From: 28 February 2024 15:01:06

To: Planning Reps

Cc: Subject:

SGN HP pipeline enquiry response TPES-S0-63471

Attachments: SGN-HP-Response-Letter-TPES-SO-63471.pdf; 9cc8216132ec5a2f0a3d.pdf; SW2.pdf

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Hello,

Thank you for your recent enquiry, please find attached our response regarding our High Pressure pipelines.

Please note, we have NOT posted a physical copy of the response to you, as you may have previously received for historic enquiries. If you require printed copies for field operatives please arrange to print these from the attached PDFs.

Kind Regards,

Southern Maintenance Admin Support

SGN

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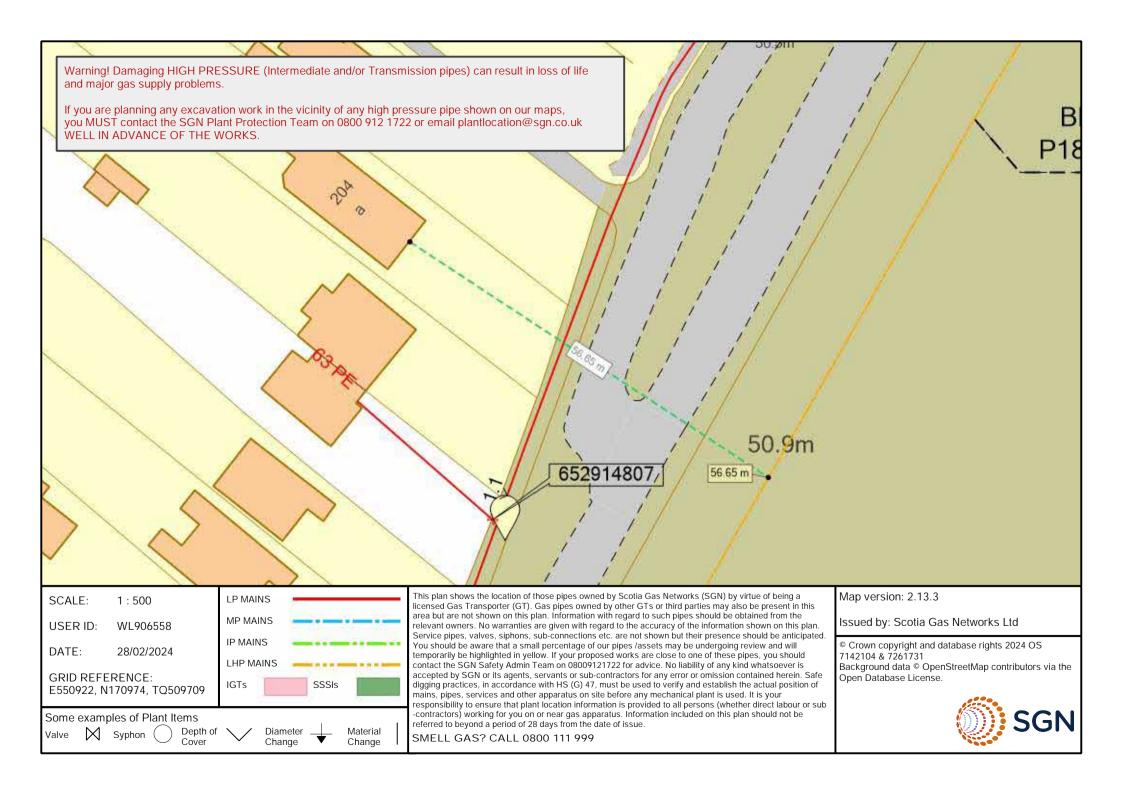
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Scotland Gas Networks plc (company registration number SC264065) is registered in Scotland and has its registered office address at Axis House, 5 Lonehead Drive, Newbridge, Edinburgh EH28 8TG





Our Reference: TPES/63471

Dartford Borough Council Civic Centre, Home Gardens Dartford DA1 1DR St Marys Cray 2 Leesons Hill Orpington BR5 2TN

28 February 2024

Re: Dartford Borough Council(Rosewood 224B Birchwood Road Wilmington Kent DA2 7HA) - Planning application/Extension - Closest Address: Rosewood 224B Birchwood Road Wilmington Kent DA2 7HA

LSBUD Reference: None

Dear Samantha Mitchell,

Thank you for your enquiry, there is a high pressure pipeline in the vicinity of your works. Your proposals would require the exact location of this pipeline and other SGN assets to be located before any work commences, either by electronic detection or by hand excavated trial holes as specified in the attached SW/2 document. These works must be supervised by an SGN representative, please contact Kyle Stevens on 07960479287 / kyle.stevens@sgn.co.uk to arrange a pre-works site visit and any future supervision. Although we will endeavour to respond to your enquiry as soon as possible, due to the current circumstances regarding COVID-19, there may be a small delay in response time from our field staff. We would like to reiterate that no works should be carried out within the vicinity of a high pressure pipeline until consultation with an SGN representative has occurred. We thank you for your patience at this time

Please note that no mechanical excavations are permitted within 3m of the pipeline at any time.

