

**THE ROYAL GUNPOWDER FACTORY**

**WALTHAM ABBEY**


25-49



## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER	OLD SERIES 25	RCHME NUMBER	N.G.R. TL 37414 02308
NAME/FUNCTION Gunpowder drying stove room Clean store		START DATE 1885 189?	END DATE
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
1897 WASC 900/53C c1910 WASC 900/65 ; 25 c1910 WASC 900/79 ; 25 1917 WASC 900/70 ; 25 1917 WASC 900/72 ; 25 1919 WASC 900/74 ; 25 c1920 WASC 900/80 ; 25 1923 WASC 900/84 ; 25 > 1940 WASC 900/91A ; 25 1954 A - B.34 ; 25 c1960 WASC 900/94		1908 RGPF Ledger WASC 1509 + WASC 1764 ; Clean Store c1925 RGPF Ledger WASC 1680 ; Clean Store c1945 RGPF Ledger WASC 1508 ; Clean Store	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS			
ASSOCIATED WITH: 24, 26, 27, 28			
CONDITION Demolished			
DESCRIPTION			
1) CONSTRUCTIONAL MATERIAL Brick			
2) ROOF MATERIALS AND STRUCTURE -			
3) POWER SOURCE Formerly steam heat			
5) Brick foundations north of the steam stove 27 mark the site of this building. At its northern side the line of the former boat house may be discerned as brick foundations.			

## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER 27	OLD SERIES 26	RCHME NUMBER	N.G.R. TL 37415 02291
NAME/FUNCTION Boiler House Engine and Fan House Firing Point	START DATE 1885-6 189? 194?	END DATE 189? 194?	
			
<b>CARTOGRAPHIC DEPICTION</b>  1897 WASC 900/53C c1910 WASC 900/65 ; 26 c1910 WASC 900/79 ; 26 1917 WASC 900/70 ; 26 1917 WASC 900/72 ; 26 1919 WASC 900/74 ; 26 c1920 WASC 900/80 ; 26 1923 WASC 900/84 ; 26 > 1940 WASC 900/91A ; 26 1954 A - B.34 ; 26 c1960 WASC 900/94 c1963 WASC 900/97 1972 WASC 900/102 1972 WASC 900/104 1976 WASC 900/113		<b>DOCUMENTARY REFERENCES</b>  1908 RGPf Ledger WASC 1509 + WASC 1764 ; Engine and Fan House c1925 RGPf Ledger WASC 1680 ; Engine and Fan House c1945 RGPf Ledger WASC 1508 ; Engine and Fan House  1992 RARDE list ; Brick Structure	
<b>PHOTOGRAPHY HISTORIC</b>		<b>PHOTOGRAPHY RCHME</b> 1) 206/B/34 19 Feb 1993 Stove 27 from East No4 Steam Stove 1885 2) BB92/26171 27 Gunpowder Stove Traverse No4 Steam Stove 1885 view from South East BB92/26172 27 Interior showing reverse as a Firing Point view from North West	
<b>RELATIONSHIPS WITH OTHER MONUMENTS 27, 24, 25</b>			
<b>CONDITION Fair</b>			

DESCRIPTION

1) CONSTRUCTIONAL MATERIAL  
Brick in English Bond

2) ROOF MATERIALS AND STRUCTURE  
Brick Vault

3) POWER SOURCE  
Steam

4) DIMENSIONS i) L 16.5m ii) W 11m iii) HT estimate 6m

5) The stove is oval in shape constructed in buff coloured bricks, with battered walls flattened at either end. The stove was entered through semicircular headed doors at either end, the were arches executed in red brick. Over the eastern door a stone plaque reads 'No 4 Steam Stove 1885'. In the brick vaulted ceiling is the remains of the chimney flue.

The stove has subsequently been used as a firing point. Inside are the concrete and steel plating remains of this activity. The internal walls are pocked marked as a result of the explosions within stove.


**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES 27	RCHME NUMBER	N.G.R. TL 37415 02291
NAME/FUNCTION Guncotton stove No.1	START DATE 1884-5	END DATE	
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION	DOCUMENTARY REFERENCES		
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME		
RELATIONSHIPS WITH OTHER MONUMENTS  ASSOCIATED WITH: 24, 25, 26, 28			
CONDITION	Demolished its site may lie beneath the modern track		
DESCRIPTION  5) The rectangular shaped guncotton stove made use of the old steam stove no 4 as an engine and fanhouse. Its site may lie beneath the modern track along the eastern side of the river Lea.			

