

# METRO ROD

## Unveiling Pollution Awareness in the Manufacturing Industry

June 2022





## Introduction

**Since Pollution Prevention Guidelines (PPG) were withdrawn in 2015, businesses in the UK have been required to comply with the Environment Agency's standard Pollution Prevention for Businesses advice.**

The guidance is promoted as best practice for organisations of any shape, size and sector. However, there is no targeted advice for the manufacturing sector, which is more prone to discharging trade effluent – liquid waste generated from industrial or trade processes – into the sewer network. As such, the guidance has faced criticism for putting responsibility on businesses to produce their own rules and procedures to protect the environment.

**Now, new research has revealed that within manufacturing, there is a disconnect between the guidance and actual practice which may be putting the environment at risk.**

In 2022, Metro Rod undertook research with a cross section of people working at management level in manufacturing businesses across the UK, to determine how informed the industry is of the role it plays in protecting the environment, and what action is needed to make improvements.

Respondents were split into two groups: Group 1 consisted of procurement,

maintenance, facilities, building and site managers, while Group 2 consisted of SHEQ, compliance and engineering managers. Broadly speaking, Group 1 was made up of roles involved in the buying of facilities management and environmental services within the manufacturing industry, while Group 2 was made up of roles involved in environmental or health and safety within a manufacturing business.

The research found almost two thirds (62%) are unaware of the steps they should be taking to remedy pollution, with only 15% of respondents aware of all the individual guidelines their business is required to comply with. Additionally, the data shows that several manufacturing sites across the UK are without some of the key processes required to minimise their impact on the environment.

**Only 15%**

**Aware of compliance requirements.**

Though there are serious legal implications for businesses found not to be complying with their environmental obligations, knowledge of this is minimal. As part of the research, over 75% of respondents were not aware of the serious implications they would be subject to if their business was found to be in breach of environmental legislation, this could include **both** an unlimited fine and a criminal offence with potential for imprisonment.

Aside from legal punishment, any business in this position could face a big impact to their reputation and is ultimately contributing to environmental issues.

**In this report, we delve into the findings of the research, providing an overview of the manufacturing sector's landscape when it comes to the environment and our collective responsibilities. We also provide advice on how the sector can improve in its current position, arming businesses with the knowledge they need to avoid punishment and implement processes to prevent pollution and drive cost savings.**

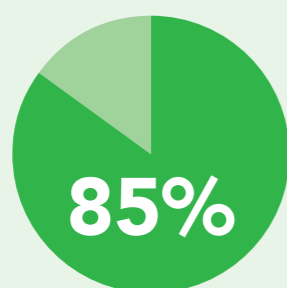




## Part 1: Manufacturing and environmental responsibility - Today's landscape

Although nine out of ten respondents (91%) said pollution prevention is important to their business, 85% are currently concerned that their company might one day be subject to pollution related penalties, suggesting there is currently very little knowledge of what the manufacturing sector needs to do to avoid risk of ramifications.

**85% of manufacturing businesses are concerned that their company might one day be subject to pollution related penalties.**



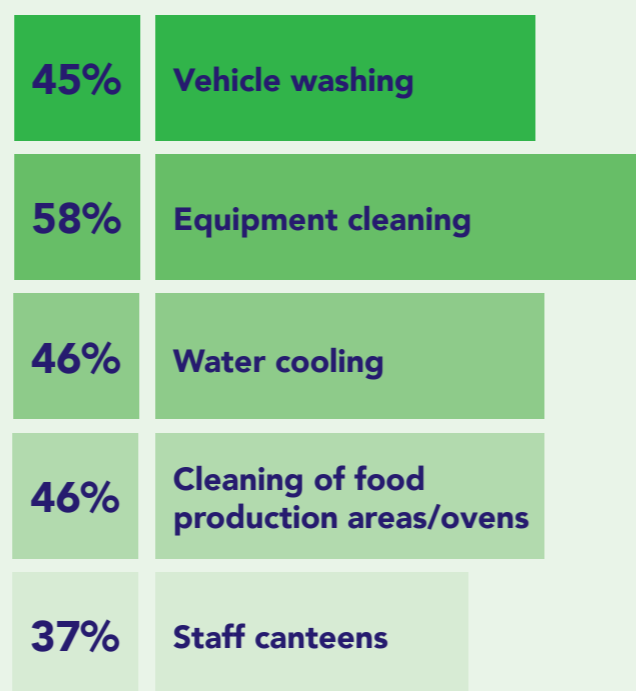
Exploring the specific responsibilities manufacturing businesses must comply with as part of the guidance from the Environment Agency, two fifths (41%) are unaware they are responsible for the correct disposal of hazardous substances; 35% are unaware they are responsible for the correct disposal of commercial waste and recycling; and two fifths (40%) are unaware they're responsible for preventing pollution.