This pipeline is registered with the Health and Safety Executive as a Major Accident Hazard Pipeline.

SGN High Pressure Gas Pipelines in the vicinity of your works			
Pipeline Number	Pressure Regime	Building Proximity Distance (Zone 1)	
GM11	HP	3.0	
This table does	not include SGN's low medium	and intermediate pressure assets, which may be in the vicinity.	

Building Proximity Distance

The building proximity distance (Zone 1) for the pipeline is shown in the table above for all our high pressure gas pipelines in the vicinity of your works. This should not however be confused with the HSE consultation zones 2 & 3 which will be considerably greater, further guidance of the requirements can be found in HSE Document: PADHI: HSE's Land Use Planning Methodology. Zone 1 is a safety factor with reference to habitable buildings as recommended by IGE TD/1. It is calculated from the diameter, material, wall thickness and pressure of the particular pipeline. Under Pipeline Safety Regulations 1996 this distance is declared to the HSE. Any intrusion within this safety zone will not be taken lightly and any intention to proceed should be accompanied by a risk assessment or provision of other supporting evidence, especially in the event of any legal proceedings at a later date.

Vehicle Crossing

Vehicle crossings over the pipeline must be kept to a minimum and must cross at 90 degrees. The crossing will require agreement with SGN and may require design and calculations, as evidence to prove there is minimal added stress to the pipeline. Method statements must be agreed before works commence.

The pipeline is of prime importance to the gas supplies of this area. It is essential that you comply with the restrictions detailed below and in the document SGN/WI/SW/2 in order to protect our plant and equipment and for the safety of your own operatives. A SGN representative must be contacted before any works commence. Further guidance / restrictions are detailed below:

- 1. No mechanical excavation is allowed within 3 metres either side of pipeline.
- 2. No plant or storage of equipment shall be made within any easement strip.
- 3. If any metallic pipes or cables are being laid in proximity to gas pipelines then interference testing will be required, the cost of which to be borne by the promoter of the works. A minimum clearance of 600mm is required.
- 4. All precautions stated in publication SGN/WI/SW/2 (Safe Working in the Vicinity of High Pressure Gas Pipelines) shall be fully complied with in all respects. Acceptance of SGN/WI/SW/2 shall be acknowledged by the responsible site person signing and returning the form Appendix A (back page) to the SGN representative contacted in (7).
- 5. No thrust boring shall take place within 3 meters of the pipeline.
- 6. All planting within the easement strip should comply with 'Notes for Guidance on Tree Proximity'.

- 7. Before commencing work on site you must contact our Pipeline Maintenance Section on the number above at least seven days before work commences. A Southern Gas Networks representative will then contact you to arrange to visit site. Details of working near to high-pressure gas pipelines can then be discussed.
- 8. Pipeline sections that are planned and agreed by SGN to be permanently covered (i.e. by road surface) will require a coating survey. SGN will repair any indicated coating defects free of charge. The survey costs will be borne by the promoter of the works. Prior to any surface cover cathodic protection coupons and reference cells will require installation at no cost to SGN.
- 9. This pipeline is cathodically protected and as such has test cables located in test posts, were these to be lost through this work we would look to you for remedial action at no cost to SGN.
- 10. Intrusive construction methods will require an agreed method statement prior to work starting.
- 11. Any extended period of SGN site supervision may incur charges to you. These will be charged based on visiting times, materials and occurrences. You will be informed when these come into effect and be invoiced direct.
- 12. Any piling or boreholes within 15 metres of the pipeline may require vibration monitoring. No piling or boreholing must take place within 3 metres of the pipeline.

Please ensure these conditions, together with any relevant drawings are forwarded for use by the construction personnel of your works.

Please note that further restrictions on activities may need to be imposed as a result of a site inspection.