**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES 28	RCHME NUMBER	N.G.R. TL 37414 02278
NAME/FUNCTION Gunpowder Steam Stove Clean store		START DATE 1885 189?	END DATE 189? 195?-196?
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
1897 WASC 900/53C c1910 WASC 900/65 ; 28 c1910 WASC 900/79 ; 28 1917 WASC 900/70 ; 28 1917 WASC 900/72 ; 28 1919 WASC 900/74 ; 28 c1920 WASC 900/80 ; 28 1923 WASC 900/84 ; 28 > 1940 WASC 900/91A ; 28 1954 A - B.34 ; 28 c1960 WASC 900/94		1908 RGPF Ledger WASC 1509 + WASC 1764 ; Boat Cover c1925 RGPF Ledger WASC 1680 ; Boat Cover c1945 RGPF Ledger WASC 1508 ; Boat Cover	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS			
ASSOCIATED WITH: 24, 25, 26, 27			
CONDITION Demolished			
DESCRIPTION			
5) The building lay to the south of steam stove 27, remains of the building may lie beneath a dump of river gravel which overlies its site.			

**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES 28a	RCHME NUMBER	N.G.R. TL 37480 02296
NAME/FUNCTION Engine house		START DATE 192?	END DATE
			
CARTOGRAPHIC DEPICTION  1923      WASC 900/84 ; Engine/Fan House		DOCUMENTARY REFERENCES  c1925      RGPF Ledger WASC 1680 ; Engine House	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS  ASSOCIATED WITH: 22a, 29			
CONDITION      Poor			
DESCRIPTION 1)      CONSTRUCTIONAL MATERIAL Formerly timber framed  2)      ROOF MATERIALS AND STRUCTURE -  3)      POWER SOURCE Electricity  4)      DIMENSIONS i) L 4m ii) W 3.4m  5)      The building has been demolished, a concrete floor slab remains. In the centre of the building is a concrete mounting block 1.0m x 0.89m with a height of 1.25m. To the east and west of the building are concrete slabs 1.88m x 1.25m.			

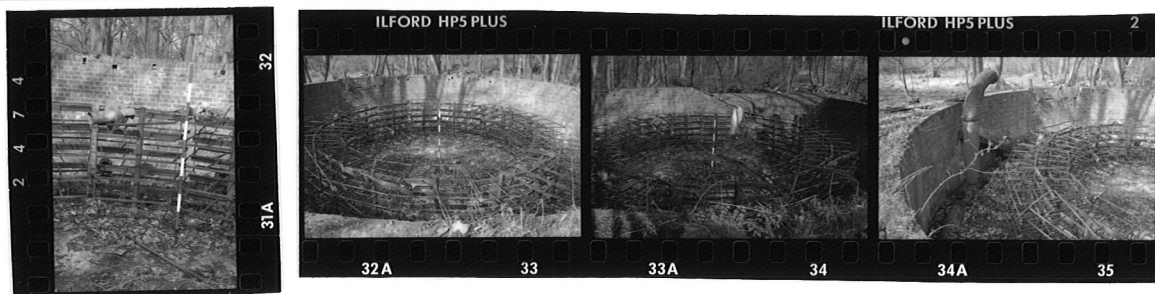
**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES 28b	RCHME NUMBER	N.G.R. TL 37511 02418
NAME/FUNCTION Earth closet	START DATE	END DATE	
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION 1923 WASC 900/84 ; EC	DOCUMENTARY REFERENCES		
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME		
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH:			
CONDITION	Demolished		
DESCRIPTION 5) The earth closet lay between 17a and guncotton stove 18, no surface remains are visible.			



## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER	OLD SERIES 29	RCHME NUMBER	N.G.R. TL 37502 02271
NAME/FUNCTION Guncotton Stove No.12 Picrite Store		START DATE 1897 1925	END DATE 1925 1945?