Furthermore, almost three fifths of respondents (58%) are unaware there is an unlimited fine for any business found to be in breach of environmental legislation, and just over half (53%) are unaware that such activity is a criminal offence with potential for imprisonment. The research also uncovered a lack of

awareness of how specific manufacturing processes impact the environment. In four out of five instances, less than half of respondents correctly identified that certain every day practices produce contaminated water.

### Which, if any, of the following activities produce contaminated water?

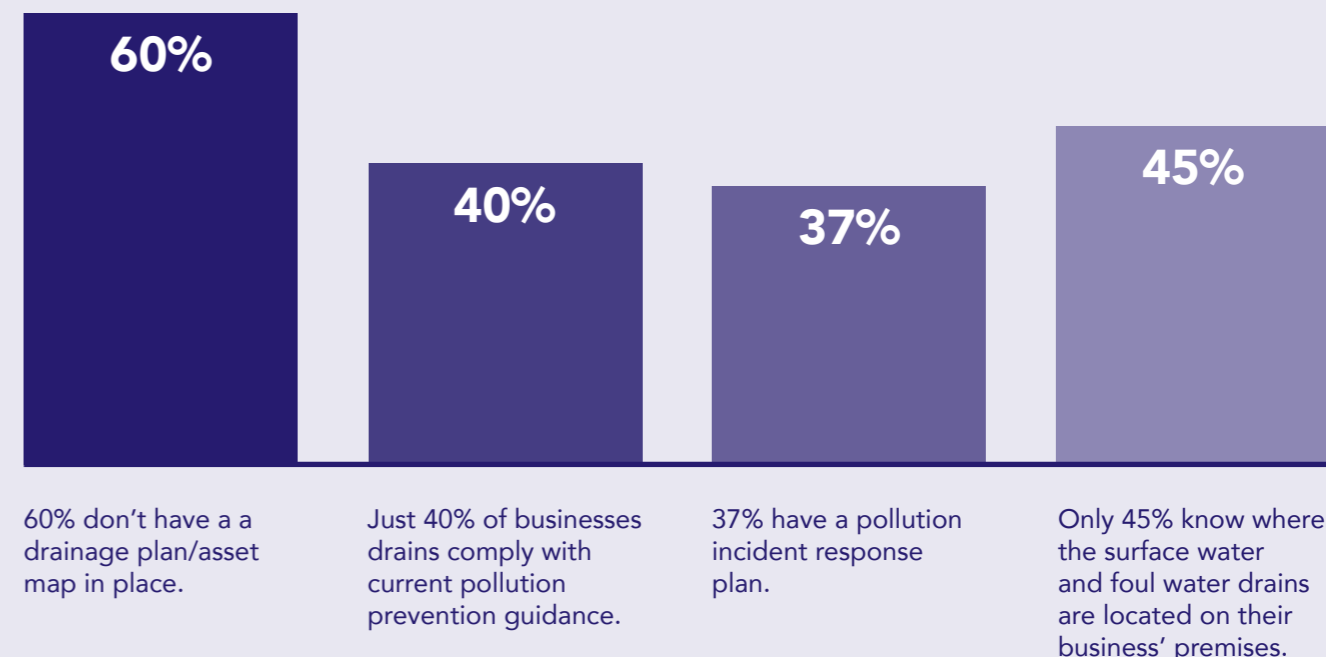
% of respondents identified



Only one in ten respondents correctly identified that all the activities presented produce contaminated water. Exploring this further, there is a greater knowledge amongst respondents in Group 1 (15%) than in Group 2 (5%)

## The Environment Agency's pollution prevention guidance and manufacturing businesses

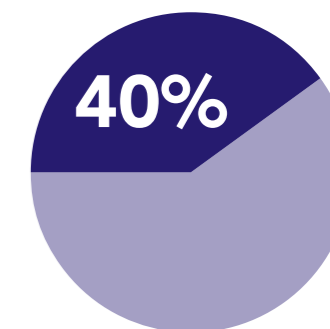
### Across UK manufacturing businesses:



Correct Use of Drains is one of seven chapters in the Environment Agency's pollution prevention for business guidance. It contains instructions such as, the need to make a drain plan detailing where drains are, what type of drains they are, their direction of flow and where they discharge into, as well as the need to mark manhole covers and install an oil separator.