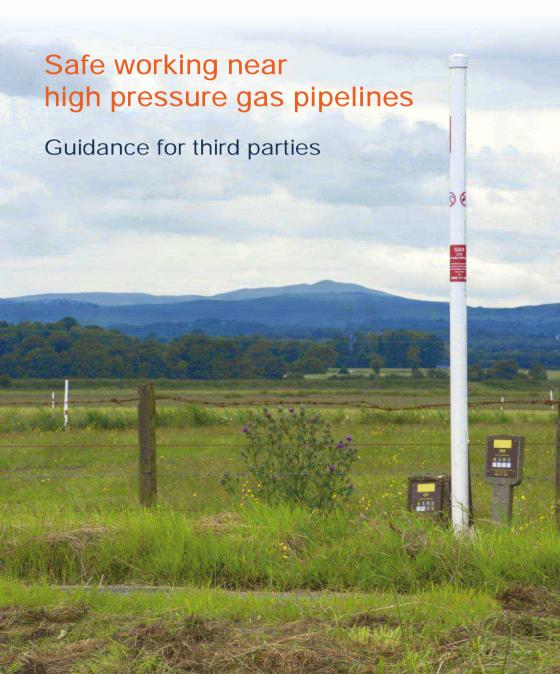
For any further information please contact SGN on the details above.

Yours Sincerely,

Team Manager

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Legal duties

Pipeline Safety Regulations 1996, regulation 15 states:

'No person shall cause such damage to a pipeline as may give rise to a danger to persons.'

The Health and Safety Executive (HSE) will investigate any incident of damage to a high pressure pipeline. High pressure gas pipelines are defined as Major Accident Hazard Pipelines and it is a criminal offence to damage them.

The HSE guidance document HSG47 'Avoiding danger from underground services' highlights the dangers of working near underground services. The document also places a requirement on all contractors to contact the relevant utility and service providers when work is planned in the vicinity and to adhere to the specific requirement of the pipeline operator when working near pipelines.

Damage to pipelines can result in fatal or severe injury. Adhering to the specific guidance provided by SGN and liaising with SGN's representatives throughout will ensure safe working near pipelines.

Application of SGN/WI/SW/2

Our procedure for safe working in the vicinity of high pressure pipelines is SGN/WI/SW/2, this procedure applies to all excavation work in the vicinity of our high pressure pipelines. The preferred method for excavating in the vicinity of high pressure pipelines is to hand dig. This is to protect all workers in the area from the consequences of any potential excavator strike and to ensure the continued integrity of the pipeline.

There are scenarios in which mechanical excavators can be permitted but approval to use such plant can only be given by one of our Authorising Engineers and is subject to a detailed site-specific risk assessment and method statement detailing each aspect of the works. For any mechanical excavator use in the vicinity of the pipeline, or for the use of any powered hand tools an SGN Permit to Work must be issued.

For any mechanical excavation in the hazard zones an SGN SW/2 Technician must be on site to monitor the works at all times. No mechanical excavation is permitted in the hazard zone (see page 4) without the SGN SW/2 Technician being present. Hand excavated trial holes must be completed to prove depth and location of the pipeline prior to any works commencing.

Hazard and danger zones

The hazard and danger zones are established and marked out on site by the SGN SW/2 Technician. These zones are established to protect the pipeline from any unintended damage. Encroaching on these zones can result in damage to a pipeline which can lead to fatal injury.



Figure 1. Cross section example hazard and danger zones

The SGN SW/2 Technician will explain these markings and zones to the controller of works (on site) to ensure they are understood prior to planning the works and confirm them to the Nominated Responsible Person/team leader on site before any work begins.

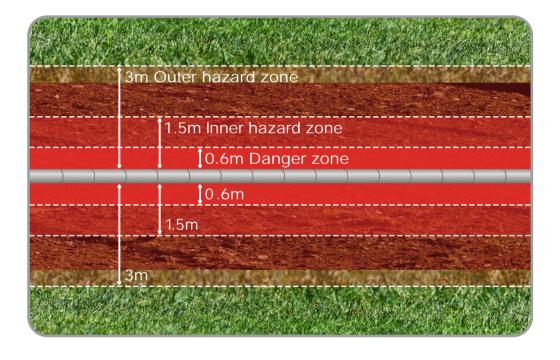


Figure 2. Aerial example of hazard and danger zones

Roles and responsibilities

Who's who and who's responsible for what:

SGN SW/2 Technician

· Controller of the works

Authorising Engineer

Nominated Responsible Person

SGN SW/2 Technician

The SGN SW/2 Technician is SGN's representative and primary point of contact on site for anyone planning work near Major Accident Hazard Pipelines, the SGN SW/2 Technician's responsibilities include:

- · liaising with those undertaking the works
- ensuring all pipeline records and plans have been obtained
- · locating and marking the pipeline
- · establishing the 'hazard zones' and 'danger zone'
- monitoring activities in the hazard and danger zones
- · stopping the work if the pipeline is at risk

The SGN SW/2 Technician must be on site to monitor works during any of the following activities:

- all works requiring a Permit to Work
- excavation of trial holes
- · top soil stripping
- use of mechanical excavators in the hazard zones
- use of powered hand tools in the inner hazard zone and danger zone
- use of vacuum excavators in the hazard and danger zones
- use of trenchless technologies in the hazard and danger zones

Authorising Engineer

- an Authorising Engineer is a highly trained and competent engineer, registered on SGN's Safe Control of Operations system, with authority to issue a Permit to Work for activities in proximity to high pressure assets
- reviews risk assessments and method statements for the planned works

Authorising Engineer cont.

