Tel: 01661 832422 Fax: 01661 833687

OUTLINE METHOD STATEMENT SOUTH BANK COKE OVEN BATTERY PLANT

REF: WMT/SBBP/DEM/000

Contract REF:

REVISION STATUS

Revision: 0

Date of Issue: 23/04/2021



SIGNATURES OF AUTHORISATION

Title	Name	Signature
Thompsons H&S Officer	Paul Turbitt	P. Lwhite
Thompsons Site Manager	Gary Herbert	

Content

- 1. Summary of Works
- 2. Pre-amble
- 3. Methodology

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REVISION HISTORY

Revision	Date of Revision	Reasons for Revision

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1. SUMMARY OF WORKS

The project relates to the South Bank Coke Ovens (Phase 1 – Battery) only which consists of the areas shown on the drawing below.

This Outline Method Statement details the safe methods to be employed to demolish down to grade / top of concrete all above ground buildings, structures and tanks, leaving the site clean, safe and free from waste associated with the works.

The site comprises

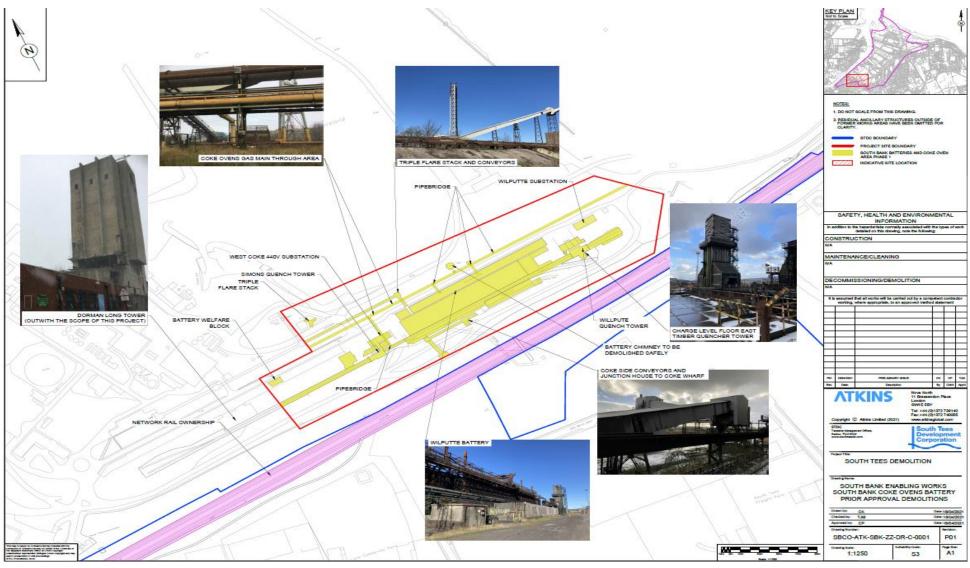
- 1. Wilputte Battery
- 2. Battery Bunker
- 3. Battery Welfare Block (including Battery Coke Wharf and Ploughs and Coke Hopper Dust Suppression Liquid Tank)
- 4. Wilputte Quench Tower
- 5. Simons Quench Tower
- 6. West Coke 440v Substation
- 7. Wilputte Substation
- 8. Battery Chimney
- 9. Triple Flarestack
- 10. Simon Calves Battery Remains
- 11. Coke Conveyors C1 & C2
- 12. Coke Conveyors W2 & W3
- 13. Mist Pipebridges and Racks with associated Services
- 14. Minor Ancillary Buildings



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The summary of the scope of works is to:

- Clean, tidy and remove general rubbish, debris and above ground loose materials off site from the project site area.
- Remove and dispose of identified asbestos
- Undertake structural surveys / temporary works design where close proximity structures are to be retained / protected
- Decontaminate assets
- Complete soft strip to all above ground assets, structures and buildings
- Demolish and remove from site all the above ground assets within the project site boundary and leave safe
- Backfill below ground voids and other excavations with appropriate material, tested and compacted
- General regarding of the site
- Disposal and recycling of materials arising from the works.

All works on site will be planned, executed and managed in accordance with Thompsons Covid-19 Risk Assessment and procedure, developed in line with Construction Leadership Council's - Site Operating Procedures.



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Site Address:	South Bank Coke Oven (Phase 1 – Battery)
	Teesworks Site
	Lackenby
	TS10 5QW
Client:	South Tees Development Corporation (STDC/STSC)
Principal	DDE Solutions Ltd
Designer	
Consultant:	2 Hardy's Road
Consultant:	Cleethorpes N.E Lincolnshire
	DN35 0DH
D 1	
Proposed	Thompsons of Prudhoe Ltd.
Principal	Princess Way
Contractor &	Low Prudhoe
Principal	Northumberland
Designer:	NE42 6PL
Project	J. Thompson Chairman 07702 491 333
Management:	N. Shilling Managing Director 07919 491 705
	T. Koerner Contracts Manager 07789 170 613
	C. Dobson Health, Safety & Quality Manager 07919 491 702
Appointments:	Demolition Supervisor - TBC
	Asbestos Supervisor – TBC
	• First Aid – TBC
Person	Chris Dobson is the appointed persons for authorising changes to the method of
responsible for	works, under the instruction of the Site Manager and following advice from the
changes to the	appropriate persons where required by legislation and Company Procedure.
method	



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Minor amendments to the method of works ("Red Penning") will be conducted
by Thompsons Asbestos Supervisor following approval by our Contracts
Management Team (in line with Company Procedure). Any major changes to the
Method of Works will facilitate the revision of the Method Statement (to be
conducted by the Company Health & Safety Manager / Contracts Management
Team).

