

# PMC

## Pipelines Maintenance Centre



# About Us



**PMC are changing - we now work as a Principal Contractor**

PMC has developed in-house expertise supported by key supply chain partners in delivering multi-skilled (mechanical and civil) projects as Principal Contractor.

A recent example of this is Harwardon in North Wales where we dismantled the site. This involved removing the connecting pipe from the transmission pipeline, capping off the valve below ground, and the demolition of all the above ground pipe work.

**Extensive design and innovation capability**

PMC has established a number of Design Contractors on framework agreements which are regularly engaged to undertake G17 and G35 approved and appraised designs associated with repair and replacement works.

PMC has also established a number of G19 standard designs which can be used in many instances to reduce the design cycle.

## Design examples

- Vent and sealant line epoxy repair clamps. This is a repair system that allows the corroded lines to be repaired subject to P20 inspection results. This is approved under G19.
- Sealant point epoxy support. This is a process that installs an epoxy support base around a below ground sealant point adaption to provide support for reinstatement. Approved under G19.
- Drilling and tapping of blank flanges. G19 approved to allow safety modifications to blank flanges in line with TR17.

## Our accreditations:



# About Us



## Our Background

Established in 1975, PMC began as the emergency response unit to National Grid's country-wide network of gas pipelines.

PMC has grown and emerged as the UK's leading authority on emergency and planned solutions in the field of pipeline intervention.

## Expertise

PMC's expertise span the complete range of materials and pressures used in Gas Transmission and Distribution.

## Country-Wide Reach

Our team of highly trained engineers and technicians work from seven strategic country-wide sites to ensure our customers benefit from enhanced national coverage and rapid response in the case of an emergency.

## Innovation

PMC is a champion of innovation and is at the forefront of technical advancements. This helps us to deliver continued improvements in the quality and cost of our services.

## Safety

Above everything, our commitment to Health and Safety is paramount. We are exceptionally proud of our record within the industry and boast a world class safety record.

## Awards

We are also an award-winning team and have won prestigious awards including the gold Achievement ROSPA Award in 2015. PMC was also recognised by the British Safety Council in 2015.

## Key contacts:

### PMC Manager:

John Dowson

[john.dowson@nationalgrid.com](mailto:john.dowson@nationalgrid.com)

# Planned pipeline works



**At Pipelines Maintenance Centre, pipeline operation services are at the heart of what we do.**

Our team is unrivalled in its skills, experience, use of specialist equipment, reliability and customer service.

Works are completed to the highest standards with safety being a paramount concern at all times. We offer an extensive range of pipeline services, covering the full range of pipeline materials at diameters up to 48" and pressures of up to 100 Bar.

Our pipeline services include:

- Cold Cutting
- Window Cutting
- Branch Saddles
- Swagelining ®
- General PE mains work
- PLIDCO® repair clamps
- Pipe end preparation and transitioning
- Pipeline Inspection (P11)
- PSSR inspections
- Pipeline welding including inspection services

We also offer bespoke pipeline solutions and have the knowledge and experience to formulate a solution to the most complex pipeline challenges.

## Key contacts:

### Commercial Manager:

David Rodwell  
david.rodwell@nationalgrid.com

# Planned pipeline works



## Valve and Actuator Maintenance

Valves can usually be repaired without decommissioning the pipeline. We have many years' experience of developing solutions to valve operation issues across all the main valve types including ball, gate and plug valves.

Our expert team have developed specialist repair techniques that often eliminate the need for expensive valve replacements.

### Our expertise include:

- Flushing and sealing techniques using existing valve connections.
- Sealant-vent plug adaption carried out where blind plugs are fitted.
- Vent-sealant line replacement.
- Repair and replacement of actuators and extension tubes.
- Stem seal leak repairs.
- Re-validation and pressure testing are both undertaken on site.

We utilise an array of specialist equipment which has been designed, trialled and proven within our own workshops.

## Key contacts:

### PMC South Operations Manager:

Neil Clark  
neil.clark@nationalgrid.com

# Recompression, under pressure drilling, flowstopping



## Recompression

PMC has a fleet of mobile gas compressors.

Utilising these, we connect to isolated pressure systems and transfer the gas into the live section of the pipeline.

Using this technique ensures that the environmental and commercial impact of vented gas can be reduced. This is done by transferring the gas in the isolated section to another location by reducing the pressure from anywhere as high as 100 Bar down to as low as 7 Bar. This technique can be used when the live section is operating at full pressure.

## Under pressure drilling

We can provide under pressure drilling for all diameters to the same pressure, diameter and material limits up to 100 Bar and 48" diameter.