However, our research found that only two in five manufacturing businesses (40%) have drain plans which comply with the guidance. Just 45% of businesses know where the surface water and foul water drains are located, and only 39% know how to access them.

**Only 40% of manufacturing businesses have drains which comply with current EA guidance.**



Furthermore, only 37% of business have a pollution incident response plan, outlining the actions they should take to reduce the level of pollution created by an accident on site, meaning that if an issue does arise, very few businesses are fully prepared to prevent the environment from unnecessary harm.

## Part 2: Minimising the industry's impact on the environment

**Only 50%** Are confident their contaminated water exits via a foul water drain

48%

**Almost half of respondents (48%) say they are fully aware of their business' environmental obligations...**

30%

**...but just under a third (30%) said they find it impossible to fully measure their company's impact on the environment.**

"There are certain procedures and solutions that should be in place at every manufacturing site in the UK to ensure businesses can efficiently and proactively minimise their impact on the environment, but according to our research these preventions aren't as commonplace as they should be – and this might be because advice doesn't state that they're compulsory.

**"According to our research, 53% of sites don't have an interceptor or grease trap and worryingly over half (54%) of companies don't have a drain/asset map. Furthermore, just half (50%) of all respondents could confidently say their contaminated water exits site via a foul water drain.**

"Collectively, these findings demonstrate the manufacturing industry might be contributing to the detrimental affect on the environment. Not having these solutions in place, or not having a thorough understanding of how water moves around and exits your site, does have a direct impact on the environment.

"Taking action doesn't have to be expensive or laborious, and in many cases, undertaking some processes just once or twice a year will provide you with enough information about your site to ensure it is functioning efficiently. Plus, it can actually save your business money – regular maintenance reduces costly emergency call outs, prevents operational downtime and will identify the actions you need to take to avoid the risk of fines.

**"Most important of all is to work with a drainage expert that can advise on what needs to be implemented at your business to protect both your organisation and the environment from risk."**

53%

**53% of manufacturing sites don't have an interceptor**

53%

**53% of manufacturing sites don't have a grease trap**

54%

**54% of manufacturing sites don't have an asset map.**

When it comes to minimising impact on the environment, prevention is better than cure – especially for manufacturing companies who simply cannot avoid the need to undertake processes which result in contaminated water and trade effluent. Here, our drain expert and senior technical support manager Chris Nelson provides advice on the steps manufacturing companies can take to mitigate environmental harm through planned, preventative maintenance of drainage systems. And, importantly, advises on the routine maintenance which, if implemented, could save manufacturing companies hard earned money by reducing emergency call out fees and downtime.





## Part 3: How can your business minimise pollution?

**For your site to be as compliant as possible and prevent disruption, it is vital to understand the drains condition, layout and implement regular planned maintenance.**



### Asset and Drain Mapping

Asset maps provide accurate drawings on the drain location beneath your site, their size, depth and directional flow. The map is cross referenced with an ordnance survey map and uses GPS technology to provide a very accurate indication of the latitude and longitude of each drain within a 2cm margin. Should a flood or chemical spill happen on site, an asset plan can be drawn upon to understand if, for example, an auto shut off valve is in place to prevent any effluent from entering the drains.



### CCTV Drain Survey

A CCTV survey will give a detailed drain condition report containing drain diameter, drain material, drain duty and any defects contained within the system. Used together, a CCTV drain survey and asset mapping provide a total site impression of drain condition and location. This report is invaluable in developing a waste management plan and identifying any areas that require maintenance or repair.