<p><b>CARTOGRAPHIC DEPICTION</b></p> <p>1923      WASC 900/84 ; 29 Guncotton Stove No.11</p>	<p><b>DOCUMENTARY REFERENCES</b></p> <p>1908      RGPF Ledger WASC 1509 + WASC 1764 ; Guncotton Stove</p> <p>c1925      RGPF Ledger WASC 1680 ; Guncotton Stove</p> <p>c1945      RGPF Ledger WASC 1508 ; Guncotton Stove</p> <p>1963      Simmons W M A <u>Short History of the Royal Gunpowder Factory at Waltham Abbey</u> 62             manufacture of picrite starts at RGPF in 1925</p> <p>1972      ERDE List ; Picrite Store/Burnt out</p> <p>1992      RARDE List ; Picrite Store/Burnt out</p>
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<p><b>PHOTOGRAPHY</b> <b>'HISTORIC'</b></p>	<p><b>PHOTOGRAPHY</b> <b>RCHME</b></p> <p>1) 206/N/32 12 Mar 1993 Detail of Drying Rack</p> <p>206/N/33 12 Mar 1993 Picrite stove from South, pole in central post hole</p> <p>206/N/34 12 Mar 1993 Stove from South West</p> <p>206/N/35 12 Mar 1993 Warm Air Pipe and steps from South</p> <p>206/N/36 12 Mar 1993 Steps on West side of mound</p> <p>206/N/37 12 Mar 1993 Heating Pipe inlets along North side</p> <p>206/O/33 08 Mar 1993 showing external steps</p> <p>206/O/34 08 Mar 1993 showing line of warm air pipe</p> <p>206/O/35 08 Mar 1993 internal drying racks</p> <p>206/O/36 08 Mar 1993 warm air pipe entering</p> <p>206/O/37 08 Mar 1993 detail of entrance from West showing support for cover over entrance</p> <p>206/Q/1 12 Mar 1993 Wooden Porch support over Canal</p> <p>BB92/26288 Picrite Stove 29 from South with drying racks</p>
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<p><b>RELATIONSHIPS WITH OTHER MONUMENTS</b></p> <p>ASSOCIATED WITH: 28a, 22a/a</p>
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<p><b>CONDITION</b>      Good</p>
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#### DESCRIPTION

1) CONSTRUCTIONAL MATERIAL  
Brick and earthwork

2) ROOF MATERIALS AND STRUCTURE  
-

3) POWER SOURCE  
Electricity and steam heating

4) DIMENSIONS iv)DIA 10.7m

5) The stove comprises a circular internal brick wall in English bond 2.45m in height revetting an earthen traverse. Guncotton was transferred to and from the stove beneath a covered corrugated iron porch over the canal, supported by a timber framework on the opposite side of the canal to the stove. The stove was entered along a covered passage the concrete walls, added to the original structure, formerly supported a timber superstructure. The stove originally consisted of a timber roundhouse in the centre of the traverse. The building sat on a concrete platform 9.4m in diameter. The wall sills were attached to the platform by vertical mounting bolts set into the concrete, the base of the wall in places retaining fragments of galvanised sheeting. The walls of the building were braced short horizontal joists set into the revetting wall, the holes for which remain. The roof of the building was supported by a central post 17cm x 17cm. The roundhouse was separated from the revetment wall by a gully 0.68m in width and 0.42m deep. This gully was entered from the south west up a flight of timber steps running up the traverse and then over into the gully. Within the building were fragments of reinforced window glass. Also lying within the building were a number of metal roof vents.

Within this stove are sixteen drying racks, arranged in a circular pattern each rack has 5 shelves. The racks are 1.44m high with a width of 0.85 at the front and 1.29m at the rear. The guncotton trays were supported by stout copper wires formerly attached to the shelves.

