# THE ROYAL GUNPOWDER FACTORY, WALTHAM ABBEY, ESSEX AN RCHME SURVEY, 1993

L173-199



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$\bigcirc$	THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY				
	number L175	OLD SERIES	RCHME NUMBER	N.G.R. 37615 01692	
	NAME/FUNG	CTION trol Burning Ground	START DATE 1963	END DATE	
		. NO PHOTO AVAIL			
C)	CARTOGRA	APHIC DEPICTION	DOCUMENTARY REFEREN	NCES	
	1972 V	VASC 900/102 ; L175 VASC 900/104 ; L175 VASC 900/113 ; L175	1991 Mott McDonald sur	Control Burning Ground vey Control Burning Ground	
	PHOTOGRA HISTORIC	ЛРНҮ	PHOTOGRAPHY RCHME		
			1) 206/F/3 From South East		
	RELATIONS	SHIPS WITH OTHER MONUMENTS			
	ASSOCIATE	2D WITH: L178, Burning Ground			
	CONDITION	N Good			
$(\cdot)$		ON DNSTRUCTIONAL MATERIAL eeze Block			
		DOF MATERIALS AND STRUCTURE at Concrete slab			
		OWER SOURCE ectricity			
	4) DI	MENSIONS i) L 3.7 ii) W 2.73 iii) HT 2.2			
		is single storey building is rectangular in plan. It ndows on the north and west elevations. The sout		elevation and armoured	

#### THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY NUMBER OLD SERIES RCHME NUMBER N.G.R. TL 37734 01024 L176 204 NAME/FUNCTION START DATE END DATE 1857 1958 **Boiler** House Store EFDC/Riggers Shop 1958 NO PHOTOGRAPHY **AVAILABLE** CARTOGRAPHIC DEPICTION DOCUMENTARY REFERENCES WASC 900/10A ; 73 1861-1868 Plans: WASC 900/13 ; Boiler House L176 B01,B02; Plans and Elevations 1902 to 1958 1865 WASC 900/14 ; Boiler House 1865 1865 WASC 900/38 + SUPP5 975 ; Boiler House 1908 RGPF Ledger WASC 1509 + WASC 1764 ; WASC 900/41A ; Boiler House Boiler House built 1857 p23 1865 WASC 900/42 RGPF Ledger WASC 1680 : Boiler House c1925 1865 WASC 900/53C c1945 RGPF Ledger WASC 1508 ; Boiler House 1897 WASC 900/65 ; Boiler House c1910 ERDE List ; Store EFDC/Riggers Shop WASC 900/79 ; Boiler House 1972 c1910 WASC 900/70 ; Group A Boiler House 1991 Mott McDonald survey 1917 RARDE List ; Store EFDC/Riggers Shop 1917 WASC 900/72 ; 204 1992 1919 WASC 900/74 ; 204 WASC 900/80 ; 204 1992 FBRC; Storage c1920 1923 WASC 900/84 ; 204 1993 RCHME NBR No.91452 WASC 900/91A ; L176 > 1940 A - B.34 ; L176 1954 WASC 900/94 ; L176 c1960 WASC 900/97 ; L176 c1963 WASC 900/102 ; L176 1972 WASC 900/104 ; L176 1972 WASC 900/113 ; L176 1976 PHOTOGRAPHY PHOTOGRAPHY HISTORIC RCHME 1) 206/J/16 From South West 206/J/19 North wall from North 206/R/19 From South West 2) BB92/26143 Interior of Boiler house from North BB92/26079 From North West 3) 225/B/22 Interior 225/B/23 Interior 225/B/24 Exterior 4) 4788/2 06.05.1993 4788/6 06.05.1993

4788/12 06.05.1993

#### RELATIONSHIPS WITH OTHER MONUMENTS

# ASSOCIATED WITH: L168, L169, L170a ABUTTED BY: L177

# CONDITION Good

# DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL Brick
- 2) ROOF MATERIALS AND STRUCTURE Slate over Timber Roof Frame
- 3) POWER SOURCE Formerly Steam, Electricity
- 4) DIMENSIONS i) L 17.6 ii) W 11.0 iii) HT 6.0
- 5) See attached RCHME Threatened Buildings Section report.

#### ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND

MOD Building No. L176 Boiler House The Royal Gunpowder Factory Waltham Abbey Essex NBR No: 91452 NGR: TL 37734 01024

Built in c1857 as a Boiler House for the earliest of the incorporating mills buildings (L168) on the Gunpowder Factory site, this building is single-storeyed with a rectangular plan and is constructed of yellow brick laid in English bond. Originally it had a brick chimney attached at its north side.

In 1902 a Dynamo House was added at the centre of the east elevation. In 1903 a Smith's Shop was built in the re-entrant angle on the south side of the Dynamo House, against the east wall of the Boiler House. The latter addition has since been demolished.

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Building L168 was built in c1857 as a Boiler House.<sup>1</sup> It is situated approximately 10 metres north of the western fork of the main canal and approximately 15 metres south of a contemporary Engine House and Mechanics Shop building (no. L168).<sup>2</sup> In conjunction with the latter building, it powered Group A Incorporating Mills (L176, now demolished) which adjoined the east side of L168.

It has a rectangular plan, of six bays by three bays<sup>3</sup> (17.6 x 11 m), which is aligned north to south.<sup>4</sup> It is single-storeyed and rises to height of approximately six metres. Originally it had an octagonal chimney on its north side and a coal yard on the east side.

Constructed of yellow brick laid in English bond, the building has a chamfered brick plinth and a brick dentil cornice. There are brick pilasters at the corners of the building on each side as well as an evenly-spaced pair of pilasters on each of the west and east elevations. The windows have cambered heads of rubbed red-brick. Originally the windows were sash and each had a rectangular blind panel below.<sup>5</sup> There were three windows on the north elevation and windows flanking a central door on the south elevation. In pairs between the pilasters, there are six windows on the west elevation and six blind windows on the east elevation. The blind windows on the north side appear to be an original feature, as they are shown as such in a drawing of the building of 1856-7.<sup>6</sup>

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository).

The bays are described with reference to the number of windows (ie six by three), although pilasters divide the sides into three main bays by a single main bay.

The building is aligned north-north-west to south-south-east but for the clarity of this report it is described as if it was aligned north to south.

Undated elevation drawing, cat. LE179/1 (PRO, Hayes Repository).

Drawing of plan with alterations dated 1856 and 1857 (PRO, Hayes Repository).

Although the building is shown on a map of 1821, it is likely that such a representation is part of an updating of the map in the 1850s-60s, "A Survey of the Lands and Buildings, the Property of the Ordnance, at the Royal Powder Works, Waltham Abbey, made in compliance with the Master General and Boards Order 6th June 1821" (PRO, Hayes Repository). A drawing of the plan has alterations which are dated 1856 and 1857 (PRO, Hayes Repository). The Ledger of c1908 dates the building to 1857, cat. WASC 1509 (PRO, Hayes Repository)

The floor was of stone.<sup>7</sup> The roof truss is of iron and incorporates decorative cast iron compression members. The roof is hipped and has slate coverings and a central skylight. The chimney was brick-built.