Working Hours	Works will take place during $08.00 - 18.00$ Monday to Friday. It is possible that
	works may progress to the same hours on a Saturday. No works will take place
	on Sundays and Public Holidays.

Details of local	The Closest Hospital is as follows:		
A&E Hospital	James Cook University Hospital	Emergencies	999
	Marton Road	Non emergencies	01642 850850
	Middlesbrough		
	TS4 3BW		

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- Heras fencing and crowd barriers
- Warning and information signs
- SMH Hygiene Unit / DCU (self-contained, towable)
- Timber (2" x 2")
- Hand tools for asbestos removal & enclosure construction (screw drivers, staple gun, saw, hammer, saw)
- Metal framed airlock & baglock
- Hepa filtered vacuums
- Polythene sheeting (1000 gauge)
- Asbestos fibre suppressant solution (1:10 mix in low pressure spray) –
 See COSHH Assessment for "SMH asbestos fibre suppressant solution"
- Spraytack See COSHH Assessment for "Spray Adhesive"
- Asbestos consumables (duct tape, asbestos waste bags)
- Asbestos waste skip
- Viewing panels (300mm x 600mm)
- Negative pressure unit (as per calcs)
- Smoke generator



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•	Task	lighting	(110v)

- Demolition hand tools (pry-bar, hammer, saw, shovel)
- Wheel barrows, flexi-bins, trolleys
- Tower scaffold working platform or Podium working platform
- Demolition specification 360° excavator machine (equipped with choice of demolition attachments)
- 8 Wheel tipper bodied wagons
- Skips
- Disinfectant spray
- Strong waste bags
- Generators (silent-run)
- Plentiful soap and water & Disinfectant sprays

Personal Mandatory Protective • Ha

Equipment

- Hard hat (BS EN397 Thompsons supplied only)
- Light Eye Protection EN166F
- Overalls or jacket and trousers (with hi-viz panels or hi-viz vest)
- High visibility jacket/vest- EN471 /
- Safety boots (EN20345 Anti-Static incl. reinforced toe cap and midsole)
- Gloves- EN388 Specific to task, cut resistant 5 puncture resistant 4.

Use of hot cutting equipment

- Mandatory
- Flame retardant Overall -EN ISO 11611/ Anti-Static EN 1149-5:2008
- Hearing protection (earplugs BS352-2) in addition
- Airflow helmet (3M AH4 with ABEK and P3 filter) or Ori nasal respirator equipped with ABEK 1 combination filter & goggles (full face visor – in addition
- Foundry boots in addition
- Gauntlet hot working gloves in addition
- No high viz waistcoat or overcoat to be worn during hot works



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Asbestos enclosure construction

- Ori-nasal respirator with P3 filter
- Blue Disposable Coveralls (Category 5/6)
- Safety boots (no laces)
- Gloves General use (minimum of BS EN888:1994)
- Light eye protection (Safety Specs BS EN166)

Non-licensed & NNLW asbestos removal

- Ori-nasal respirator with P3 filter
- Red Disposable Coveralls (Category 5/6)
- Safety boots (no laces)
- Gloves General use (minimum of BS EN888:1994)
- Light eye protection (Safety Specs BS EN166)

Licensed asbestos removal

- Full face powered respirator with P3 filter
- Red Disposable Coveralls (Category 5/6)
- Gloves General use (minimum of BS EN888:1994)
- Safety boots (no laces)

Transiting

- Full face powered respirator with P3 filter
- White Disposable Coveralls (Category 5/6)
- Transit shoes

Note specific risk assessments may require the use of additional PPE

Services

The Pre-construction information has identified live services within close proximity to the structures marked for demolition.

Prior to the commencement of works, STDC will carry out a full decommissioning programme to fully isolate / disconnect all known live services within the South Bank Coke Oven Battery Plant area. TofP will request written



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confirmation / handover from STDC of these disconnection prior to the commencement of works.

All works will be pre-planned with due regard to potential live services within the confines of the CDM site, external to the buildings. The method and sequence of demolition, the location of demolition equipment, storage, stockpile and laydown areas will all be pre-planned. Consideration will be given to the placement of heavy plant as not to disturb buried or potentially shallow services.

Temporary service supplies will be established and maintained for the powering of equipment and task lighting.

All drains within the exclusion zone will be sealed using sandbags to prevent demolition debris from entering and protected using a steel plates.

Security Fencing and Protection

The Pre-Construction Information notes that the proposed site and existing environment is located within the former British Steel / SSI site.

To ensure the safety of all local stakeholders and to ensure the security of the site (and to prevent trespass and further vandalism etc) Thompsons will secure the boundary of the development site with heras fencing. All works will be contained within the site boundary.

During demolition works, a demolition exclusion zone will be put into place within the confines of the site, in accordance with BS6187:2011. Access to this exclusion zone during active demolitions will be permitted to essential persons only. Demolition plant to person interface will be strictly controlled and will be addressed in detailed method statements and risk assessments.

Asbestos removal works within the properties will be contained within a series of respirator zones and exclusion zones. Access will be permitted to essential and asbestos trained persons only and on approval of the Asbestos Supervisor. Asbestos removal works will be managed by a full time Asbestos Supervisor.

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Warning and information signs will be displayed in sufficient numbers to ensure that all persons approaching the site are aware of the operations being carried out.

