensure employees are prepared to handle workplace scenarios safely. (See figure 4 in the appendix). TATA Steel use the same system in which programs are in place depending on the employee in order to gain the relevant competence.

Isolation Procedures:

Welsh Water have adopted the 'lock off and tag out' procedure to ensure machinery is isolated and cannot be started back up until work is complete and the locks are removed. The company has qualified electricians to isolate mechanical equipment, therefore immobilising it, making it safe to work on. (See figure 6 in the appendix). The person working on the equipment is also required to receive relevant permit to work and issue their own lock to guarantee no equipment interference. This procedure is very similar to TATA Steel's '1 person 1 lock' procedure and guarantees the equipment cannot be energised until all locks are removed, and permit to work ensures the employee is aware of health and safety aspects and follows relevant procedures. (See figure 7 in the appendix).

Overall, Welsh Water is committed to having structured and comprehensive training, isolation procedures that guarantee the safety of the employees, well-defined working procedures and strong first aid and fire safety procedures. These practices not only protect employees but improve operational efficiency and reinforce the company's reputation.

2 – Factors that influence the company and its impact on daily operations

There are several factors that can influence operations and daily activities at Welsh Water, which include regulatory compliance, environmental challenges and financial considerations.

Regulatory Compliance:

Welsh Water must adhere to regulations set out by environmental agencies such as Ofwat. Ofwat has prevented companies from using customer funds for executive bonuses due to poor performance, emphasizing the need for improved accountability. Non-compliance can lead to financial penalties and reputational damage (thetimes, 2021).

Environmental Challenges:

Climate change presents challenges to companies like Welsh Water, such as increased rainfall intensity which raises the risk of flooding and damage to infrastructure which has been found to happen in Wales. This can result in service disruptions due to overwhelmed drainage systems which lead to environmental pollution, such as sewage overflow that can result in fines (Welsh Water, n.d.c).

Financial Constraints:

As a non-profit organisation, Welsh Water invests their income into service improvements, in which financial constraints can impact these improvements and timing of these investments. For example, Ofwat's price reviews determine spending limits and bill increases (Jolly, 2024). This can impact daily operations by sites facing delays in upgrading their infrastructure.

3 - Preventative and Reactive Measures

There are preventative and reactive measures in place at Welsh Water that have already been highlighted. Some of which are as follows:

Preventative Measures:

Isolation and locking off – Isolations are locked off to prevent anyone else switching in machinery that could cause accidents.

Training – This can be seen as a preventative measure, as Welsh Water ensures that employees have the adequate training through courses to prevent accidents that are a result of incompetence.

Structured Safety Procedures – Method statements, risks assessments and toolbox talks reinforce best practices and allow employees to address safety concerns within the workplace at Welsh Water, which can help reduce the likelihood of accidents.

Equipment Maintenance and Inspections – Welsh Water adheres to PUWER regulations ensuring regular maintenance is completed to prevent failures, also reducing the likelihood of accidents.

TATA Steel UK have very similar preventative protocols, such as risk assessments, safe working procedures and permits. Employees are also ensured to have adequate training before carrying out tasks.

Reactive Measures:

Incident and Near Miss Reporting – Welsh Water emphasises the importance of reporting near misses and dangerous occurrences by ensuring employees utilise their near miss system which can be escalated if necessary.

Emergency Response Protocols – Welsh Water have reactive emergency response procedures, such as their fire safety measures, ensuring they have assembly points, manual and automatic fire alarms. Additionally, trained fire marshals also ensure there is an effective response to incidents.

First Aid Facilities – Welsh Water also ensures there are first aid stations in the event of an incident, also with first aid trained personnel.

Again, TATA Steel have similar reactive measures, which also include reporting near misses, adequate fire assembly points, manual and automatic fire systems, first aid trained employees and first aid stations.