In 1902 new boilers were installed in building no. L176 and a Dynamo House with a lean-to roof was built at the centre of the east elevation.<sup>8</sup> Constructed of brick, with a concrete floor and slate roof, it had two dynamos and an accumulator shelf. Also known as the Switchboard House, this addition points to a change in the building from steam power to electric power at this time and may coincide with a conversion in building no. L169 from gunpowder incorporating to cordite reeling.<sup>9</sup>

In the following year, 1903, a Smith's Shop was built in the south-east angle between the Boiler House and Dynamo House.<sup>10</sup> Of a similar size as the Dynamo House, it also had a lean-to roof and was constructed of brick, with a concrete floor and corrugated iron roof.

The building has undergone several other alterations. The windows on the west elevation were enlarged by replacing the sashes with taller windows which extend to incorporate the former blind rectangular panels below. One of the blind windows on the east elevation was opened up and the open windows on the north elevation were made blind. A wide doorway was inserted at the centre of the north elevation. The Smith's Shop has been demolished some time after 1923.<sup>11</sup> By 1958 the Boiler House was used as a Store and a Riggers Shop.

Surveyed March 1993 Report by R L Burgess

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository).

Uncatalogued ink drawing showing Dynamo House and seating plan for new boilers (with a pit to suit footplates) Group A, (?old cat. no. 827), and Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository).

In the OS County Series 1:2500 maps, 2nd ed. 1897 (surveyed 1865, revised 1895), sheet refs XLIX.14, XLI.8.12, XLII.5.9) Building L169 is labelled as Reeling Houses Group A.

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository).

The building is shown as the Smith's Shop in a 1:2500 site plan of the Royal Gunpowder Factory at Waltham Abbey, revised March 1923, cat. WASC 900/84.

NUMBER L177	OLD SERIES 205	RCHME NUMBER	N.G.R. TL 37734 01024
NAME/FUNCTION Switch Board House Battery Charge House		START DATE 1902 1945?	END DATE 1945?
		HOTOGRAPHY VAILABLE	
c1910         WASC 9           1917         WASC 9           1917         WASC 9           1917         WASC 9           1919         WASC 9           c1920         WASC 9           1923         WASC 9           > 1940         WASC 9           1954         A - B.34           c1960         WASC 9           c1963         WASC 9           1972         WASC 9           1972         WASC 9	00/65 ; Switch Board House 00/79 ; Switch Board House 00/70 00/72 ; 205 00/74 00/80 ; 205 00/84 ; 205 00/91A ; L177	1908 RGPF Ledg Switch Boa c1925 RGPF Ledg House c1945 RGPF Ledg House 1972 ERDE List ; 1991 Mott McDo	EFERENCES 902 ; Dynamo House er WASC 1509 + WASC 1764 ; rd House built 1902 p23 er WASC 1680 ; Switch Board er WASC 1508 ; Switch Board Paint Spraying/Barttery Charging nald survey ; Battery Charging House
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME 1) 206/J/20 From No 3) 225/B/30 Exterior	rth
RELATIONSHIPS	WITH OTHER MONUMENTS		

- DESCRIPTION 1) CONSTRUCTIONAL MATERIAL 1) Brick
- ROOF MATERIALS AND STRUCTURE 2) Slate over timber boards supported purlins on Iron frames with glass roof lights.
- POWER SOURCE 3) Steam, Electricity
- 4) DIMENSIONS i) L 8.1 ii) W 5.2 iii) HT 6.0
- A date stone on the north elevation reads '1902-3'. The building is a single storey and has a rectangular plan, the 5) roof is a single gable. The building has two windows on the east elevation and two windows and a double door on the northern elevation.

See attached RCHME Threatened Buildings Section report

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBER OLD SERIES L178	RCHME NUMBER	N.G.R. TL 37625 01691			
NAME/FUNCTION Burning Ground Solvent Store	START DATE 1963?	END DATE			
NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC DEPICTION 1972 WASC 900/102 ; L178 1972 WASC 900/104 ; L178 1976 WASC 900/113 ; L178	1991 Mott McDonald sur	g Ground Solvent Store vey ng Ground Solvent Store			
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME 1) 206/F/2 From South				
RELATIONSHIPS WITH OTHER MONUMENTS					
ASSOCIATED WITH: L176					
CONDITION Good					
DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick 2) ROOF MATERIALS AND STRUCTURE Corrugated Asbestos over wooden frame 4) DIMENSIONS i) L 2.45 ii) W 1.85 iii) HT 2.65					
5) The building is a single storey with a rectangular gro southern elevation is a single metal grill door.	ound plan, it has gabled ends to t	he north and south. On the			

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBER OLD SERIES L179	RCHME NUMBER	N.G.R. TL 37672 01458			
NAME/FUNCTION Store	START DATE 196?	END DATE			
NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC DEPICTION c1960 WASC 900/94 ; L179 c1963 WASC 900/97 ; L179 1972 WASC 900/102 ; L179 1972 WASC 900/104 ; L179 1976 WASC 900/113 ; L179	DOCUMENTARY REFERENCES         Plan;         L179       B02 - no date ; Building to Convert to Acid Store         1972       ERDE List ; Blacksmith Shop         1991       Mott McDonald survey         1992       RARDE List ; Blacksmiths Shop				
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME 1) 206/D/36 From East				
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: L134					
CONDITION Good					
DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Corrugated Iron and Fibre Glass					
2) ROOF MATERIALS AND STRUCTURE Corrugated Iron					
3) POWER SOURCE Electricity					
4) DIMENSIONS i) L 3.65 ii) W 3.6 iii) HT 2.3					
5) The building is single storeyed with a rectangular gro corrugated iron and asbestos. There is a single woo		timber frame covered by			

NUMBER L180	OLD SERIES 208	RCHME	ENUMBER	N.G.R. TL 37770 01038
	CTION rs Shop & Store aying/Welding Shop	START 1902 194?	DATE	END DATE 194?
		OTOGRAPI AILABLE	НҮ	
CARTOGRA	APHIC DEPICTION	DOCUN	IENTARY REFERE	NCES
c1910 V	VASC 900/65 ; Pipe Fitters Shop & Store VASC 900/79 ; Pipe Fitters Shop & Store VASC 900/70 ; Pipe Fitters Shop & Store	Plan; L180	B01 - 18/10/1904 ;	Painter shop
1917 V 1919 V	VASC 900/72 ; 208 VASC 900/74 ; 208	1908	Fitters Shop & Stor	
1923 V	VASC 900/80 ; 208 VASC 900/84 ; 208 VASC 900/91A ; L180	c1925 c1945	Store	C 1680 ; Pipe Fitters Shop C 1508 ; Pipe Fitters Shop
1954 A	A - B.34 ; ; L180 VASC 900/94 ; L180		Store	
1972 V 1972 V	VASC 900/97 ; L180 VASC 900/102 ; L180 VASC 900/104 ; L180 VASC 900/113 ; L180	1972 1991 1992	Mott McDonald sur	praying and Welding Shop vey Spraying and Welding Sho
PHOTOGRA HISTORIC	АРНҮ	PHOTO	IGRAPHY B	
			4) 4788/12 06.05.1993	
RELATION	SHIPS WITH OTHER MONUMENTS			
ASSOCIATED WITH: L182				

#### DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL Brick
- 2) ROOF MATERIALS AND STRUCTURE Slate over boards supported on timber purlins.
- 3) POWER SOURCE Electricity
- 4) DIMENSIONS i) L 10.10 ii) W 10.0 iii) HT 6.0
- 5) The building is single storeyed with a rectangular ground plans, it has gabled ends to the east and west. The northern elevation has two single doors, the southern elevation has single door in the west side is a modern double door. The west and east elevations each have three windows. Internally the building is divided into two rooms.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBER OLD SERIES L181	RCHME NUMBER	N.G.R. TL 37757 01029			
NAME/FUNCTION Sub Station	START DATE 1941?	END DATE			
NO PHOTO AVAIL					
CARTOGRAPHIC DEPICTION c1960 WASC 900/94 ; L181 c1963 WASC 900/97 ; L181 1972 WASC 900/102 ; L181 1972 WASC 900/104 ; L181 1976 WASC 900/113 ; L181	DOCUMENTARY REFEREN Plans; L181 B01 - B07 ; Plans a 1972 ERDE List ; Sub Sta 1991 Mott McDonald sun 1992 RARDE List ; Sub S	nd Elevations 1941 to 1986 ation vey			
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME 1) 206/R/34 From East 206/J/21 From North				
RELATIONSHIPS WITH OTHER MONUMENTS Part of: L182					
CONDITION Fair					
DESCRIPTION 5) See L182					

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBER OLD SERIES L182	RCHME NUMBER	N.G.R. TL 37770 01038			
NAME/FUNCTION Mess Room	START DATE 1942?	END DATE			
NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC DEPICTION 1954 A - B.34 ; L182 c1960 WASC 900/94 ; L182 c1963 WASC 900/97 ; L182 1972 WASC 900/102 ; L182 1972 WASC 900/104 ; L182 1976 WASC 900/113 ; L182	DOCUMENTARY REFEREN Plans; L182 B01,B02 ; Plans an 1972 ERDE List ; BWD 1991 Mott McDonald sur 1992 RARDE List ; Mess	d Elevations 1942 vey			
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME 1) 206/J/22 From South Wes 206/P/15 From West 4) 4788/12 06.05.1993	it			
RELATIONSHIPS WITH OTHER MONUMENTS					
CONSISTS OF: L180, L181		4.			
CONDITION Fair					
DESCRIPTION					
1) CONSTRUCTIONAL MATERIAL Brick					
2) ROOF MATERIALS AND STRUCTURE Flat concrete slab					
3) POWER SOURCE Electricity					
4) DIMENSIONS i) L 32.5 ii) W 4.7 iii) HT 3.9					
5) The building is a single storey with a rectangular gr on the exterior of the building. Attached to the eas bottle store.					

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY				
number L183	OLD SERIES	RCHME NUMBER	N.G.R. TL 37760 01112	
		START DATE 1971?	END DATE	
	,			
CARTOGRA	APHIC DEPICTION	DOCUMENTARY REFEREN	NCES	
1976 V	VASC 900/113 ; L183	Plan; L183 B01 - 20/11/1971 ;	Solvent Store	
		1991 Mott McDonald sur 1992 RARDE List ; Solver	vey nt Store	
PHOTOGRA HISTORIC	АРНҮ	PHOTOGRAPHY RCHME		
		1) 206/J/9 Floor slab from sc	uth	
CONDITION	N Demolished			
1) CC	DNSTRUCTIONAL MATERIAL			
4) DI	MENSIONS i) L 11.3 ii) W 7.7			
5) Th	e building rectangular in plan it was demolished	in 1992 a concrete floor slab rema	ins	
	NUMBER L183 NAME/FUN Solvent St Solvent St ASSOCIATE RELATIONS ASSOCIATE DESCRIPTION 1 CONDITION 1 CON	NUMBER L183 OLD SERIES L183 NAME/FUNCTION Solvent Store NO PHOTS AVAID CARTOGRAPHIC DEPICTION 1976 WASC 900/113 ; L183 CARTOGRAPHY HISTORIC PHOTOGRAPHY HISTORIC RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: CONDITION Demolished DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick 3) POWER SOURCE Electricity 4) DIMENSIONS i) L 11.3 ii) W 7.7	NUMBER       OLD SERIES       RCHME NUMBER         NAME/FUNCTION       START DATE       1971?         Solvent Store       NO PHOTOGRAPHY       1971?         CARTOGRAPHIC DEPICTION       DOCUMENTARY REFEREN       Plan;         1976       WASC 900/113 ; L183       DOCUMENTARY REFEREN         1976       WASC 900/113 ; L183       Plan;         1976       WASC 900/113 ; L183       Plan;         1920       RARDE List ; Solver         1991       Mott McDonald sur         1992       RARDE List ; Solver         PHOTOGRAPHY       PHOTOGRAPHY         HISTORIC       Demolished         RELATIONSHIPS WITH OTHER MONUMENTS       ASSOCIATED WITH:         1)       CONSTRUCTIONAL MATERIAL Brick         3)       POWER SOURCE Electricity         4)       DIMENSIONS i) L 11.3 ii) W 7.7	

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THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBER OLD SERIES L185	RCHME NUMBER	N.G.R. TL 37600 01334			
NAME/FUNCTION Green Hut /Sport & Social Club /Laboratory	START DATE 1962?	END DATE			
, NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC DEPICTION c1960 WASC 900/94 ; L185 c1963 WASC 900/97 ; L185 1972 WASC 900/102 ; L185 1972 WASC 900/104 ; L185 1976 WASC 900/113 ; L185	DOCUMENTARY REFERENCES         Plans;         L185       B01 - B03 ; Plans and Elevations 1949 to 1954         1972       ERDE List ; Green Hut/Sports and Social         Club/Laboratory         1991       Mott McDonald survey         1992       RARDE List ; Green Hut/Sports and Social         Club/Laboratory				
PHOTOGRAPHY HISTORIC WASC 1453 Main Lab from rear	PHOTOGRAPHY RCHME 1) 206/F/30 From South East	t			
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH:					
CONDITION Fair					
DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Timber frame and Boards					
2) ROOF MATERIALS AND STRUCTURE Corrugated Asbestos over timber boards supported	<ol> <li>ROOF MATERIALS AND STRUCTURE Corrugated Asbestos over timber boards supported by a King post truss with braces.</li> </ol>				
3) POWER SOURCE Steam Electricity					
4) DIMENSIONS i) L 14.8 ii) W 5.97 iii) HT 4.6					
5) The building is a single storey, rectangular in plan, w and covered by timber boards. On the east elevatio single window, the west has three double windows a	n are two double and one single				