A register will be kept of all persons on site. Operatives, visitors and third parties etc will all be required to notify their Supervisor upon arrival on site, who will sign the register for them. All non-essential visitors and third parties will not be permitted on site. Only essential visitors and third parties will be permitted on site and these will be escorted at all times when on site, maintaining a minimum of 2m social / physical distancing.

During all other plant movement, strict plant to person interface will be in place. Operatives will not enter the working radius of the excavator machine at any time.

360 Tracked Excavator



Working at Heights Access to heights (for asbestos removal, soft strip, demolition works etc) will be gained using a combination of aluminium tower scaffold / podium working platform / genie boom or scissor lift MEWP.

Each tower / Podium will be erected by a PASMA trained operative. Each tower / Podium will be sited on firm and level ground free of debris. Thompsons controlled work areas will be in force below all work at heights. The tower will be erected in accordance with the manufacturer's instructions and will incorporate toe boards and outriggers as applicable. Operatives will be instructed

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not to overreach and to move the tower / Podium frequently during works allowing for safe access. A scaff tag will be placed on all towers / podiums once erected by the PASMA operative, upon modification and then every 7 days thereafter. Only one person will be permitted on each item of access equipment at any one time, to ensure physical distancing of 2m+ is maintained.

The MEWP will be sited on firm and level ground. The MEWP will be operated by CPCS / IPAF trained and experienced operators. Exclusion zones will be in force around the MEWP at all times. MEWPs will be delivered to site and then manoeuvred to the working area under banksman control. Thompsons site manager / operatives will consult and agree what access equipment is required for each specific task. Daily plant inspections will be carried out by a competent operative and recorded on a daily plant inspection sheet.

In the event of injury the second operative within the MEWP basket will bring the MEWP basket to ground level (using the basket mounted controls). In event of injury to both operatives or if the basket mounted controls do not operate then a CPCS trained operative at ground level will use the over-ride / emergency controls located at ground level to lower the basket.

In accordance with Covid19 guidance, if 2m social distancing cannot be adhered to, operatives will be instructed to minimise the frequency and time they are within 2m of each other, operatives should work side by side or facing away from each other rather than face to face, regularly clean common touch points and instructed to wash their hands before and after using this equipment.

Operatives within the genie boom MEWP will be required to wear a full body safety harness with 1m fall restraint lanyard.

Manual Handling:

Operatives are manual handling trained. Operatives will not overload when carrying waste items. Wheel barrows, trolleys and flexi-bins will be used to assist in handling soft strip waste, which will be processed into small sections. Limited manual handling will be required during these works. Manual handling will be limited through the use of mobile plant.



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Any gas bottles which have been left within the building will be removed using a bottle barrow.

Asbestos waste will be double bagged / wrapped and removed with care, following a marked and direct transit route, to an external asbestos waste skip.

Operatives will follow a short, direct and unobstructed route to/from the workface to the waste skip. There will be no requirement for team-lifting or carrying.

Waste runs will be pre-planned to ensure that only one operative (the appointed standby man) is present on the waste route at any one time, to maintain social / physical distancing.

Permit to Work:

Operatives will work to a daily, specific Thompson's Safe Working Permit.

An additional permit will be issued for the use of hot works to remove rebar.

Operatives will also be briefed daily with a point of work tool box talk at the work face.

Noise:

Thompsons will employ the best practicable means to prevent noise nuisance or disturbance to local residents resulting from site activities, including deliveries. Thompsons will follow the best practice outlined in the current edition of BS 5228 "Noise and Vibration Control on Construction and Open Sites" during the planning and implementation of site activities and operations. The recommendations within BS 5228 Parts 1 to 4 shall be employed at all times to minimise the emission of noise from the site.

Thompson's contracts are conducted with regard to our Noise at Work Policy and procedures. Methods will be sought which will eliminate the requirement to conduct such works where possible. If this is not possible then their use will be minimized and controlled.

An exclusion zone will be in force around each workface, to prohibit access to all but essential persons. This will limit personal noise exposure.



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Each task will be subject to a noise risk assessment. Works generating levels in excess of 80dBA will be highlighted using warning signs. All works producing noise in excess of 85dBA and above will be conducted within an exclusion zone. Wherever practicable noise levels will be reduced at source. Where this is not possible, suitable and adequate hearing protection will be worn by operatives.

Thompsons will also carry out regular noise monitoring.

Dust:

Thompsons will minimise the production of dust during all stages of the project. Prior to commencement of works controls will be put into place to minimize the production of dusts.

During the demolition phase of the works Thompsons will minimize dust emissions by utilizing machine dust suppression systems, pressure washer bowsers etc. A water supply is present on site for Thompsons use. An assessment of the Conveyors has highlighted that accumulated dust maybe present; Thompsons will use water to dampen the demolition workface as works progress and the arisings produced during the demolition works. Care will be taken not to flood working areas. Non-essential persons will maintain at a safe standoff distance from demolition operations and will be positioned outside of the exclusion zone.

The excavator machines are equipped with a dust suppression system to reduce the dust at source, Thompsons will also use a pressure washer / water hose at ground level to reduce dust exposure.

Thompsons will also ensure that all vehicles leaving site are first sheeted to prevent the arising of dust during transportation. All waste will be transferred to authorised, licensed waste disposal sites.