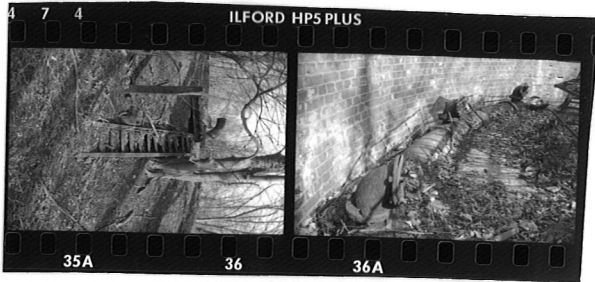
The building was heated by a pipe that entered from the north west connected to engine house 28a. The support stanchions for this pipe may be traced from the engine house to the stove although the piping has been removed. On entering the stove this pipe formerly connected to a flanged cast iron bend, bore 30cm. This in turn connected to a flanged vertical straight cast iron pipe 168.5cm in length. This pipe then joined through a T junction to a series of horizontal cast iron flanged curves set on bricks within the gully described above. To the north of the entry curve are five full curves and one short and to the south five full curves. To the top of each curve is bolted a cast iron flanged elbow, diameter bore 13.5cm, giving a total of twelve inlet pipes. A circular cast iron flange plate is bolted to the end of the elbow by wing nuts. This securely sandwiched a galvanised pipe and sheet of gauze between it and the end of the elbow. This galvanised pipe would have formerly entered the side of the stove. The pipe was insulated by fibrous asbestos held in place by chicken wire and weather proofed by a coat of galvanised sheet metal.

Historic salvage - drying racks and circular heating pipe, any other metal fittings, roof vents.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER

CONTINUATION SHEET



## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER	OLD SERIES 36	RCHME NUMBER	N.G.R. TL 37550 02235
NAME/FUNCTION Guncotton Stove No.13		START DATE 1904 193? (rebuilt)	END DATE 193? (rebuilt) 1945
CARTOGRAPHIC DEPICTION  1923      WASC 900/84 ; 36 Guncotton Stove No.13		DOCUMENTARY REFERENCES  1908      RGPF Ledger WASC 1509 + WASC 1764 ; Guncotton Stove c1925      RGPF Ledger WASC 1680 ; Guncotton Stove c1945      RGPF Ledger WASC 1508 ; Guncotton Stove  1972      ERDE List ; Guncotton Stove/Burnt out 1992      FARDE List ; Guncotton Stove/Burnt out	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME 1) 206/T/19 17 Mar 1993 From South 206/T/20 17 Mar 1993 Interior from South 206/T/21 17 Mar 1993 Guncotton Stove Radiator 206/T/22 17 Mar 1993 "Maxloom" Danger Building lights	
RELATIONSHIPS WITH OTHER MONUMENTS  ASSOCIATED WITH: 23, U1 (30)			
CONDITION		Good	

## DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL  
Cast concrete

- 2) ROOF MATERIALS AND STRUCTURE  
Galvanised metal sheets

- 3) POWER SOURCE  
Electric lighting and steam heating


- 4) DIMENSIONS iv)DIA 10.6m

- 5) The stove comprises a circular internal cast concrete wall 2.3m in height, revetting an earthen traverse. The stove was set on a central island separated from the revetment wall by a gully 0.65m in width and 0.4m deep. This stove had a rectangular building 6.32m x 4.84m divided into two rooms. The building had a timber frame covered by sheet abestos attached to a low brick sill wall by vertical mounting bolts. Fragments of the galvanised sheet metal roof were found in the stove. The stove was entered from the south along a covered porch from the adjacent canal. The door to the stove was protected by a fender, toe board, to prevent the entry of grit into the building. The floor of the building sloped gently southwards. At the south east and south west corners were drain holes lined with lead piping. The building was lit by 'Maxlume' danger building light boxes affixed to its exterior. The cabling for these lights was enclosed in small bore metal pipes.

The building was heated by a steam pipe with a bore of 24mm entering from the engine house U1 (30) to the north. This pipe served two free standing radiators, one in each room. A cast iron steam chest lying in the building was made by 'Hopkinsons Huddersfield'.

Historic salvage - Steam radiator (only remaining example of danger building radiator on the site), 'Maxlume' danger building lights, steam chest, any other metal fittings .