NUMBEI L186	COLD SERIES	RCHME	NUMBER	N.G.R. TL37620 01345
NAME/FU Locker	UNCTION Magazine	START 1950	DATE	END DATE
		PHOTOGRAPI AVAILABLE	ΗY	
CARTOGRAPHIC DEPICTIONDOCUMENTARY REFERENCES1954A - B.34 ; L1861972ERDE List ; Locker Magazinec1960WASC 900/94 ; L1861991Mott McDonald surveyc1963WASC 900/97 ; L1861992RARDE List ; Locker Magazine1972WASC 900/102 ; L1861992FBRC Class 1 Explosives Magazine1972WASC 900/104 ; L1861992FBRC Class 1 Explosives Magazine1976WASC 900/113 ; L1861972FBRC Class 1 Explosives Magazine				
PHOTOG HISTORI		RCHMI	GRAPHY 3 F/31 From South Wes	t
	NSHIPS WITH OTHER MONUMENTS TED WITH: L191? $/L185$ ?			
DESCRIF 1)				
2)	ROOF MATERIALS AND STRUCTURE Corrugated Asbestos over timber			
3)	POWER SOURCE Electricity			
4)	DIMENSIONS i) L 13.4 ii) W 2.6 iii) HT	2.9		
5)	The locker magazine is a single storey building, rectangular in plan with gabled ends north and south. There are two doors on the west elevation. Within the building are six explosive lockers on the west side. it is thought that the magazine was last used in 1982. The building is earthed by a copper strip attached to the walls.			

NUMBER L187	OLD SERIES	RCHME NUMBER	N.G.R. TL 37738 0119
NAME/FUNCTION Locker Magazine		START DATE 1950	END DATE 1982?
,		HOTOGRAPHY VAILABLE	
CARTOGRAPHIC DEPICT 1954 A - B.34 ; L187 c1960 WASC 900/94 ; I c1963 WASC 900/97 ; I 1972 WASC 900/102 ; 1972 WASC 900/104 ; 1976 WASC 900/113 ;	L187 L187 L187 L187	1991 Mott McDon 1992 RARDE List	Locker Magazine
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
RELATIONSHIPS WITH O ASSOCIATED WITH: L157			
CONDITION Demolished			-
DESCRIPTION 1) CONSTRUCTION Brick	VAL MATERIAL		
4) DIMENSIONS i)	L 11.5 ii) W 3.0		

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBI L188	ER OLD SERIES	RCHME NUMBER	N.G.R. TL 37750 01327		
	FUNCTION r Magazine	start date 1950	END DATE		
NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC DEPICTION         DOCUMENTARY REFERENCES           1954         A - B.34 ; L188         1972         ERDE List ; Locker Magazine           c1960         WASC 900/94 ; L188         1991         Mott McDonald survey           c1963         WASC 900/97 ; L188         1992         RARDE List ; Locker Magazine           1972         WASC 900/102 ; L188         1992         FBRC Class 1 Explosives Magazine           1972         WASC 900/104 ; L188         1992         FBRC Class 1 Explosives Magazine           1976         WASC 900/113 ; L188         1976         State			Magazine vey r Magazine		
PHOTOGRAPHY HISTORIC PHOTOGRAPHY RCHME 1) 206/G/34 From South West			st		
	IONSHIPS WITH OTHER MONUMENTS ATED WITH: L192, L149?				
CONDI	IION Good				
DESCR	IPTION				
1)	CONSTRUCTIONAL MATERIAL Brick in English bond				
2)	ROOF MATERIALS AND STRUCTURE Corrugated Asbestos				
3)	POWER SOURCE Steam Electricity				
4)	DIMENSIONS i) L 13.45 ii) W 2.6 iii) HT Gable	2.9			
5)	The building is single storeyed with arectangular gro doors on the south elevation. Internally are six me <sup>2</sup> building was maintained by steam and electric heatin earth point.	al lockers numbered '21-26', the t	emperature within the		

NUMBER L189	OLD SERIES	RCHME NUMBER	N.G.R. TL 37655 01550
NAME/FUNCTION Proof Stand		START DATE 1953-4	end date 198?
		OTOGRAPHY AILABLE	
CARTOGRAPHIC DE 1954 A - B.34 ; L c1960 WASC 900/ c1963 WASC 900/ 1972 WASC 900/ 1972 WASC 900/ 1976 WASC 900/	.189 94 ; L189 97 ; L189 102 ; L189 104 ; L189	DOCUMENTARY REFE Plans; L189 B01 - B38 ; Pla 1972 ERDE List ; Ser 1991 Mott McDonald 1992 RARDE List ; Pr 1992 FBRC Firing Ch	ns and ELevations 1954 to nsitivity survey roof Stand
PHOTOGRAPHY HISTORIC WASC 1795/1-4 Firing Aug-1955	point & damage to roof vents 5-	206/L/11 From North V 2) BB92/26131 firing poir BB92/26132 Interior firi	Vest
RELATIONSHIPS WIT	TH OTHER MONUMENTS		

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DESCRI	PTION
1)	CONSTRUCTIONAL MATERIAL
	Breeze blocks, concrete, steel piles, armour plate, earth
2)	ROOF MATERIALS AND STRUCTURE
	Concrete, armour plate
3)	POWER SOURCE
	Electricity
5)	The proof stand comprises of a number of separate features grouped around a central firing point enclosed within an earthwork traverse.
	Separated from the proof stand to the west is a single storey building with a square ground plan 3.66m x 3.66m, 2.7m in height constructed in concrete. This building was entered through a single steel door on the west side. Within the rrom a sign reads 'L189 Firing Point Charge limit 5lbs Torpex'. The interior has largely been stripped out although a few wires and gauges remain.
	Opposite to this building is the entrance to a chamber built into the earthen mound adjacent to the firing chamber. Within the west wall is an armoured glass window and below a small hole through which a control wire could pass. Although the room has largely been stripped out a few gauages and eletrical fittings remain. There is a similar chmaber on the west side that was used for the taking of photogrphs of experiments within the chamber. This chamber has an armoured glass window on its east side and a small hole for a control wire. Within the chamber is a teak topped bench and locker.
	The central chamber is entered along a staggered passage way lined with steel piles from the north. The firing chamber is constructed from steel girders and is lined with armoured plates, the roof is also of armoured plate. It is rectangular in plan $5.45 \text{m} \times 4.5 \text{m}$ . The plates within the chamber exhibit many signs of repair. To the east and west small control wire holes lead to the chambers described above, above these holes are removable armoured plated to protect the observation windows.
	On the south wall of the firing chamber a steel firing tube, bore 10cm, connects to a small additional room on the south side of the mound. This chamber is roughly built from breeze block and is connected to the mound by wing walls of cement filled sandbags. It is roofed by a scaffold frame covered by tarpaulins. There are blat scars on the breeze block wall south of the exit from the firing tube. Warnings of test firings was given by klaxons on the east side of the mound.
	Historic artefacts - gauges, klaxons, electrical objects fittings

Single storey building to west had a stack of c. 6"<sup>2</sup> x '2" steel? plates, some of which had been used for proof testing, others unmarked. All collected and stored in A210.