Vibration

Thompsons will strictly control nuisance vibration via the selection of our demolition technique. High impact works will be strictly minimised. Thompsons will adhere to all approved working hours. Thompsons will adhere to the requirements of BS 5228 Part 1:1997 Code of Practice for Noise and Vibration



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Control on Construction and Open Sites, the Control of Pollution Act 1974, and the Environmental Protection Act 1990.

Whole body vibration will be strictly controlled through the provision of air seats and dampening mechanisms in the demolition plant. Annual health surveillance is in place to monitor the workforce. Plant and equipment will be maintained to a high standard throughout works in accordance with our integrated management system procedures, accredited to ISO 9001:2015

Environmental Precautions

At all times site operations will be undertaken with the protection of local stakeholders and the environment in mind. Works will be undertaken in a controlled manner to ensure the protection of and to minimise disruption to local stakeholders and all third parties. Thompsons will carry out our works to strictly minimise noise, vibration and airborne dust as much as possible.

All operatives will be advised of the aspects of the site that require attention or protection. Operatives will be provided with copies of the approved method statements prepared for the site working.

Thompsons will identify any hazardous materials and deal with the disposal of such materials in accordance with our statutory requirements.

Thompsons will ensure that our works do not pollute the environment including nuisance noise, windblown dust, spillages etc and will prevent polluting materials from leaving the site in accordance with the contract specification.

Thompsons will establish a designated re-fueling point on site. Spill kits will be present on site to deal with any incident. Operatives are Environmental Awareness trained and this includes emergency drills for clean-up / control of spillage. In the event of leakage / spillage operatives will follow the emergency clean-up / control procedure.

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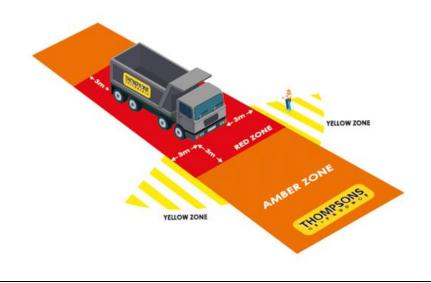
Traffic

Management

Personnel will adhere at all times to the STDC traffic systems and restrictions. An internal traffic management plan will be compiled prior to the commencement of demolition works.

At certain stages on the demolition works, if at any point a temporary partial or full road closure will need to be installed, STDC require aminimum 3 day notification period so the relevant diversions can be communicated. TofP will liaise with STDC as regards the proposed dates for these works and the requirement for the installation of the temporary closures. A specific TMP will also be produced for each temporary closure showing any proposed diversions.

Vehicles, Vans & Lorries



Daily Safety Briefing Prior to commencement of works each day a Daily Safety Briefing will be carried out by the specific Site Manager / Supervisor for that works area. At the specific workface, the team will discuss the previous day's work (and any learning outcomes). The team will then discuss the activities scheduled to be conducted that day and the associated hazards and control measures. The Daily Safety Briefing is formerly recorded and each operative will sign to note their acceptance. The DSB is retained in the daily works pack.

Safety Briefings, Inductions etc will be held outdoors as a Covid-19 mitigation.



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Point of Work Risk Assessment

A Point of Work Risk Assessment (POWRA) will be completed by the team for each task. The POWRA will be completed at the workface. The POWRA helps to ensure that any changing circumstances are noted and recorded and that all persons are aware of the scope of works, hazards and control measures for each task. The POWRA is documented and is retained in the daily works pack.

Safety Observation Reporting System

Thompsons will implement a Safety Observation Reporting System. This allows good working practice to the awarded and any issues to be highlighted and madesafe. All levels of site personnel and visitors to site will be expected to spot and record positive and negative safety observations. Booklets will be given to all persons upon commencement of works, for recording observations. Feedback boxes will be placed throughout welfare and working areas. The data will be analysed to look for patterns to help focus additional instruction and training and to commend good working practice.

Covid-19 Mitigation

- Adhere to guidance posted on employee portal (Company and Government guidance), emails, MEMOs and toolbox talks etc.
- Adhere to Thompsons Covid-19 Risk Assessment and procedure, developed in line with Construction Leadership Council's - Site Operating Procedures.
- Monitor works and operatives and ensure that the company requirements and government guidance are followed
- Ensure that persons showing symptoms do not come to site. If persons show symptoms whilst at work then they must immediately return home and commence isolation as per government requirements. The HR Department must be informed without delay.
- Remind employees to wash their hands for 20 seconds more frequently and catch coughs and sneezes in tissues
- Work with and instruct the team to frequently clean and disinfect objects and surfaces that are touched regularly, using your standard cleaning products
- Ensure Public Health England guidance on social distancing is strictly followed
- Rota use of welfare to maintain a standoff of 2m



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- Ensure that persons travel to site individually by car or van
- Ensure non-essential persons are not permitted entry to site
- Ensure social distancing during work tasks
- Undertake pre-work briefings etc in open-air
- Drivers should remain in their vehicles if the load will allow it and must wash or clean their hands before unloading goods and materials
- Avoid Close Working There will be situations where it is not possible or safe for workers to distance themselves from each other by 2 metres
 - Non-essential physical work that requires close contact between workers should not be carried out
 - o Work requiring skin to skin contact should not be carried out
 - Thompsons will plan all other work to minimise contact between workers
 - Re-usable PPE will be thoroughly cleaned after use and not shared between workers
 - o Single use PPE will be disposed of so that it cannot be reused
 - o Regularly clean touchpoints, doors, buttons etc.
 - Increase ventilation in enclosed spaces by opening doors, windows etc
 - The 2m standoff must not jeopardise operative safety and where tasks require persons to work together, they must be assessed to look for alternative methods of work