Welsh Water also use devices called the Blackline Safety Device which is used as a preventative and reactive measure when lone working (see figure 8 in appendix). They are used for detecting falls and gases. If detected, they will alarm, but if not silenced by the user, the monitor will alarm out to a emergency response hub where blackline staff will speak through the monitor and try to check on the individual. If this is not available, the blackline staff member will send emergency response to that individual (blacklinesafety, n.d.). TATA Steel have employees use radios and gas monitors; however, they don't alarm anyone else in case of an accident. TATA Steel could adopt the use of blackline safety devices as a further preventative and reactive measure.

4 - Employee Knowledge and Motivation

Employee Knowledge:

Welsh Water have training programs for employees to expand their knowledge and comply with company policies. Their employees can also access an online portal to see which courses are available and mandatory (see figure 5 in appendix). TATA Steel uses the exact same type of training portal for their employees. Welsh Water also provides early career opportunities, such as apprenticeships, internships and work experience programs which offer trainee programs and career progression (WelshWater, n.d.b).

Employee Motivation:

Welsh Water provide ways to help their employees stay motivated, which include assistance programs for mental wellbeing. They offer a 'Digicare+' service which gives employees access to clinical service and advice along with access to mental health consultations. They also have a wellbeing library, which is an online library that employees can access (see figure 9 in appendix). Welsh Water also have employee benefits, such as discounts for attraction centres, employee assistance program and enhanced employer pension contributions (Welsh Water, n.d.d)

Conclusion

Overall, Welsh Water has demonstrated a commitment to health and safety through structured systems and policies that align with legislation such as HASAWA, COSHH, RIDDOR etc. The company has integrated various preventative and reactive measures like training, risk assessments, isolation procedures and near miss reporting into daily activities to protect their employees, contractors and the public. External factors such as regulatory compliance, environmental challenges and financial constraints influence operations, but Welsh Water adapts to these challenges through reinvestment. Employee knowledge and motivation are supported through training, wellbeing programs and career development opportunities, which contribute to a strong organisational culture. TATA Steel UK overall has similar health and safety policies and training requirements along with structured training programs and isolation procedures. TATA Steel UK could adopt the use of blackline safety devices like Welsh Water to further improve preventative and reactive measures for lone working.

Works Cited

blacklinesafety, n.d. *Powering*. [Online]

Available at: <https://www.blacklinesafety.com/>

[Accessed 10th April 2025].

HSE, n.d.a. *How to carry out a COSHH risk assessment*. [Online]

Available at: <https://www.hse.gov.uk/coshh/basics/assessment.htm>

[Accessed 20th March 2025].

HSE, n.d.b. *Personal protective equipment (PPE) at work regulations from 6 April 2022*. [Online]

Available at: <https://www.hse.gov.uk/ppe/ppe-regulations-2022.htm>

[Accessed 20th March 2025].

HSE, n.d.c. *Legislation - First Aid at Work*. [Online]

Available at: <https://www.hse.gov.uk/firstaid/legislation.htm>

[Accessed 21st March 2025].

HSE, n.d. *Health and Safety at Work etc Act 1974*. [Online]

Available at:

<https://www.hse.gov.uk/legislation/hswa.htm#:~:text=The%20Health%20and%20Safety%20at,a nd%20members%20of%20the%20public>

[Accessed 20th March 2025].

Jolly, J., 2024. *Water bills in England and Wales: how much more might you pay in your area?*. [Online]

[Online]

Available at: https://www.theguardian.com/money/2024/dec/19/water-bills-england-and-wales-how-much-rise-charge?utm_source=chatgpt.com

[Accessed 29th March 2025].

TATA Steel UK, 2024. *Health and Safety*. [Online]

Available at: <https://www.tatasteeluk.com/health-and-safety>

[Accessed 20th March 2025].

thetimes, 2021. *Regulator puts ten water companies on financially at-risk list*. [Online]

Available at: https://www.thetimes.com/article/regulator-puts-ten-water-companies-on-financially-at-risk-list-q96h66xlb?utm_source=chatgpt.com

[Accessed 29th March 2025].

Welsh Water, 2021. *Sewers for Adoption 7th Edition Addendum*. [Online]
Available at: <https://developers.dwrcymru.com/-/media/project/files/page-documents/developer-services/help-and-advice/dcww-addendum-to-sewers-for-adoption-7th-edition---march-2021.ashx>

[Accessed 21st March 2025].