**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES 44	RCHME NUMBER	N.G.R. TL 37547 02182
NAME/FUNCTION Boat house		START DATE 1857-8	END DATE
			
CARTOGRAPHIC DEPICTION 1923 WASC 900/84 ; Boat House		DOCUMENTARY REFERENCES 1908 RGPF Ledger WASC 1509 + WASC 1764 ; Boat House c1925 RGPF Ledger WASC 1680 ; Boat House c1945 RGPF Ledger WASC 1508 ; Boat House	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME 1) 206/R/16 18 Mar 1993 Site of Boat House from East	
RELATIONSHIPS WITH OTHER MONUMENTS  ASSOCIATED WITH:			
CONDITION Buried			
DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick  4) DIMENSIONS i) L 8.1m ii) W 4.3m  5) The remains of the demolished boat house may be traced as two low brick foundation walls. The inner bay may be traced where the infilling material has settled			

## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER	OLD SERIES 46	RCHME NUMBER	N.G.R. TL 37625 02155
NAME/FUNCTION Mixing House No.2	START DATE 1904	END DATE 20-Apr-1940	
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
1923	WASC 900/84 ; 46 Mixing House No.2	Proc Court Inquirey on explosion RGPF 20th April 1940	
1940	Proc Court Inquirey on explosion RGPF 20th April 1940 - Appendix II Plan of crater and building	Plan; 46	B01 ; Site plan of New Mixing House
		1908	RGPF Ledger WASC 1509 + WASC 1764 ; Mixing House
		c1925	RGPF Ledger WASC 1680 ; Mixing House
		c1945	RGPF Ledger WASC 1508 ; Mixing House (demol by explosion)
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME		
1940	Proc Court Inquirey on explosion RGPF 20th April 1940 - Appendix I Photographs 1-4		
RELATIONSHIPS WITH OTHER MONUMENTS			
ASSOCIATED WITH: E3			
CONDITION Demolished			
DESCRIPTION			
1)	CONSTRUCTIONAL MATERIAL Earthwork		
5)	The mixing house was totally destroyed in an explosion on 20th april 1940. A slight scarp marks the position of the northern side of the traverse.		

## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

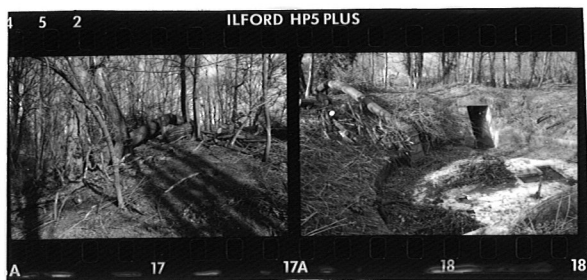
NUMBER 46A	OLD SERIES	RCHME NUMBER	N.G.R. TL 37620 02130
NAME/FUNCTION Mixing house		START DATE 1940?	END DATE 1945?
<p><b>CARTOGRAPHIC DEPICTION</b></p> <p>1954    A - B.34  c1960    WASC 900/94  c1963    WASC 900/97  1972    WASC 900/102  1972    WASC 900/104  1976    WASC 900/113</p>		<p><b>DOCUMENTARY REFERENCES</b></p> <p>c1945    RGPf Ledger WASC 1508 ; Replace 46 to new 1941 design   1972    ERDE List ; Mixing House with Landing Stage  1992    RARDE List ; Mixing House with Landing Stage</p>	
<p><b>PHOTOGRAPHY HISTORIC</b></p>		<p><b>PHOTOGRAPHY RCHME</b></p> <p>1) 206/O/17 08 Mar 1993 steam pipe entering  206/O/18 08 Mar 1993 steam pipe, N/G gully tunnel  206/O/19 08 Mar 1993 interior from South  206/O/20 08 Mar 1993 detail of area where N/G tank stood  206/O/21 08 Mar 1993 holes for N/G mixing tables  206/O/22 08 Mar 1993 tunnel through which the N/G was channelled</p> <p>2) BB92/26292 Mixing House 46A from South West</p>	
<p><b>RELATIONSHIPS WITH OTHER MONUMENTS</b></p> <p>ASSOCIATED WITH: E3, 46R</p>			
CONDITION		Good	



**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER

CONTINUATION SHEET



#### DESCRIPTION

1) CONSTRUCTIONAL MATERIAL  
Breeze block and earthwork

2) ROOF MATERIALS AND STRUCTURE  
-

3) POWER SOURCE  
Electricity and ?steam heating

4) DIMENSIONS iv)DIA 10.6m

5) This mixing house replaced mixing house no 2 (46) which was destroyed in an explosion on 20th april 1940. The mixing house sat within a circular breeze block revetment wall surrounded by an earthen traverse. The mixing house was a timber framed roundhouse 9m in diameter that sat on a low brick sill wall. It was secured to the floor by vertical mounting bolts and was separated from the revetment wall by a gully. In the centre of the building is a post hole 16cm x 16cm. The mixing house was entered from a landing stage through a covered porch from the south. The porch was timber framed and covered by asbestos sheeting. To the west of the porch was a small asphalt covered building base 2.6m x 1.7m. The arm of the canal was specially constructed to serve this building.