Known Hazards:

- Services (live services)
- Traffic movement
- Weather conditions
- Falling debris
- Flammable substances
- Poor housekeeping (slips, trips & falls)
- Work at height
- Third party interface
- Dust



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- Noise
- Vibration
- Waste management
- Asbestos
- Residual contaminants
- Use of hand tools
- Use of powered hand tools
- Operation of mobile plant
- Stored energy
- Instability of structure during demolition
- Use of oxy / propane hot cutting equipment
- Ecology
- Covid19

Welfare arrangements

- Thompsons will provide a self-contained modular integrated welfare facilities. The welfare will
 be partitioned from the public car park and vehicle access areas etc using Heras fencing and
 crowd barriers, with pedestrian access hoops. All welfare facilities will be maintained
 throughout the project.
- The welfare will be powered by a silent-run generator. Waste tank and water tanks are integrated and will be regularly serviced by a service provider.
- Thompsons will ensure that robust controls are put into place to mitigate Covid-19 during welfare use.

Dilapidation survey

• Prior to commencement of works and again on completion of works, Thompsons will undertake a dilapidation survey of the areas surrounding the CDM site and within the site boundary.

Decontamination of South Bank Coke Oven Battery Plant

 Prior to the commencement of demolition works, Thompsons will appoint the services of an approved subcontractor to fully decontaminate all of the identified structures / buildings within the scope of works.

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Removal of Asbestos Containing Materials

- Upon approval to commence works Thompsons Project Management Team will review the survey. A series of site visits will then be conducted to identify each ACM, using the surveys as a reference guide. To aid operatives during the asbestos removal and associated works the location of each ACM will be physically marked.
- If any errors in the survey are noted, or if asbestos containing materials detailed within the survey cannot be identified then Thompsons will alert the Clients Team.
- Asbestos removal works will be in accordance with detailed and specific Asbestos Removal Method Statements, compiled by our Asbestos Managers.
- Asbestos removal works will be conducted within exclusion zones, ensuring that access is only
 permitted to essential asbestos removal personnel.
- During works Thompsons will appoint the services of an asbestos analyst, where required, to conduct daily reassurance and personal air monitoring to assess the effectiveness of the asbestos removal technique and control measures.
- Prior to completion of each section of notifiable / licensable works the analyst will conduct a
 four-stage clearance air test to confirm that the asbestos has been removed and that the area has
 been thoroughly cleaned.
- Copies of all documentation received from the analyst will be retained on site for the duration
 of the works for inspection by the Client, the HSE or other interested party. This information
 will also be forwarded to the Principal Designer (either on completion of works or as works
 progress, as required) as part of the project Health & Safety File.

Removal of waste items & soft strip of internal fittings & fixtures

- Loose items remaining within the building will be collated, processed as required into sections (small enough to be handled by one person without the requirement for team work) and then removed with due care to an external skip. Due care will be forwarded to safe manual handling and means such as trolleys and wheel barrows will be used where possible to aid operatives.
- Works will progress to remove doors, door frames, skirtings and back moulds etc. Saws (non-powered) will be used to cut the frames and moulds to release tension. The frames and moulds will be pulled free using pry-bars. The sections will be reduced as required and then removed to the external skip.
- Fixed / fitted items will be freed from their holding points using hand tools (screwdriver etc). The fixtures / fittings will then be processed (using demolition hand tools) into small and hand sized sections to allow for their safe removal to the external skip.



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• It is important that items / appliances which have the potential to be classified as either scrap metal or WEEE are identified from the onset and are put into the waste chain to avoid illegal treatment of these items. In accordance with Thompson's waste requirements, Thompsons Site Supervisor will identify all WEEE items to determine scrap classifications (i.e. what classifies as scrap and what classifies as WEEE). Thompsons will also recover light bulbs and light fittings to ensure they are not damaged for safe disposal under the WEEE regulations.



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Remote Demolition of the Wilputte Quench Tower, Wilputte Battery, Simons Quench Tower & Simons Calves Battery Remains

- Following completion of any preparatory works, the Wilputte Quench Tower, Wilputte Battery, Simons Quench Tower & Simons Calves Battery Remains will be demolished by remote mechanical means, using a combination high reach demolition spec 360° excavator machine and 100te excavator machine equipped with shear attachment. The high reach will be assisted by an additional demolition spec 360° excavator machines, for low-level demolition, material processing, sorting and segregation.
- During demolition works the perimeter of the site will be controlled as a demolition exclusion zone, in accordance with BS6187:2011 Code of Practice for Demolition Operations.
- The excavator machines will be positioned at the south east side of the structures and will work gradually from East to West through the structure. A 2:1 standoff from the building will be maintained at all times.
- Following the demolition of the Wilputte Battery down to slab level, this will allow the basement pipework to be fully decontaminated, following this the concrete floor will then broken out via a breaker attachment, the supports legs will also be broken out, all pipework will be removed and then the void will be backfilled using specified hardcore materials.
- All waste materials will be processed, segregated and either stockpiled on site for later re-use or removed off site to a licensed waste transfer station.

Remote Demolition or Explosive Demolition of the Battery Bunker, Battery Chimney & Associated Conveyors

- Following completion of any preparatory works, the Battery Bunker, Battery Chimney & the associated Conveyors will be demolished via either remote super high reach excavator machine or explosive demolition activities.
- Prior to the commencement of these works, all required third parties (Network Rail) will be contacted and informed of the proposed method of demolition.