- confirms the Nominated Responsible Person fully understands the method statement and Permit to Work
- issues Permit to Work to the Nominated Responsible Person on site
- cannot authorise mechanical excavation in the danger zone
- briefs the Nominated Responsible Person and SGN SW/2 Technician on the permitted methods of working
- must authorise any change to the method statement or Permit to Work

Controller of works

Representative from the principal contractor or main contractor with overall responsibility for the safe delivery of the planned works, the controller of works responsibilities include:

- providing the method statements to SGN for agreement for the planned works
- ensuring all operatives involved understand the method statements
- ensuring all operatives [including machine operators] are suitably competent and experienced for the roles they are carrying out
- ensuring suitable arrangements are in place for supervision and monitoring of the works (in addition to the role of the SGN SW/2 Technician), including works undertaken by sub-contractors
- nominating a suitable Nominated Responsible Person (if a Permit to Work is required)

Nominated Responsible Person

The Nominated Responsible Person is put forward as the representative of the third party, and approved by SGN, to receive the Permit to Work for the planned activities and with the following responsibilities:

- briefing all workers and machine operators on the safe working practices
- · must be on site at all times while work is carried out
- must be in direct control of the workers and machine operators
- must ensure the SGN Permit to Work and agreed method statement is complied with
- must ensure SGN's SW/2 procedure is complied with
- does not have any authority to deviate or change the agreed method of working

Fittings and standpipes

High pressure gas pipelines have various fittings and connection points which are particularly vulnerable to damage. These fittings protrude from the pipeline and mechanical excavators must not be used within a 1.5m radius of fittings and standpipes.

Fittings and standpipes must only be excavated by hand excavation. A Permit to Work is required if powered hand tools need to be used.

Hand dug trial holes must be undertaken to locate and confirm the position of fittings and standpipes if a mechanical excavator is to be used within the hazard zones. An SGN SW/2 Technician must be on site when trial holes are dug or when any excavation work is being undertaken near to fittings and standpipes, even if a Permit to Work has been issued.

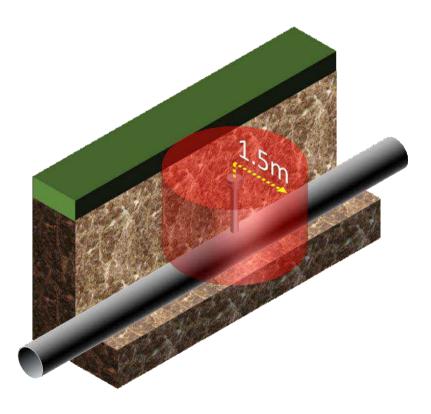


Figure 3. Minimum proximity to fittings

Permits to Work

A Permit to Work is an essential control measure for high risk activities. An SGN Permit to Work is required for the following activities:

- mechanical excavation inside the hazard zones including backfilling
- use of powered hand tools inside the inner hazard zone and danger zone, including vibro-tampers for backfilling
- use of vacuum excavators in the hazard and danger zones
- any 'trenchless techniques' within, through or under the hazard zones
- · any 'hot works' ie welding, cutting, burning within the easement
- · highways surface removal in the hazard and danger zones

A Permit to Work must be issued:

- on site where the activity will be undertaken
- by an SGN SCO registered Authorising Engineer competent in SW/2 activities
- to the Nominated Responsible Person
- with reference to a site specific method statement

The Authorising Engineer will brief the Nominated Responsible Person and the SGN SW/2 Technician on the Permit to Work and the specific requirements of the works. The SGN SW/2 Technician and Nominated Responsible Person must then ensure that all those involved in the works have a clear understanding of their role and responsibilities for the duration of the work.



Pipeline location

The SGN SW/2 Technician will locate and mark the pipeline route and associated zones. Markers will be placed at 3m intervals, at all bends and extend 15m in all directions from the planned excavations site.

The SGN SW/2 Technician will regularly monitor and maintain pipeline markers, especially during the course of longer duration works or works where markers or ground paint are more likely to be disturbed.