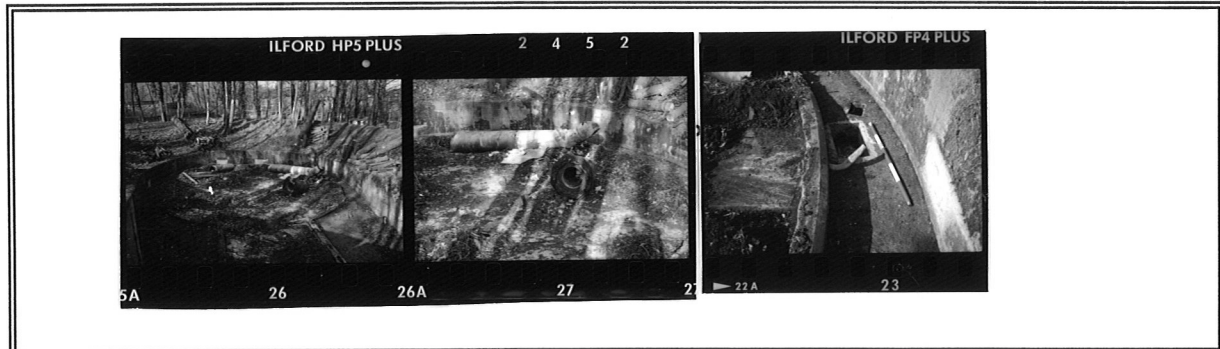
The nitroglycerine entered the mixing house from the washing house E3 along a lead lined gutter formerly supported on timber trestles. The nitroglycerine was then channelled along the western side of a breeze block lined tunnel to the north of the roundhouse. The nitroglycerine was then stored in a tank within the building before being measured into burettes. To the north of the roundhouse are the cut off steel bolts that secured this tank and an L shaped trough in front, 220cm x 142cm, into which the bags of guncotton were placed. In the floor of the building are three groups of four post holes 26cm x 22cm, depth 7cm to which the mixing tables were fixed.

The building was heated by a warm air pipe entering from the west that unusually entered the base of the building. The pipe was constructed from sections of rolled galvanised sheeting and connected together by bolted flanged ends. The pipe was lagged by fibrous asbestos secured in place by chicken wire and protected by a jacket of galvanised metal.

Historic salvage - heating pipe, 'Maxlume' danger building lights, any other metal fittings

# THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER 46R	OLD SERIES	RCHME NUMBER	N.G.R. TL 37658 02184
NAME/FUNCTION Replacement for Mixing House No.2		START DATE 1941	END DATE 1945?



<p><b>CARTOGRAPHIC DEPICTION</b></p> <p>1954     A - B.34  c1960    WASC 900/94  c1963    WASC 900/97  1972     WASC 900/102  1972     WASC 900/104  1976     WASC 900/113</p>	<p><b>DOCUMENTARY REFERENCES</b></p> <p>1972     ERDE List ; Replacement for Mixing House No.2  1991     Mott McDonald survey  1992     RARDE List ; Replacement for Mixing House No.2</p>
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<p><b>PHOTOGRAPHY HISTORIC</b></p>	<p><b>PHOTOGRAPHY RCHME</b></p> <p>1) 206/O/26 08 Mar 1993 from South  206/O/27 08 Mar 1993 pipe detail  206/T/23 17 Mar 1993 Detail lead pipe North side  2) BB92/26293 Mixing House 46R from South</p>
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**RELATIONSHIPS WITH OTHER MONUMENTS**