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Remote Demolition of the Battery Welfare Block, West Coke 440V Substation, Wilputte Substation

- Following completion of any preparatory works, the Battery Welfare Block, West Coke 44ov Substaion & Wilputte Substation will be demolished by remote mechanical means, using a demolition spec 360° excavator machine equipped with shear / grab attachment.
- During demolition works the perimeter of the site will be controlled as a demolition exclusion zone, in accordance with BS6187:2011 Code of Practice for Demolition Operations.
- The excavator machine will be positioned to face the structure and will work gradually through the structure from one side to the other. A 2:1 standoff from the building will be maintained at all times.
- All waste materials will be processed, segregated and either stockpiled on site for later re-use or removed off site to a licensed waste transfer station.

Remote Demolition of the Triple Flare Stack & Lighting Towers

- Following completion of any preparatory works, the Triple Flare Stack & Lighting Tower
 will be demolished by remote mechanical means by either pushing or pulling the stack / tower
 over via wire ropes.
- During demolition works the perimeter of the site will be controlled as a demolition exclusion zone, in accordance with BS6187:2011 Code of Practice for Demolition Operations.
- Following the demolition of the Stack / Tower, both will be processed via 360° excavator machine equipped with shear attachment.

Remote Demolition of the Low Level Pipebridges

- Following completion of any preparatory works to isolate the pipebridge, it will be demolished by remote mechanical means, using a demolition spec 360° excavator machine equipped with shear attachment.
- During demolition works the perimeter of the site will be controlled as a demolition exclusion zone, in accordance with BS6187:2011 Code of Practice for Demolition Operations.
- The excavator machine will be positioned to face the structure and will work gradually from through the structure. A 2:1 standoff from the building will be maintained at all times.
- All waste materials will be processed, segregated and either stockpiled on site for later re-use or removed off site to a licensed waste transfer station.



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Completion of works

- Following the completion of the demolition works, the processing and removal of all arisings by TofP and STDC and the area is clear, all surface areas will be cleaned-off level with adjacent surface area levels and any remaining trip hazards will be cut flush with the surrounding ground level.
- Remaining stumps / rebar will be cut flush with ground level using oxy / propane hot cutting equipment. Hot works will be conducted under a Thompsons permit to work system. Hot works will be conducted by a CCDO Topman operative, working under the direction of the Site Supervisor. The Burner operative is to wear RPE/PPE as defined within the method statement pre-amble. A Hot Work Permit will be required to be signed on a daily basis. The oxygen / propane bottles will be located within a designated area close to the works and the hoses routed with care as to not pose a tripping hazard. Flash back arrestors will also be present. A trained fire watchman, pressure washer and water fire extinguisher MUST be present prior to the commencement of hot works. A continuous fire watch will be in place during hot works, the fire watch will extend for 1 hour following completion of each shift of hot works.

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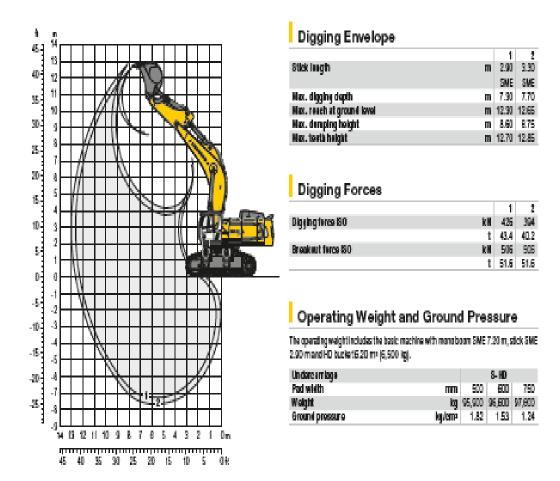
<u>Figure 1 – High Reach Excavator Machine</u>



Figure 2 – Liebherr 980

Backhoe Bucket

with Mono Boom SME 7.20 m



	Buckets Machinestability per 80 10567*(75% of tipping capacity)					
	S-HD-Undercartogo SME-Attachment ###################################					
	nn	m	kg	2.90	3.30	
Ē	2,300	6.20	6,500	à.		
H	2,450	6.80	6,800	•	à.	
er.	2,300	5.20	7,200	à.	à	
Š	2,300	5.70	7,300	<u> </u>		
=	2,300	6.30	7,500	T .	À	

[&]quot; Indicated loads are based on 150 10567, at maximum reach, and may be swung 360" on firm and even ground

Max. material weight $\Delta=$ $\simeq2.0~\text{Vmp}, \blacksquare=$ $\simeq1.8~\text{Vmp}, \Delta=$ $\simeq1.65~\text{Vmp}$

Figure 3 – 40te Excavator Machine Specification

v HD bucket with teeth Z 90 (appropriate for materials above classification 6, according to V 08, Section C, DIN 18300)

[»] HOV but let with teeth Z 90 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300). Other backhoss available on request.