NUMBER	OLD SERIES	RCHME NUMBER	N.G.R.
L190a,b		Kennie Nowbek	TL 37555 01425
NAME/FUNCTION Climatic Cubicles C	Cells A & B	start date 1951	END DATE 198?
2		COGRAPHY LABLE	
CARTOGRAPHIC DEI c1960 WASC 900/S c1963 WASC 900/S 1972 WASC 900/1 1972 WASC 900/1 1976 WASC 900/1	04 ; L190 07 ; L190 02 ; L190 04 ; L190	DOCUMENTARY REFEREN Plans; L190 B01 - B08 ; Plans a 1972 ERDE List ; Climati 1991 Mott McDonald sur 1992 RARDE List ; Climati 1992 FBRC ; Class 1 Exp	and Elevations 1951-7 c Cubicles vey ttic Cubicles
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME 1) 206/C/7 From South East 206/C/8 From South East 206/C/9 From South West 2) BB92/26203 From South I BB92/26204 From North	
RELATIONSHIPS WIT OVERLIES; 132a and S	H OTHER MONUMENTS		

#### DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL Brick with reinforced concrete pillars
- 2) ROOF MATERIALS AND STRUCTURE Corrugated Asbestos on concrete rafters
- 3) POWER SOURCE Electricity
- 4) DIMENSIONS See below
- 5) The structure comprises of three separate buildings a central control room and two identical cubicle buildings.

The control room is a single storey building built of brick between the cubicles at their southern end. It is square in plan  $4.1m \times 4.1m$ , its height is 2.5m. On the south and north elevations are a single metal framed windows. On the west elevation are two metal framed windows, on the east elevation is a single door and window. An overhead wire insulator attached to the building is dated 1963.

North of the control room are the climatic cubicles separated by a narrow central courtyard. The buildings are a mirror image of one another, only the eastern cubicles L190a are described below. The western cubicles are numbered L190b.

The cubicles are a single storey structure with rectangular ground plan. They have gabled ends to the north and south with a central raised clerestory roof vent. The building has a reinforced concrete prefabricated structure of side pillars and roof supports. The end gable walls and parts of the sides are infilled by brick. Access to the cubicles is along a corridor to either side. The cubicles are brick built, they are numbered 1-8 along the east side and 9-14 along the west side.

The building is protected by a lightning conductor.

This building overlies a small wash house [132a] shown on WASC 900/84 in 1923. This inturn was overlaid by a building marked St. Cubicles about 1945 (Plan A-B.35)

0	THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
	NUMBER OLD SERIES L191	RCHME NUMBER	N.G.R. TL 37640 01348			
	NAME/FUNCTION Stability Test Laboratory	START DATE 1949-1952	END DATE			
	,	OTOGRAPHY AILABLE				
$(\cdot)$	CARTOGRAPHIC DEPICTION c1960 WASC 900/94 ; L191 c1963 WASC 900/97 ; L191 1972 WASC 900/102 ; L191 1972 WASC 900/104 ; L191 1976 WASC 900/113 ; L191	1972ERDE List ; Stat1991Mott McDonald1992RARDE List ; Stat	ns and Elevations 1949 to 1983 Dility Test Laboratory			
	PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME 1) 206/F/29 From South V	Vest			
	RELATIONSHIPS WITH OTHER MONUMENTS					
	ASSOCIATED WITH: L186, L198					
( 1	CONDITION Good					
	DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick					
	2) ROOF MATERIALS AND STRUCTURE Flat concrete slab with felt covering					
	3) POWER SOURCE Steam Electricity					
	4) DIMENSIONS i) L 11.0 ii) W 6.65 iii) HT 3	3				
	5) The building is single storeyed with a rectangula and two metal framed windows and on the nort elevation are two single doors and access into a to the building.	n elevation are three metal frame	d windows. On the south			

NUMBER L192	OLD SERIES	RCHME NUMBER	N.G.R. TL 37752 01345
NAME/FUNCTION Locker Magazin	e	START DATE 1954	END DATE
		PHOTOGRAPHY AVAILABLE	
c1963 WASC 9 1972 WASC 9 1972 WASC 9	DEPICTION 00/94 ; L192 00/97 ; L192 00/102 ; L192 00/104 ; L192 00/113 ; L192	1972 ERDE List ; 1991 Mott McDoi 1992 RARDE List	EFERENCES Plans and Elevations 1954 to Locker Magazine nald survey ; Locker Magazine ss 1 Explosives
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME 1) 206/G/33 From Sc	outh East
RELATIONSHIPS	WITH OTHER MONUMENTS H: L188, L146?		
CONDITION	Good		
<ul> <li>Brick in E</li> <li>ROOF M. Corrugate</li> <li>POWER Steam EI</li> <li>DIMENSI</li> <li>DIMENSI</li> <li>The locke is entered 12', each I</li> </ul>		ing rectangular in plan with gable the south elevation. Internally	are five metal lockers numbered

THE I	THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY				
NUMBE L193	ER OLD SERIES	RCHME NUMBER	N.G.R. TL 37782 01235		
	UNCTION Magazine	START DATE 1954	END DATE		
NO PHOTOGRAPHY AVAILABLE					
CARTO c1960 c1963 1972 1972 1976	GRAPHIC DEPICTION WASC 900/94 ; L193 WASC 900/97 ; L193 WASC 900/102 ; L193 WASC 900/104 ; L193 WASC 900/113 ; L193	DOCUMENTARY REFERENCES Plan; L193 B01 - 24/8/1983 ; Electrical Heating Layout 1972 ERDE List ; Locker Magazine 1991 Mott McDonald survey 1992 RARDE List ; Locker Magazine			
PHOTOGRAPHY HISTORIC PHOTOGRAPHY RCHME 1) 206/G/27 From South					
RELATI	ONSHIPS WITH OTHER MONUMENTS				
ASSOCL	ATED WITH: L151, L152				
CONDII	TON Good				
DESCRI 1)	DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick				
2)	ROOF MATERIALS AND STRUCTURE Corrugated Asbestos				
3)	POWER SOURCE Steam Electricity				
4)	DIMENSIONS i) L 8.32 ii) W 2.59 iii) HT 3.0				
5)	The magazine is single storeyed and is rectangular in through two doors on the west side. Internally are the wooden shelf along the east wall and below this heat	hree metal explosive lockers num			