Welsh Water, 2024. *Health and Safety Report 2023-2024*. [Online]
Available at: <https://corporate.dwrcymru.com/en/library/health-and-safety-reports>
[Accessed 20th March 2025].

Welsh Water, n.d.a. *Health and Safety*. [Online]
Available at: <https://corporate.dwrcymru.com/-/media/Project/Files/Page-Documents/Corporate/Library/Integrated-Management-Systems/2022/English/Health-Safety-and-Wellbeing-Policy-Statement-April-2022.ashx>
[Accessed 20th March 2025].

Welsh Water, n.d.c. *Our Journey to Net Zero*. [Online]
Available at: https://corporate.dwrcymru.com/en/journey-to-zero?utm_source=chatgpt.com
[Accessed 29th March 2025].

Welsh Water, n.d.d. *Bringing Culture & Community*. [Online]
Available at: <https://www.dwrcymru.com/en/careers/life-at-welsh-water?>
[Accessed 10th April 2025].

WelshWater, n.d.b. *Bringing Early Careers*. [Online]
Available at: <https://www.dwrcymru.com/en/careers/early-careers>
[Accessed 10th April 2025].

Appendix

Toolbox talk

Toolbox talk is a method the company uses to brief teams about safety concerns that have happened within the company.

TOOLBOX talk



No. 065 Fire Safety

Background

The Regulatory Reform (Fire Safety) Order 2005 (the Order) came into effect in October 2006 and replaces previous fire safety legislation. The Order places the onus for fire safety on the owner/occupier of the premises.

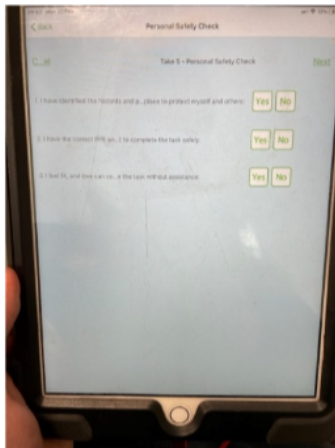
The Order covers general fire precautions and other fire safety duties that are needed to protect 'relevant persons' in case of fire in and around most 'premises'. The Order requires suitable and sufficient Fire Risk Assessments [FRAs] to be carried out and fire precautions to be put in place 'where necessary' and to the extent that it is reasonable and practicable in the circumstances of the case.



Our Health and Safety Procedure for fire safety is HSP 113. The procedure states the requirements to manage fire safety within Welsh Water. This toolbox talk aims to give managers, supervisors, co-ordinators and all colleagues a clear outline of their responsibilities. Reference should be made to the procedure for further detail and advice or guidance can be sought from your local Health and Safety Advisor.

Figure 1 - Toolbox Talk

I started the task by pressing play on my iPad for the specific job this then shows three questions I must answer before carrying out the job. These three questions are there to follow the company's



policy, I “took 5”, which means I check my surroundings and do an informal observation risk assessment. Welsh Water as a company have many safe working procedures to follow and highlight their slogan in regard to health and safety which is “take 5”, this is a method that the company encourage every worker including myself to take 5 minutes to assess any dangers or hazards that may be apparent. If during this observation I identify a hazard that impacts on my normal working practice, then I would speak immediately with my supervisor so that the necessary remedial actions can be created and recorded. There can be many various types of hazards when entering a workplace such as dangerous substances, e.g. acid, and for this a necessary COSHH should be available to guide the

individual on how to work safely. I have a responsibility to identify hazards every day and escalate to line manager, or/and if safe to do so take steps to decrease the risk immediately. Any hazards identified must be highlighted to all to prevent harm to others and should be noted in the risk assessment.