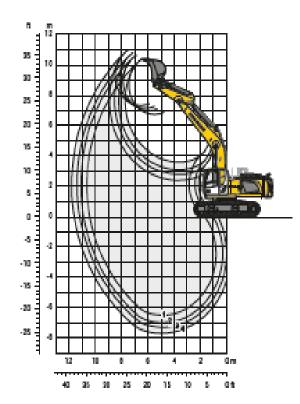
Thompsons of Prudhoe Limited

Princess Way, Low Prudhoe, Northumberland, NE42 6PL

Tel: 01661 832422 Fax: 01661 833687

Backhoe Bucket

with Mono Boom 6.45 m and Counterweight 7.7 t



with quick couplor	1	2	3	4
	2.10	2.60	2.90	3.30
Hax. digging depth m	6.50	7.00	7.30	7.70
Hax, neach as ground level m	10.40	10.85	11.15	11.55
Hax. duruping height m	6.70	6.95	7.10	7.30
Hax, wech height m	10.30	10.50	10.75	10.95

Digging Forces

Digging Envelope

000					
with quick couplor		1	2	3	4
Digging force ISO	kΝ	216	191	179	184
-	T	22.1	19.5	18.2	16.7
Breakont force 600	KN	208	208	208	208
	τ	21.2	21.2	21.2	212
without quick coupler					
Digging force ISO	kΝ	229	201	187	172
	τ	23.3	20.5	19.1	17.5
Breakent force ISO	kΝ	238	238	238	238
	τ	24.2	24.2	24.2	242

Max, breakous force ISO with ripper bucket and without quick coupler.

300 KM (30.6 f)

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 7.7 t, mono boom 6.45 m, stack 2.60 m, quick coupler SWEE and backer 1.75 m ? (.420 kg).

Undercarriage	ritercamings			MLC			LC		
Pad width "	nn	500	600	750	500	600	750		
Weight	log .	38,750	39,200	39,850	38,850	39,300	39,950		
Ground prossure	kg/en/	0.88	0.74	0.60	0.88	0.34	0.60		

Undercamlage			LC-V	
Padwidth	mn	500	600	750
Weight	log .	43,750	44,350	45,500
Ground pressure	kg/en/	0.92	0.78	0.64

Optional: counterweight 9.0 t (courseweight 4.0 c increases the operating weight by 1,500 kg and ground pressure by 0.03 kg/cm/) see load tables on page 27

Buckets weeking subtleyour ISO 10567* (75% of apping capacity)

_													20															
	F2	245 745	£	£					rein							Unde										rlago 		
	3 5	20	100	100	with	1-	ick co	gler		h quic	kenup			out qu	ick co		Ni.	th guida				out qu	idken	ıpler -		h quic	k coup	
	nn	TP-	log	log	2.10	2.60	2.90	3.30	2.10	2.50	290	3.30	2.10	2.60	2.90	3.30	2.10	2.60	2.90	3.30	2.19	2.60	2.30	3.30	2.10	2.50	2.90	3.39
	1,050	1.00	1,220	1,150	4	4	4.	4	4	4.	4	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
	1,200	1.25	1,290	1,240	A	A	A .	4	4	À.	4	À.	4.	à.	A	4.	À.	4.	.A.	4.	.A.	4.	À.	4.	à.	4.	A.	A
	1,350	1.50	1,330	1,330	4	4	4.	4	4	4.	4	4.	4.	4	4.	4.	4.	4.	4.	4	4.	4.	4.	4.	4.	4.	4	4.
_	1,500	1.75	1,480	1,420	4	4	Δ.	4	4	4.			4.	4.		4.	4.	4.	.4.	Α.	Α.	4.	4.	Α.	4.	Α.	4.	
Ē	1,650	2.00	1,580	1,540	4	4			4				4.	4.	4.		4.	4.	4.		4.	4.	4.	4.	4.	4.	4	4.
94	1,990	2.25	1,680	1,650	4		Α.			Α.		Δ.	4.	4.			4.		.4.		Α.	4.	4.	Α.	4.	Α.	4.	
	1,350	250	1,910	1,870			Δ.	Δ		Δ.	Δ	Δ.		4.		Δ.		4.		Δ.	4.	4.	4.	4.	4.	4.		
	1,990	2.75	1,950	1,910		Δ	Δ.	-		Δ.	Δ	-	A.		Δ.	Δ.	A.		Δ.	Δ.	A.	4.	4.		.A.	4.	•	A.
	1,850	3.00	1,990	1,950	Δ	Δ	-	-	Δ	Δ.	-	-		Δ.	Δ.	à.		Δ.	Δ.	-	4.			4.	4			

[&]quot; Indicated loads are based on 190 10567, as maximum reach, and may be saving 360° on firm and even ground.

Max. material weight $\Delta = a 2.0 \text{ v/m}^2$, $\Delta = a 1.8 \text{ v/m}^2$, $\Delta = a 1.5 \text{ v/m}^2$, $\Delta = a 1.2 \text{ v/m}^2$,

Figure 4 – 20te Excavator Machine Specification

Standard bucket with week Z 50

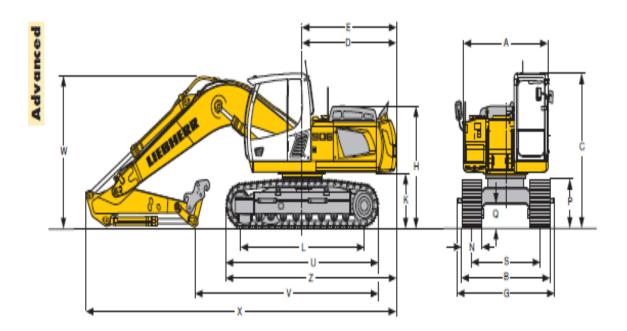
a Backet for direct mounting

^{*}Bucket for mounting to quick coupler Other bedsets available upon request



Dimensions

Advanced



	NLC		mm	LC		mm	WLC		mm
Α			2,500			2,500			2,500
C			3,047			3,047			3,047
D			2,770			2,770			2,770
D*			2,920			2,920			2,920
Е			2,790			2,790			2,790
E*			2,940			2,940			2,940
Н			2,402			2,402			2,402
K			1,095			1,095			1,095
L			3,648			3,648			3,648
P Q S			955			955			955
Q			460			460			460
			2,000			2,250			2,380
U			4,510			4,510			4,510
Z			5,030			5,030			5,030
Z*			5,180			5,180			5,180
N	500	600	750	500	600	750	500	600	750
В	2,500	2,600	2,750	2,810	2,850	3,000	2,974	2,980	3,130
G	2,500	2,780	2,780	2,810	2,850	3,110	2,974	2,980	3,274