### High Pressure Water Jetting

As part of our research, under half (47%) regularly clean the drains using high-pressure water jetting. Water jetting is essential to clear build-up in the drains and prevent blockages. If you're concerned about the condition of your drains, it's a good idea to have them jetted and 12 months later, have a camera inspection. If there has been a lot of build-up, adjust the maintenance process to every six months; if there is nothing, adjust it to every two years.



### Empty Your Interceptor

The Environment Agency recommends interceptors should be emptied every six months, though this isn't compulsory guidance. You may be safe to empty interceptors at a lesser frequency, but remember that it is the responsibility of the your business to prevent pollution on site, so routine sampling is a good practice to adopt.

Not many people within a business have knowledge of the role an interceptor plays, and with manufacturing businesses often having a high turnover of staff, information on how they work best for your particular company can be lost. It's good practice to keep a record of important information about your interceptor – when it was last emptied and serviced, any specialist maintenance techniques and where it's located on your site so this is handy for everyone in the business to refer to.



### Empty Your Grease Trap

Grease traps should be emptied every one to three months - worryingly nearly two thirds (71%) aren't doing this. We found that, a quarter (24%) are emptying their grease traps every four to six months, and one in six (16%) are waiting more than ten months to conduct this process. If you don't empty a grease trap often enough, one of two things can happen; it will either block up with Fats, Oils and Grease (FOG) and your sinks won't drain properly, or it will become overwhelmed and grease will be discharged into the water course. If you're having to empty your grease trap more than once every three months, it's likely you need a new one.



### Empty Car Park Gullies

Car park gullies play a key role in preventing flooding of car parks but their maintenance is often overlooked, and they're usually only given attention when they block – at which point it's too late. We always recommend making car park gullies part of the wider pre-planned maintenance (PPM) schedule. Every site will be different so it's important to understand your baseline requirement, it might be every six or 12 months. It's best to be smart about emptying gullies rather than be caught out in bad weather.




## Pump Station Servicing

Pump stations tend to be found in low lying areas, where the drains have run out of sufficient gradient for gravity to have an effect and work by pumping effluent upwards to the main sewer line. If a water authority's pump station overflows, it's classed as a pollution incident but the same isn't said for pump stations in place on manufacturing sites. More than 75% of respondents in our research say they don't get their pump stations serviced at least once every six months. If they're not maintained, and an issue does arise, it can be expensive and cause water to overflow resulting in full site closure. Preventing this through regular servicing is essential.

## Pipework Descaling

This is usually a bigger problem in hard water areas than in soft, but often scale can be linked back to the use of urinals. This type of job takes place further upstream than typical drain work, and is more closely linked to plumbing pipework, but if not monitored can go on to affect your drains. Plus, you'll experience problems with smells, blockages and flooding if the scale becomes a serious issue. We suggest conducting descaling every six months as part of a PPM schedule - currently only 27% of respondents conduct six monthly descaling.



**Though some of the findings in our research make for stark reading, it's not too late to take action.**

The data shows that more can – and should – be done within the manufacturing sector to ensure businesses are taking the necessary steps to reduce their impact on the environment.

What's vital now, is that the industry works together to take greater, collective responsibility. Programmes of work and industry partnerships will help improve knowledge of how drainage networks at manufacturing sites contribute to the wider environmental challenges we all face. Meanwhile, basic and regular maintenance solutions will help counteract the impact and instead create an industry that is more sustainable and proactive in driving change. Our pledge as drainage experts is to work together with manufacturing businesses to implement services and solutions which simultaneously ensure compliance, minimising the risk of fine or imprisonment; prevent operational disruption and maintain your company's reputation; and, first and foremost,

protect the environment we all love and care for, to create a better future for us all.

Metro Rod is trusted by some of the UK's leading manufacturers to deliver a one-stop shop of cost effective drain mapping, pre-planned maintenance including interceptor management, grease trap maintenance and pump station servicing to help prevent risk and disruption to businesses dealing with trade effluent and pollution.

**Our national team of expertly trained engineers are available 24/7/365, operating from over 50 depots which are within one hour's travel time of 85% of commercial properties in the UK. That means a local engineer is always on your doorstep.**

**For advice on pollution prevention measures, contact Metro Rod today on 0800 66 88 00.**







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Contact us for more information

 0800 66 88 00

 [metrorod.co.uk](http://metrorod.co.uk)

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