Figure 2 - Take 5 Procedure

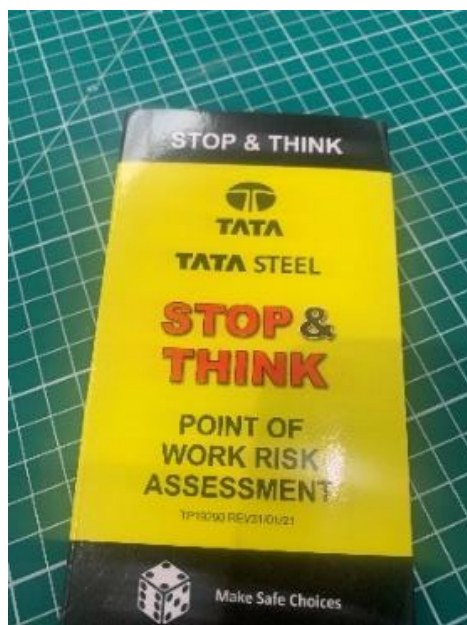


Figure 3 - TATA Steel Point of Work Risk Assessment

[COSHH Awareness \(HSP 704\)](#)

[Electrical Safety Awareness \(HSP 403\)](#)

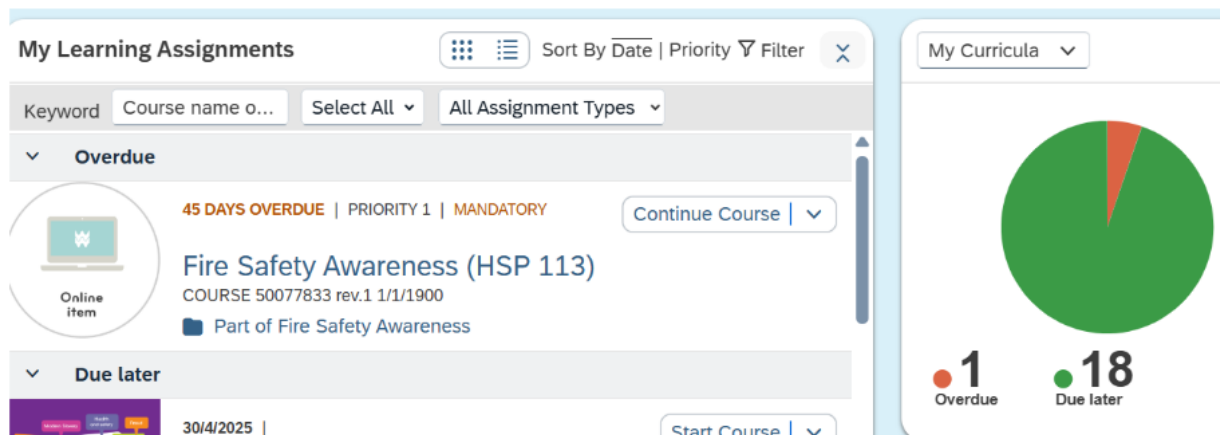
[Asbestos Non Licensed Removal](#)

[Multiskilling Development Phase - Mechanical to Maintenance Technician](#)

[Plant - Mobile Tower Scaffold](#)

[Emergency First Aid at Work - EFAW \(HSP 505\)](#)

Figure 4 - Mandatory Training Required for a Maintenance Technician



There are also options to advance in other trainings to develop such as becoming a first aider or fire marshal, each is optional however basic fire aid and fire safety awareness is mandatory. Many of the training provided go over the policies required and the safety documents set out such as risk assessment and method statements.

Figure 5 – Fire Safety Awareness

As I required electrical isolation of the pump I liaised with the onsite electrician. Onsite qualified electricians isolate the power supply to any mechanical item that requires maintenance or work to be carried out, this is very important to work safely. The electrician confirmed isolation and I locked off mechanically. The electrician supplied a certificate of isolation and job card before handover. I received a permit to work form to cover all aspects of health and safety and follow work procedures.

I attached my own locks to guarantee no interference with the equipment whilst I was working on it.



Figure 6 – Welsh Water Isolation Procedure



Figure 7 - TATA Steel Isolation



Figure 8 - Blackline Safety Device (blacklinesafety, n.d.)



Wellbeing Resources

We have access to many sources of support, including our [EAP](#) and [Wellbeing Champions](#), please see our Source page [here](#) for more details.



Figure 9 - Wellbeing Resources