Т	HE ROYAL GUNPOWDER FACTORY	' - WALTHAM ABB	EY		
	NUMBER OLD SERIES	RCHME NUMBER	N.G.R. TL 37705 01420		
L	AME/FUNCTION Locker magazine Chemical Store	START DATE 1954	end date 198?		
	NO PHOTO AVAIL				
c1 c1 19 19	ARTOGRAPHIC DEPICTION 1960 WASC 900/94 ; L194 1963 WASC 900/97 ; L194 972 WASC 900/102 ; L194 972 WASC 900/104 ; L194 976 WASC 900/113 ; L194	DOCUMENTARY REFEREN 1972 ERDE List ; Locker 1991 Mott McDonald sur 1992 RARDE List ; Chem 1992 FBRC ; Chemical S	Magazine vey ical Store		
	HOTOGRAPHY IISTORIC	PHOTOGRAPHY RCHME 1) 206/G/37 From South Wes	st		
	ELATIONSHIPS WITH OTHER MONUMENTS SSOCIATED WITH: L134, L137, L166				
C	ONDITION Fair				
1)	DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick				
2)	) ROOF MATERIALS AND STRUCTURE Corrugated Asbestos and Translucent Plastic				
3)	) POWER SOURCE Steam Electricity				
4)	) DIMENSIONS i) L 8.33 ii) W 2.6 iii) HT Gable 2.	85			
5)	) The building is single storeyed with a rectangular gro was entered through two doors to the west. The con of the metal lockers and the insertion of a number of	version of the magazine into a s			

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
RCHME NUMBER	N.G.R. TL 37670 01550				
START DATE 1955	END DATE 198?				
NO PHOTOGRAPHY AVAILABLE					
DOCUMENTARY REFERENCES Plan; L195 B01 - 9/8/1955 ; New single Locker Magazi 1972 ERDE List ; Locker Magazine 1991 Mott McDonald survey 1992 RARDE List ; Locker Magazine					
PHOTOGRAPHY HISTORIC PHOTOGRAPHY RCHME 1) 206/B/35 From South East					
·					
DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick					
2) ROOF MATERIALS AND STRUCTURE To the North Corrugated Plastic, to the South Corrugated Asbestos					
POWER SOURCE Electricity					
5) The magazine is a single storey building with a rectangular ground plan, it has gabled ends east and west. On the eastern elevation is a double louvred door providing access to the southern room. A door on the north wall provovides access onto the north room a sign on the door reads 'Explosives Locker'. The magazine served firing point L189.					
	RCHME NUMBER START DATE 1955 OGRAPHY LABLE DOCUMENTARY REFEREN Plan; L195 B01 - 9/8/1955 ; Ne 1972 ERDE List ; Locker 1991 Mott McDonald sur 1992 RARDE List ; Locker PHOTOGRAPHY RCHME 1) 206/B/35 From South Eas: rugated Asbestos angular ground plan, it has gabled g access to the southern room. A				

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBER OLD SERIES L196	RCHME NUMBER	N.G.R. TL 37589 01389			
NAME/FUNCTION Acid Store Locker Magazine	START DATE 1954	END DATE 198?			
NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC DEPICTION c1960 WASC 900/94 ; L196 c1963 WASC 900/97 ; L196 1972 WASC 900/102 ; L196 1972 WASC 900/104 ; L196 1976 WASC 900/113 ; L196	DOCUMENTARY REFEREN Plan; L196 B01 - 24/12/1954 ; Laboratory 1972 ERDE List ; Acid St 1991 Mott McDonald sur 1992 RARDE List ; Locke	Acid Store for Main ore vey			
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME 1) 206/C/1 From South West				
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: L122					
CONDITION Good					
DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick in English bond					
2) ROOF MATERIALS AND STRUCTURE Concrete slab					
3) POWER SOURCE Electricity					
	4) DIMENSIONS i) L 2.75 ii) W 2.44 iii) HT 2.55				

(

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBER OLD SERIES L197 9	RCHME NUMBER	N.G.R. TL 37833 01186			
NAME/FUNCTION Air Raid Shelter Store	START DATE 1942?	END DATE 1945			
NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC DEPICTIONDOCUMENTARY REFERENCES> 1940WASC 900/91A ; L197Plan; L1971954A - B.34 ; L197L197c1960WASC 900/94 ; L1971972c1963WASC 900/97 ; L19719721972WASC 900/102 ; L19719721972WASC 900/104 ; L19719911976WASC 900/113 ; L19719911976WASC 900/113 ; L1971992RARDE List ; Store/Air Raid Shelter semi cylindricalcylindrical					
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME				
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH:					
CONDITION Demolished					
DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Concrete 3) POWER SOURCE Electricity 4) DIMENSIONS i) L 9.12 ii) W 3.8 5) The building has been demolished a concrete floor slab remains. This building is presumed to have been identical in form to H11 and RCHME 167					

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NUMBER L198	OLD SERIES	RCHME NUMBER	N.G.R. TL 37644 01334
NAME/FUNCTION Stability Laborate	ory	START DATE 1956	END DATE 198?
		PHOTOGRAPHY AVAILABLE	
c1963 WASC 90 1972 WASC 90 1972 WASC 90	EPICTION 0/94 ; L198 0/97 ; L198 0/102 ; L198 0/104 ; L198 0/113 ; L198	1972 ERDE List 1991 Mott McDo 1992 RARDE Lis	REFERENCES ; Plans and Elevations 1956 to 194 ; Laboratory onald survey st ; Laboratory ass 1 Explosives
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME 1) 206/F/28 From So	outh West
RELATIONSHIPS W ASSOCIATED WITT	TTH OTHER MONUMENTS H: L191		
DESCRIPTION 1) CONSTRU Brick 2) ROOF MA Flat concre 3) POWER S Steam Ele 4) DIMENSIO 5) The buildin in the nort surrounded	ctricity DNS i) L 9.2 ii) W 10.7 iii) HT ng is a single storey with a rectang n elevation is a single door. To t	2.95 gular plan. The east and west el he south are double glass doors ed roof lights. Attached to the	evations of the building are featurel giving access into a central court east and west walls of the building a

0	THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					LTHAM ABB	EY
	number L199	OL	D SERIES		RCHME	NUMBER	N.G.R. TL 37664 01592
	NAME/FUI Proof Sta				START 1 1959	DATE	end date 198?
			Ν	NO PHOTO AVAIL		IY	
0	c1960 c1963 1972 1972	APHIC DEPICTION WASC 900/94 ; L199 WASC 900/97 ; L199 WASC 900/102 ; L199 WASC 900/104 ; L199 WASC 900/113 ; L199			DOCUM Plans; L199 1972 1991 1992 1992	ENTARY REFEREN B01 - B10 ; Plans a ERDE List ; Small & Mott McDonald sur RARDE List ; Proof FBRC ; Firing Chan	nd Elevations 1956 to 1975 Sensitivity vey Stand
	PHOTOGE HISTORIC				PHOTO( RCHME 1)206/L/		
	RELATIO	NSHIPS WITH OTHER	. MONUMEN	ITS			
( 1	ASSOCIAT	TED WITH: L189, L195	;				
	CONDITIC	DN Fair					
	· ·	TON CONSTRUCTIONAL M Concrete, steel girders, co		I.			
	2) H	ROOF MATERIALS AN	ND STRUCTU	URE			
		POWER SOURCE Electricity					
		DIMENSIONS i) L	ii) W	iii) HT			
	e		of concrete an	d has a single			otruding walls. The southern I firing chamber is constructed

#### THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY OLD SERIES NUMBER RCHME NUMBER N.G.R. TL 37536 01780 96 NAME/FUNCTION START DATE END DATE 1861 Box house Dining room Washing up house NO PHOTOGRAPHY **AVAILABLE** CARTOGRAPHIC DEPICTION DOCUMENTARY REFERENCES 1865 WASC 900/38 + SUPP5 975 ; Box House Plans: WASC 900/41A ; Box House B01,B02 ; Plans and Elevations 1861,1871 1865 96 WASC 900/42 ; Box House 1865 1897 WASC 900/53C 1908 RGPF Ledger WASC 1509 + WASC 1764 ; c1910 WASC 900/65 ; Dining Room Dining Room built 1861 p9 c1910 WASC 900/79 ; Dining Room c1925 RGPF Ledger WASC 1680 ; Dining Room RGPF Ledger WASC 1508 ; Dining Room WASC 900/70 c1945 1917 1917 WASC 900/72 ; 96 WASC 900/74 ; 96 1992 RARDE List ; Dining House 1919 WASC 900/80 : 96 c1920 file Photog. 1923 WASC 900/84 ; 96 > 1940 WASC 900/91A; 96 1954 A - B.34 ; 96 WASC 900/94 ; 96 c1960 c1963 WASC 900/97 ; 96 WASC 900/102 ; 96 1972 WASC 900/104 ; 96 1972 WASC 900/113; 96 1976

PHOTOGRAPHY

1) 206/J/5 From east

206/J/7 From North 206/J/8 Detail of window 206/R/24 From east

206/R/25 North elevation from east

206/J/6 Detail of window showing blackout shutters

RCHME

PHOTOGRAPHY HISTORIC

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH:

CONDITION Poor

#### DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL Brick
- 2) ROOF MATERIALS AND STRUCTURE Hipped, roofing felt over timber boards
- 3) POWER SOURCE Steam heating and electricity
- 4) DIMENSIONS i) L 17.1m ii) W 7.7m iii) HT eave 3m

5) The dining room is a single storey building with a hipped roof. A number of additions have been made to the original core of the building. A brick lobby has been added to the eastern end. A timber framed outshot covered by asbestos sheeting attached to the northern wall probably dates from the second world war. Within this room a series of pigeon holes still retained address cards to other explosives factories and a pocket calendar from 1944. All the window openings were protected by canvas blackout shutters.

Originally the building was heated by a number of fireplaces subsequently blocked. In its last phase the building was steam heated, the pipe was attached to the northern wall along with a pressure guage 0-100lbs/sqin.

Historic artefacts - Contraband box near east end, pressure guage on north wall, other items may survive within the building.

Cleaned out leaving collapsing roof supported by props. Connection of artefacts stored in L168.

NUMBEROLD SERIES103L102, L103	RCHME NUMBER	N.G.R. TL 37675 01700
NAME/FUNCTION Corning House No.2 7, 97,98 ReamE Press House No.2 114	START DATE 1806-19 c1850 hv: 1922	END DATE 1819
Press House No.1	by 1923	c1941
NO PHOTO AVAIL	117	e also Maroon SC Drying Stops 8 ORd 76 No 4 531
CARTOGRAPHIC DEPICTION	DOCUMENTARY REFERENCES	
<ul> <li>1806 WO78/1352</li> <li>1827 WASC 900/04 + MPHH 271 ; site of Former Corning House powered by Horses</li> <li>1830 PRO MP11.15 Drayson; Site of No.2 Corning House</li> <li>1830 WO55 2694</li> <li>1830 WASC 900/05</li> <li>c1830 WASC 900/06</li> <li>c1835 WASC 900/10</li> <li>1865 WASC 900/10A</li> <li>1865 WASC 900/14</li> <li>1865 WASC 900/14</li> <li>1865 WASC 900/41 ; Washing up House and Press House</li> <li>1865 WASC 900/42</li> <li>1897 WASC 900/42</li> <li>1897 WASC 900/5; Press House</li> <li>c1910 WASC 900/79 ; Press House</li> <li>1917 WASC 900/70 ; Pump and Press House</li> <li>1917 WASC 900/74 ; 103, 104</li> <li>c1920 WASC 900/84 ; 103</li> <li>&gt; 1940 WASC 900/91A ; 103</li> <li>1954 A - B.34 ; L102, L103</li> <li>c1960 WASC 900/97 ; L102, L103</li> <li>c1963 WASC 900/102 ; L102, L103</li> <li>1972 WASC 900/104</li> <li>1976 WASC 900/113</li> </ul>	<ul> <li>DOCUMENTARY REFERENCES</li> <li>Plans;</li> <li>Plans;</li> <li>IN7 Philpot, of Stanford Street purchased at the late sale of Ordnance property all the Corning Houses, Press Houses etcMr Philpot offers £50 for the machinery of Nos 2 and 3 Corning Houses, which cost the Board £9000. In good state of preservation' Winters 1887 p86</li> <li>1830 Statement of Property WO55 2351</li> <li>1841 Statement of Property WO55 2356</li> <li>1857 Baddeley p14-15 Pressing the Meal by Hydraulic Press. 'The pumps are now set in motion by a water wheel' Baddeley p15</li> <li>1908 RGPF Ledger WASC 1509 + WASC 1764 ; Gunpowder Press House built 1870 p10</li> <li>c1925 RGPF Ledger WASC 1508 ; Gunpowder Press House</li> <li>c1945 RGPF Ledger WASC 1508 ; Gunpowder Press House</li> <li>1972 ERDE List ; Pump House</li> <li>1991 Mott McDonald survey</li> <li>1992 RARDE List ; Pump House</li> <li>WATMANY, A.</li> </ul>	