## Flowstopping

PMC provide a complete flowstopping service for planned and emergency operations on a full range of pressures, diameters and pipeline materials.

These include:

- Steel, cast and ductile iron and PE systems
- All pressure ranges up to 100 Bar
- Pipelines up to 48" diameter

We utilise various stopple techniques such as:

- Squeeze-off technique
- IRIS technology
- Bag stop technology

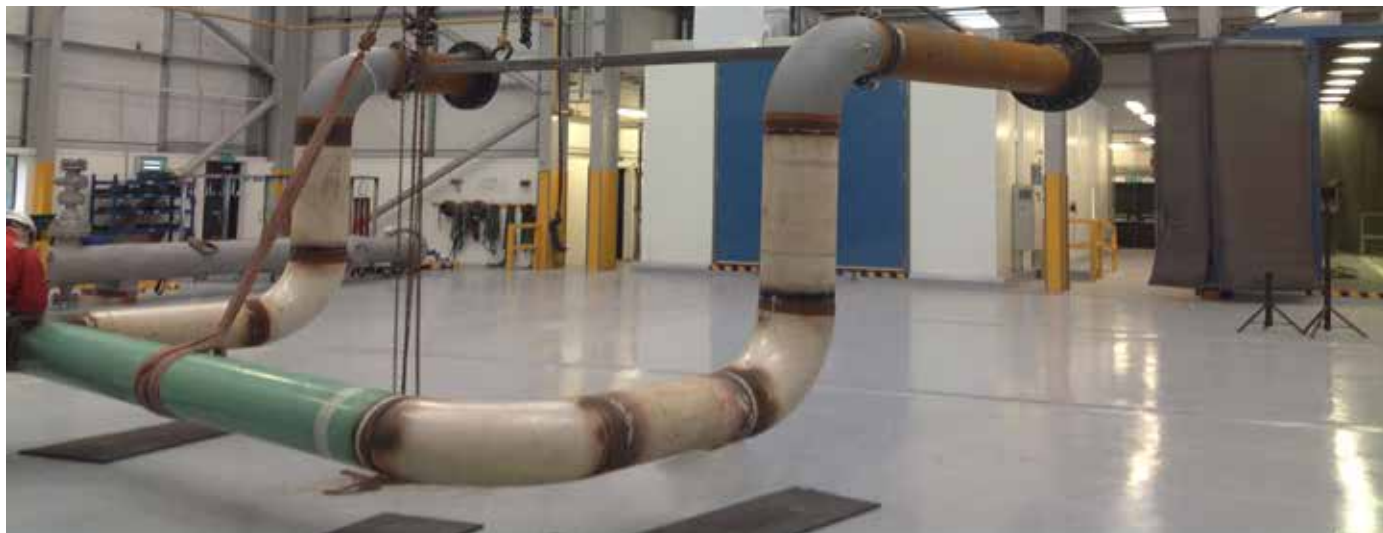
## Key contacts:

### PMC North Operations Manager:

Mick Farmer

mick.farmer@nationalgrid.com

# Painting and blasting



## At our Ambergate site, we have a state-of-the-art Paint and Blast facility.

We can provide painting, coating and blasting services across a full array of items from the smallest valves to the largest pig traps.

We can accommodate a wide range of items:

- Small items such as 1" valves; and
- Large items such as 54" closure pig traps.

The paint and blast booths can accommodate lengths of up to 12m and items as tall as 3.6m.

We also have air assistance drying facilities.

With safety being paramount, we provide a 25-tonne overhead crane which is able to lift items directly from the bed of a lorry, facilitating ease of movement and eliminating manual handling operations.

Work is completed efficiently and to the highest standards including National Grid specifications such as T/SP/PA/10 and T/SP/CW/5.

Upon request, our friendly and helpful team can discuss any requirements you may have.

In short, the PMC Paint and Blast facility is a one-stop-shop for all of your painting and blasting needs.

## Visit our site

To arrange a visit to our site or to request a quotation please contact a member of our Commercial Team.

## Key contacts:

### PMC Ambergate Operations Manager:

Kevin Paine  
kevin.paine@nationalgrid.com

# Non-destructive testing, welding and inspection services



## Pipeline Inspections

PMC offer a wide range of pipeline inspection services which include:

- Radiography
- Magnetic particle inspection
- Dye Penetrant
- Ultrasonic
- Coating/painting inspection

We offer these services throughout the whole of the UK.

## Radiography

PMC have the capability to offer both fixed and mobile radiography inspections.

Our site in Ambergate incorporates a purpose built radiography facility.