If pipeline markers are disturbed the SGN SW/2 Technician must be consulted to re-establish the markers in the correct location.

Trial holes

Trial holes are used to confirm the location and depth of a pipeline. If a mechanical excavator is to be used in the hazard zones, trial holes excavations must be carried out. All trial holes must be hand excavated. It is the responsibility of the SGN Authorising Engineer to decide how many trial holes are required. All indicated direction and depth changes must all be investigated and confirmed with trial holes. All trial holes must be monitored by an SGN SW/2 Technician.

If the planned works are outside the hazard zones, trial holes may still be required, it is the decision of the SGN SW/2 Technician to assess the need for trial holes outside the hazard zones.

Site-specific risk assessments

All risk assessments for work near a Major Accident Hazard Pipeline must be site-specific and must take into account the following:

- the proximity of the planned works to the pipeline
- the size and types of powered machines
- the activity to be undertaken in close proximity to the pipeline

Risk assessments must be regularly reviewed and amended accordingly if:

- site conditions change
- the activity changes
- the operatives involved or the mechanical plant changes
- the works are of long duration

Specific activities

Powered hand tools

A Permit to Work is required when using powered hand tools in the inner hazard zone or the danger zone.

The permissible proximity to the pipe will be specified by the Authorising Engineer.

Top soil stripping

- SGN SW/2 Technician must be on site.
- · applies only to work site areas not discrete excavations
- must not be undertaken within 3.0m of fittings/standpipes the position of these must be confirmed by hand excavation
- · toothless buckets must be used
- Permit to Work is required if a depth greater than 250mm is to be removed

Mechanical excavation

- no mechanical excavation is permitted within the danger zone, with the exception of top soil stripping
- a Permit to Work is required for all mechanical excavation in the hazard zones
- the SGN SW/2 Technician must be on site when used in the hazard zones
- must not be authorised for use within 1.5m of fittings and standpipes
- · must not reach over or across the pipeline
- must not pull towards the pipeline
- · must use toothless buckets
- use minimum sized buckets
- a banksman must be used at all times



Mechanical assistance

Mechanical assistance is when an excavator is used to assist in removing previously excavated spoil ie hand digging and placing the material into the excavator bucket. This is to aid in excavating without allowing the excavator to intrusively remove spoil. Mechanical assistance can be permitted subject to the following requirements:

- the SGN SW/2 Technician must be on site to monitor all works
- a Permit to Work is required within the hazard zones
- the machine must not lift over the pipe
- must not be used near fittings and standpipes

Vacuum excavators

Vacuum excavators can be used to assist in excavating near Major Accident Hazard Pipelines subject to the following conditions:

- a Permit to Work is required within the hazard and danger zones
- the position and depth of the pipeline must first be confirmed hand excavated trial holes
- toothed hoses must not be used unless authorised by SGN

Backfilling

The SGN SW/2 Technician must be present for all backfilling activities. If any backfilling is carried out without the SGN SW/2 Technician present the pipe must be re-excavated to check for damage.

All backfilling operations must be fully detailed in the method statement for the works, specifically the sequence of works and the plant types to be used. Compaction plant can pose a risk to pipeline integrity and as such a minimum of 600mm of hand placed and hand packed material must be in place prior to any plant being introduced. Only lightweight compaction plant can be used initially, until a total of 900mm of evenly compacted material is in place over the pipeline. The proximity distances are measured from the top most part of the pipeline, including any fittings or connections.

A Permit to Work is required for backfilling works that involve any of the following:

- mechanical excavators assisting in the hazard and danger zones
- hand operated vibro-tampers in the inner hazard and danger zones
- vibrating rollers in the hazard and danger zones
- any lifting operations ie lifting of plant or materials into the excavation

Damage to pipelines

Any damage to a high pressure pipeline or the pipeline coating can affect its integrity and can result in immediate or delayed failure, potentially causing severe or fatal injury.

All damage to a pipeline or a pipeline coating, however minor, must be reported to SGN via the SGN Gas Control room (0845 073 7953) immediately.

All work on site should stop immediately and the work area must be evacuated. No one must approach the site and no one must attempt to stop the leak.

	Ì
Contact details	
SGN SW/2 Technician name	
SGN SW/2 Technician phone number	

Gas emergency number: 0800 111 999

Booklet no:

Appendix A

N document 'Safe working near high hird parties.' inderstood the terms of the document may result in damage to the pipeline in egulations 1996. In prior to any works commencing in the aid agree working and restrictions. In all restrictions and advice provided by lanned works and to keep SGN advised ments to the planned works.
Witness signature
Full name of witness (please print)
Address
H H H