ASSOCIATED WITH: E2

**CONDITION**     Good

#### DESCRIPTION

1) CONSTRUCTIONAL MATERIAL

Breeze block and earthwork

2) ROOF MATERIALS AND STRUCTURE

Galvanised metal sheeting

3) POWER SOURCE

Electricity and steam heating


4) DIMENSIONS iv)DIA 11.4m

- 5) The mixing house along with 46A was built probably in late 1940 as replacement for mixing house 46 destroyed in an explosion on 20th april 1940. The mixing house was set within a circular breeze block revetting wall retaining an external earthen traverse. The traverse was revetted along its northern side by abreeze block wall against Newtons Pool. The mixing house was entered from the east through a tunnel. Within the tunnel the narrow guage rails that served the house remained, as the metal rails approached the entrance porch they were replaced by wooden rails. At the ned of the tunnel an old crack sealed by cement has the date 1-1-44.


The timber roundhouse that formerly stood in the centre of the traverse was separated from the revetting wall by a gully 0.7m in width. The timber wall frames sat on a brick retaining wall around the concrete floor, 9.3m in diameter, secured to the floor by vertical mounting bolts. The roundhouse was entered along through a covered porch constructed from a timber frame with asbestos sheet fixed to it. Only part of the floor was exposed, the remainder covered by humic deposits. Where the floor was exposed were four square post holes each 10cm x 10cm forming a feature 82cm x 82cm. To the north of the building in the gully are two rectangular concrete holes, form the larger a lead pipe with a bore of 39mm entered the building. This pipe was probably associated with the movement of nitroglycerine into the house.

The building was heated by a single pipe from fanhouse U2 that formerly connected to an octagonal roofplate, 91cm x 91cm, at the apex of the roof. The pipe consisted of segments formed from rolled sheets with flanged ends bolted together. The pipe was lagged by fibrous asbestos, held in place by chicken wire and protected by a galvanised metal jacket. The building was lit by electric light protected in enamelled 'Maxlume' boxes.

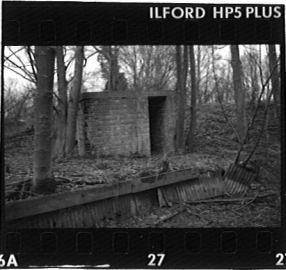
## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER U2	OLD SERIES	RCHME NUMBER	N.G.R. TL 37669 02204
NAME/FUNCTION Fanhouse?		START DATE 1941?	END DATE
			
CARTOGRAPHIC DEPICTION  c1960    WASC 900/94 ; U2		DOCUMENTARY REFERENCES  1992    RARDE List ; Small Brick Built Building	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS  PART OF: 46R			
CONDITION    Fair			
<p>DESCRIPTION</p> <p>1)    CONSTRUCTIONAL MATERIAL       Brick in English bond.</p> <p>2)    ROOF MATERIALS AND STRUCTURE       Concrete slab</p> <p>3)    POWER SOURCE       Steam heat and electricity</p> <p>4)    DIMENSIONS i) L 2.89 ii) W 2.89 iii) HT 2.4</p> <p>5)</p> <p>The building is square with a flat concrete roof, traces of wavy camouflage paint remain on the exterior. At the base of the southern wall is a small rectangular aperture, Height 55cm width 51cm. This hole formerly allowed the warm air pipe to pass through to 46R. The west wall is blank. At the base of the northern wall is a louvred opening height 89cm width 76cm, this was formerly protected by a hinged canvas shutter. The building is entered through a single wooden door on the eastern side. Internally is a concrete machine base with four mounting bolts. The building has latterly been used as a small office connected with explosive experiments within Newton's Pool RCHM 276.</p>			