Our mobile radiography facility enables us to carry out radiography services throughout the UK. We can visit your site allowing works to commence throughout the inspection process.

We also offer a fully supported QA service.

## Fabrication and Welding

PMC offer a full range of welding and pipe work fabrications.

With a team of highly skilled coded welders we adhere to the highest standards including National Grid specifications T/SP/P/8 and T/SP/P/9.

We weld and fabricate to BS 4515-1:2009, API 1104 and ASME 9 standards.

These standards are equally applicable to varying steel pipeline diameters, wall thicknesses and pressure ranges.

PMC also construct intricate steel pipework fabrications as well as carrying out repairs to existing pipelines and plant.

Welding, inspection and non-destructive testing services are all available at our Ambergate site.

## Key contacts:

### Business Development Lead:

Tom White

thomas.white1@nationalgrid.com



# In-line inspection



## Tracking and Monitoring

We provide a specialist tracking service for monitoring the pigs' progress along the pipeline route.

Our experienced technicians are able to pinpoint the pig's exact location within the pipeline and provide a suite of information that can confirm the pig's velocity, the location of the pig and whether the pig is moving or static. This information is provided alongside time-specific data.

## Planning and Remedial Action

PMC's dedicated team has vast knowledge and experience in the planning of pigging operations and can provide a consultancy service relating to all aspects of the inspection process.

We can also offer interpretation and explanations on the cause of damage to the individual pigs and their components and also provide advice on any necessary remedial action.

## Pigging Equipment

PMC hold a range of pigs from 8" up to 48".

We also supply launch and receive trolleys to assist in the insertion and removal of the pigs into and out of the pig trap.

We provide flanged potable pig traps from 8" up to 36" and, if required, we can provide the associated bridle pipework.

PMC can provide transmitter and receiver equipment utilised to locate a preparatory pig in a pipeline or confirm its passage at a specific location.

## Key contacts:

**Commercial Specialist South:**  
Andy Collinson  
andy.collinson@nationalgrid.com

# Epoxy sleeve and tee repair



## Epoxy Sleeve Repair Solutions

Our specially trained technicians can carry out an on-site assessment of pipeline defects.

Information is then sent back to a mechanical defect assessor who will calculate the severity of the damage and make recommendations.

We offer permanent epoxy sleeve repairs.

These types of repairs are suitable for non-leaking pipeline defects such as dents, gouges, cracks, corrosion or a combination of these.

Epoxy grouted sleeve repair methods have been approved for many different types of material.

Designed to include long and short radius bends, incorporate branch fittings and methods of reducing vibration, they also provide pipeline protection.

# Aerial surveys and line walking



There is a legal requirement to survey gas pipelines every 28 days in accordance with IGE/TD/1. T/PR/MAINT5 prescribes that gas pipelines above 7 Bar have to be surveyed every 14 days.

PMC conducts aerial surveys to detect any activity on the ground that may be a threat to the pipeline. PMC holds a fleet of helicopters along with a crew of pilots to plan and deliver the schedule of surveys. Pipelines are patrolled at 185 km/h and 500 feet. Observers report on everything seen from the flights and utilise state-of-the-art technology to record this.

## Line Walking

Line walking compliments the requirement to survey pipelines via an aerial survey. We carry out a fully-managed line walking service covering all technical, policy, legal and operational requirements. iPads are utilised to record information in the field and provide auto-uploads and to take and share photos.

We plan the routes and stopping points and any materials required for repair are prepared on-site. If any faults are found we record the depth of the main, a fault description and road crossing details.

Minor repairs are also completed during the linewalk (e.g stickers, faceplates, posts etc). Work orders are created and major repairs are carried out and closed off.

## UAV “Drone” inspections and surveys

PMC has just invested in a state-of-the-art video drone to access areas that are difficult for our team to view on foot, such as river crossings, AGI and compressor sites.

## Key contacts:

### Commercial Specialist Midlands:

Neil Hobbs  
neil.hobbs@nationalgrid.com

# Emergency Pipeline Intervention ("CEME" Scheme)



## **PMC operate an emergency response service for a range of pipeline operators.**

Customers include gas transmission and distribution network owners, power stations and oil pipelines.

In an emergency situation, we are the team you can trust to be on call with our wealth of expertise, strategically placed engineers and technicians and access to a vast array of equipment.

## **Emergency Freephone number**

Customers are provided with a unique Freephone number which is manned by our engineers 24 hours a day, 7 days a week, 365 days a year.