* with heavy counterweight

E = Tall radius

G = Width with removable steps

m	2.20	2.40	2.70	3.00
mm	5,450	5,200	4,950	4,700
mm	3,000	3,050	3,050	3,100
mm	9,200	9,200	9,200	9,200
5.7	0 m			
	mm mm	mm 5,450 mm 3,000	mm 5,450 5,200 mm 3,000 3,050 mm 9,200 9,200	mm 5,450 5,200 4,950 mm 3,000 3,050 3,050 mm 9,200 9,200 9,200

Straight Gooseneck Boom	5./	v m			
Stick length	m	2.20	2.40	2.70	3.00
V	mm	6,000	5,850	5,650	5,450
W	mm	2,800	2,850	2,900	3,050
V W X	mm	9,550	9,550	9,550	9,550
•					

	dravlically Adjustable	Boom	3.50	m		
Sti	ck length	m	2.20	2.40	2.70	3.00
٧	ck length	mm	6,000	5,900	5,600	5,400
W		mm	2,700	2,750	2,800	2,850
Χ	for NLC-Undercarrlage	mm	9,850	9,850	9,850	9,900
	for LC-Undercarriage	mm	9,700	9,700	9,700	9,750
	for WLC-Undercarriage	mm	9,700	9,700	9,700	9,750

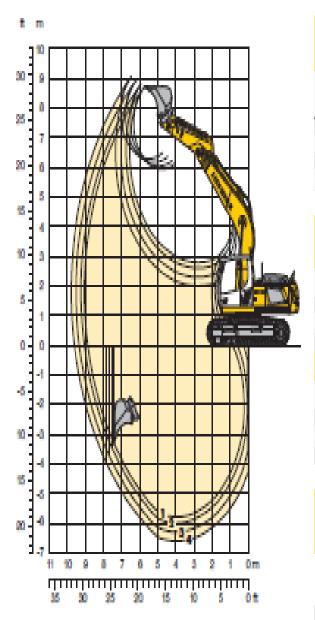
Adjustable Offset Boom	5.50	m			
Stick length	m	2.20	2.40	2.70	3.00
V	mm	5,550	5,400	5,150	4,900
V W X	mm	2,700	2,750	2,800	2,850
X	mm	9,450	9,450	9,450	9,500



Backhoe Attachment

Advanced

with Gooseneck Boom 5.40 m



Digging Envelope with Quick Change Adapter		1	2	3	4
Stick langths	m	2.20	2.40	2.70	3.00
Max. digging dispth	Ш	5.80	6.00	6.30	6.60
Max. reach at ground level	П	8.85	9.05	9.30	9.60
Max. dump height	M	5.95	6.05	6.15	6.30
Max. tooth height	m	8.70	8.80	8.90	9.05

Digging Forces without Quick Change Adapt	ier	1	2	3	4
Digging force ISO	M	134	126	117	108
	1	13.7	12.8	11.9	11.0
Breakout force ISO	d		158	158	158
	1	16.1	18.1	16.1	18.1
with Quick Change Adapter					
Digging force ISO	kN	127	121	112	104
	- 1	12.9	12.3	11.4	10.6
Breakout force ISO	W	138	138	138	138
	t	14.1	14.1	14.1	14.1

Operating Weight and Ground Pressure

Operating weight includes basic machine with gooseneck boom 5.40 m, stick 2.20 m, quick change adapter 48 and bucket 0.80 m².

Undercentag			NLC			IC			WLC	
Pad width		900	600	190	900	600	190	500	600	750
Waight	19	22,500	22,800	21,250	22,550	22,830	21,300	22,000	22,000	22,250
Ground										
DEC IN	lg/m²	057	0.48	0.39	057	0.48	0.29	0.57	148	0.29

Optional: heavy duty counterweight (Heavy duty counterweight increases the operating weight by 1,000 kg and ground pressure by 0.02 kg/cm²)



Thompsons of Prudhoe Limited Princess Way, Low Prudhoe, Northumberland, NE42 6PL

Tel: 01661 832422 Fax: 01661 833687

OUTLINE METHOD STATEMENT / RISK ASSESSMENT REGISTER

DEMOLITION WORKS SOUTH BANK COKE OVEN BATTERY TEESWORKS, LACKENBY

This is to certify that the method statement / risk assessment has been explained to me and that I understand my duties in relation to Health & Safety and the companies ISO 9001:2008 Quality Policy & ISO 14001:2006 Environmental Policy.

DATE	NAME	SIGNATURE
	Answer Session Conducted by:	
Name:		Signature:
Comments:		
	WMT/S	SBBP/DEM/000

Prepared by: P Turbitt REF: WMT/SBBP/DEM/000 Revision 0



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