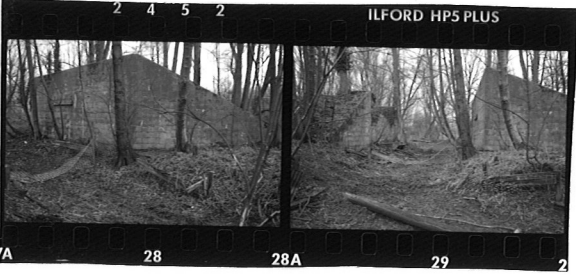
## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER U5	OLD SERIES	RCHME NUMBER	N.G.R. TL
NAME/FUNCTION Transformer house?		START DATE 194?	END DATE
			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
		1) 1992 RARDE List - Small brick shed	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
		1) 206/C/25 From SW	
RELATIONSHIPS WITH OTHER MONUMENTS			
ASSOCIATED WITH: 83b			
CONDITION      Good			
DESCRIPTION			
1)      CONSTRUCTIONAL MATERIAL Brick			
2)      ROOF MATERIALS AND STRUCTURE Corrugated asbestos over timber purlins			
3)      POWER SOURCE Electricity			
4)      DIMENSIONS i) L 4.2m ii) W 3.14m iii) HT gable 3.6m			
5)      The building is small, gabled single storey brick shed constructed on a concrete slab. It was entered through two double doors on the south side and lit by a window on the eastern side. The openings for the door and window are capped by a concrete lintel.			

## THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER	OLD SERIES	RCHME NUMBER 215	N.G.R.
NAME/FUNCTION Shelter	START DATE 1940?		END DATE
			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS			
ASSOCIATED WITH: 46A			
CONDITION      Fair			
<b>DESCRIPTION</b> 1)      CONSTRUCTIONAL MATERIAL Brick in English bond  2)      ROOF MATERIALS AND STRUCTURE Flat concrete slab  3)      POWER SOURCE None  4)      DIMENSIONS i) L 3.1m ii) W 2.05m iii) HT 2.05m  5)      The shelter is a small single storey building. It has an entrance on the south side, and a window filled by segmental breeze blocks. Traces of wavy camouflage paint remain on the exterior of the building. The building has partly subsided into a filled canal formerly leading to aqueduct RCHM 214.			

# THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER	OLD SERIES	RCHME NUMBER 216	N.G.R. TL
NAME/FUNCTION Blast Wall		START DATE 1940?	END DATE
			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS  PART OF: 46A			
CONDITION      Good			
DESCRIPTION 1)      CONSTRUCTIONAL MATERIAL Breeze block and earthwork  4)      DIMENSIONS i) L 11.58m ii) W 3.8m iii) HT 3.9m  5)      Breeze block blast wall screening entrance to mixing house 46A.			



**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES	RCHME NUMBER 256	N.G.R.
NAME/FUNCTION Steam pipe stanchions		START DATE 1940?	END DATE
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION	DOCUMENTARY REFERENCES		
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME		
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH:			
CONDITION	Good		
DESCRIPTION 5) Line of tarred posts reinforced concrete posts with loops and pipe suspenders formerly carrying a steam pipe.			

**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES	RCHME NUMBER 259	N.G.R.
NAME/FUNCTION	START DATE 1940?		END DATE
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS			
ASSOCIATED WITH:			
CONDITION      Fair			
DESCRIPTION 1)      CONSTRUCTIONAL MATERIAL Brick in English bond. 2)      ROOF MATERIALS AND STRUCTURE Flat concrete slab. 3)      POWER SOURCE None 4)      DIMENSIONS i) L 3.09 ii) W 2.05 iii) HT 2.14 5)      Small rectangular brick building set on a concrete slab with traces of wavy camouflage paint on the exterior. There is a single door on the western side and a window to the east blocked by breeze blocks.			

**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES	RCHME NUMBER 260	N.G.R.
NAME/FUNCTION Pipeline	START DATE		END DATE
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: RCHM 256			
CONDITION      Poor			
DESCRIPTION  Line of reinforced concrete pipeline supports forming a T junction with RCHM 256.			

**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES	RCHME NUMBER 261	N.G.R.
NAME/FUNCTION Pipeline	START DATE		END DATE
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION		DOCUMENTARY REFERENCES	
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: 17a			
CONDITION      Poor			
DESCRIPTION  Line of reinforced concrete pipe supports leading to engine house 17a.			

**THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY**

NUMBER	OLD SERIES	RCHME NUMBER 261	N.G.R.
NAME/FUNCTION Steam pipe stanchions	START DATE 1940?	END DATE	
NO PHOTOGRAPHY AVAILABLE			
CARTOGRAPHIC DEPICTION	DOCUMENTARY REFERENCES		
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME		
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: 17a			
CONDITION	Good		
DESCRIPTION  Line of reinforced concrete steam pipe stanchions leading to engine house 17a.			