## **Part of National Grid**

As PMC are part of National Grid, the UK's largest utility company, we bring our experience of owning and operating our own gas distribution and transmission networks.

## **Reach**

Within PMC, our breadth of capability is vast and we retain the expertise of over 100 experienced technicians, inspectors and welders who are based across the country and are ready to assist with emergency incidents.

## **Key contacts:**

**CEME Emergency number:**  
0800 018 5500

# Emergency Pipeline Intervention ("CEME" Scheme)



## Benefits of Membership

Customers benefit from our aggregated stock and access is allowed to all of the materials and specialist equipment we hold across our 7 strategically-placed depots.

All our equipment is pre-tested and stock managed so that we can provide rapid response in the event of an emergency.

We hold a vast amount of stock including:

- Pre-tested pipe stock
- Transition pieces
- Bends
- High pressure sealing elements
- Split tees
- Epoxy sleeves
- PLIDCO® clamps
- Large diameter flow stop epoxy tees
- Epoxy tee branch seals

Access to our specialist equipment includes:

- Tapping machines
- Stopple equipment
- Recompression units
- IRIS stops
- Squeeze-off equipment

Our equipment and materials can be utilised over the full range of pressures.

## Key contacts:

**CEME Emergency number:**  
0800 018 5500

# CEME - Emergency Repair

## How we assist in an emergency - Wales and West call out

**Location:** Glynoch Farm, Clydach, South Wales



**Pipe:** 450mm O.D / 9.52mm w.t / 41 Bar

### The emergency:

A gas leak was reported by a member of the public. Pinhole corrosion was suspected. PMC were consulted and the stand-by team were dispatched with a PLIDCO clamp.

After minimal excavation pinhole corrosion was ruled out. Investigations suggested that the pipeline was under compression resulting in the deformation of the pipe in the HAZ and a through wall crack.



### The solution:

The pressure was reduced and strain gauges fitted to monitor the pipeline movement during decommissioning and excavation work. PMC isolated the gas and cut out 12 meters of the damaged pipe.

PMC installed 6" flowstop tees at Felindre and Pontardawe and isolated the gas. The PMC Recompression fleet was used to bring gas pressure down prior to venting.

### Successes:

PMC created and qualified a 6G / H-L045 welding procedure.

The pipeline went into compression during the cutting and our experience allowed us to adapt a solution.

Team working - different teams had to work together effectively: Control centre, Wales and West, PMC Hichin, PMC Cardiff, PMC Ambergate and Solus testing.



# CEME - Emergency Repair

## How we assist in an emergency - SGN call out

**Location:** Southampton Docks

**Date:** May 2015



### The Emergency:

During a non-gas related third party construction project at Southampton docks, a contractor struck a 15" medium pressure cast iron main. The contractor believed the main was no longer operational and proceeded to strike it with his digger bucket causing a catastrophic failure.



### The solution:

It was believed that both sides of the damaged section would require flowstopping and PMC mobilised teams from Hitchin and Cardiff with two sets of flowstop equipment.

On arrival at site, it was clear that gas was leaking from the main. The pressure had already been reduced to around 200 - 300mBar via an upstream regulator. Downstream, PMC installed a safety bag and vent in the main to ensure a block and bleed against the closed valve.

Upstream, PMC drilled the pipeline and inserted an IRIS flowstop, along with a safety bag and vent.

### Successes:

Once the section was isolated and purged, PMC provided the cold cuts for the removal of the damaged pipe, PMC were on-site through the operation maintaining the flowstop.

Our teams worked through the night (during a bank holiday weekend) to ensure that customers were not left without gas. The main was recommissioned in the early hours of the following morning.





## Offices

1

### HITCHIN

Cadwell Lane, Hitchin, Hertfordshire, SG4 0SL  
T: 01462 444 638

2

### FEATHERSTONE

Unit 2, Innovation Square, Featherstone, WF7 6NX  
T: 0151 331 0712

3

### GLASGOW

Moorpark Centre, 60 Dava Street, Glasgow, G51 2BQ  
T: 0141 445 0753

4

### KNOWSLEY

Unit 3, Alchemy Way, Platinum Court, Knowsley, L33 7XN  
T: 0151 331 0712

5

### AMBERGATE

Ripley Road, Ambergate, Derbyshire, DE56 2FZ  
T: 01773 854 400

6

### CARDIFF

Unit H1 Capital Business Park, Parkway, Wentloog, Cardiff, CF3 2PU  
T: 02920 778 363

7

### BIRMINGHAM

Unit 14 Network Park, Duddeston Mill Road, Saltley, Birmingham, B8 1AU  
T: 0121 380 8640