PHOTOGRAPHY HISTORIC WASC 788 GP press house No1 1972 x2 WASC 789 GP press house No1 1940 x10 WASC 1517 Gen views 05.1986 x3 WASC 1543/1-4 Views of Gunpowder press house WASC 1543/10 Traverse wall WASC 1655/58-65 No 1 press house July 1940 WASC 1543/5-9 Gunpowder press house water wheel PRO Supply 5/863 290-1, 294-6, 299 July 1940	<ul> <li>PHOTOGRAPHY RCHME</li> <li>1) 206/U/21 From west 206/U/22 From west 206/U/23 From north west 206/F/16 29 Jan 1993 Gunpowder press from West 206/F/17 29 Jan 1993 Water wheel for Hydraulic pump from South West 206/F/18 29 Jan 1993 Hydraulic gunpowder press from South 206/F/19 29 Jan 1993 Danger Building electric light 206/L/36 09 Mar 1993 Danger Building Electric light 206/L/37 09 Mar 1993 Gunpowder Press from West 206/N/24 12 Mar 1993 Press house from South</li> <li>2) BB92/26197 103 &amp; 104 Water Wheel House and Hydraulic Gunpowder Press, view from West. BB92/26198 104 Water Wheel House for Hydraulic Pump,view from South West. BB92/26199 104 Pit Wheel view from North East. BB92/26200 104 Hydraulic Pump view from North East.</li> <li>BB92/26201 104 Detail of Water Wheel to Hydraulic Pump view from West. BB92/26202 103 Hydraulic Gunpowder Press view from South East.</li> <li>Wheel Public Gunpowder Press view</li> </ul>
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: 103/1, 104	
CONDITION Fair	

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL Brick formerly carrying a timber frame
- 2) ROOF MATERIALS AND STRUCTURE
- POWER SOURCE Waterwheel powering a hydraulic pump, latterly supported by an electric motor and pump, electric lighting
- 4) DIMENSIONS i) L 8.9m ii) W 7.1

5) The gunpowder press house was fired probably during the 1940s. The below floor brick foundations, in English bond, survive to their full height. The foundations are divided into three cells, the northern and southern cells are 2.1m in width and the central cell is 2m in width.

In the centre of the building are the substantial remains of the gunpowder press. The process is first described by Baddeley in <u>Pamphlet on the Manufacture of Gunpowder</u> 1857. A similar press is illustrated and described Smith F M 1871 <u>A Handbook of the Manufacture and Proof of Gunpowder</u> 45-49 and Wardell W H 1888 <u>Handbook of Gunpowder and Guncotton</u> 49-50, although the press is of a slightly different design. Oscar Guttman 1895 in <u>The Manufacture of Explosives</u> however illustrates a press that appears to be identical to the one remaining <u>insitu</u>.

Scattered around the building are fragments of slate upto 1cm in thickness some of which retain brass screws. Also lying loose in the building was a danger building light formerly attached to the outside of the window (similar to the one illustrated in Proc Inst Civil Engrs V.110 1891 p373). These lights are clearly visible in the photographs in Supply 5/863.

Historic Artifacts- a considerable number of fittings relating to this building survive on the surface. Archaeological advice should be sort about its recording and recovery. During clearance work in the canal basin to the west of the press house copper press plates and the iron gearing to the pebble powder cutting machine were found along with a copper chisel and other smaller artefacts. Nb further deposits containing important artefacts may still remain in this canal basin.

Subsequent scrapes proved fruitless. Interior of Press House excavated Jan 55. Much state, some coppe nails/screws. Part of a wheel and other miscellaneous material. Stored in LI68.

Jangerlight transported and stored in L168.

THE ROYAL GUNPOWDER FACTOR	Y - WALTHAM ABB	EY
NUMBER OLD SERIES 103/1	RCHME NUMBER	N.G.R. TL 37675 01693
NAME/FUNCTION Traverse	START DATE 1806-18	END DATE
	OGRAPHY LABLE	
CARTOGRAPHIC DEPICTION         1827       WASC 900/04 + MPHH 271         1830       WO55 2694         1830       WASC 900/05         c1830       WASC 900/06         c1835       WASC 900/07         1861-1868       WASC 900/10A         1865       WASC 900/13         1865       WASC 900/14         1871       SUPP5 682         1865       WASC 900/41A         1865       WASC 900/42         1897       WASC 900/53C         c1910       WASC 900/53C         c1910       WASC 900/79         1917       WASC 900/70         1917       WASC 900/72         1919       WASC 900/74         c1920       WASC 900/74         c1920       WASC 900/84         > 1940       WASC 900/91A         1954       A - B.34         c1960       WASC 900/97         1972       WASC 900/102         1972       WASC 900/104         1976       WASC 900/113	DOCUMENTARY REFEREN Plans; L102 B01,B02 ; Plans an 1908 RGPF Ledger WAS Traverse built 1870 c1925 RGPF Ledger WAS c1945 RGPF Ledger WAS	d Elevations 1894 C 1509 + WASC 1764 ; p10 C 1680 ; Traverse
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME See 103 and 104	
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: 103, 104 CONDITION Fair		

### DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL Brick
- 2) ROOF MATERIALS AND STRUCTURE
- 3) POWER SOURCE None
- 4) DIMENSIONS i) L 14.5m ii) W 4.6m iii) HT estimate 6m
- 5) The traverse is oval in shape and is constructed with battered brick walls which are in part cement redendered. No indication is present of the interior filling of the traverse.

The traverse appears to have been constructed during the first years of the nineteenth century. It was originally associated with a gunpowder corning mill that then fell into disuse. Around 1850 the mill site was reused for the siting of a water powered hydraulic pump 104 and a gunpowder press 103.

NUMBEROLD SERIES104L102, L103	RCHME NUMBER	N.G.R. TL 37675 01700	
NAME/FUNCTION Corning House No.2 Pump house for Press House No.2 Pump house for Press House No.1	START DATE 1806-18 c1850 by 1923	END DATE 1819 by 1923 1941	
NO PHOTO AVAIL		NCES	
1827       WASC 900/04 + MPHH 271 ; site of Former Corning House powered by Horses         1830       PRO MP11.15 Drayson Site of Corning House No.2         1830       WO55 2694         1830       WASC 900/05         c1830       WASC 900/06         c1835       WASC 900/07         1861-1868       WASC 900/10A         1865       WASC 900/14         1867       WASC 900/72 ; Press House         1910       WASC 900/72 ; 103,104         1917       WASC 900/72 ; 103,104         1919       WASC 900/84	Plans;       L102,L103       B01,B02         1807       Statement of Proper         1830       Statement of Proper         1841       Statement of Proper         1851       Statement of Proper         1857       Baddeley Pressing Press p14-15         1908       RGPF Ledger WAS Gunpowder Press H         c1925       RGPF Ledger WAS House	; Plans and Elevations c1 erty W055 2694 erty W055 2351 erty W055 2856 erty W055 3027 the Meal by the Hydraulio C 1509 + WASC 1764 ; House built 1870 p10 C 1680 ; Gunpowder Press C 1508 ; Gunpowder Press House vey	

PHOTOGRAPHY HISTORIC WASC 788 GP press house No1 1972 x2 WASC 789 GP press house No1 1940 x10 WASC 1517 Gen views 05.1986 x3 WASC 1543/1-4 Views of Gunpowder press house WASC 1543/10 Traverse wall WASC 1655/58-65 No 1 press house July 1940 WASC 1655/58-65 No 1 press house water wheel PRO Supply 5/863 297 Shows starting mechanism near fly wheel PRO Supply 5/863 298 Detail of pump and interior	PHOTOGRAPHY RCHME 1) 206/U/21 From west 206/U/22 From west 206/F/16 29 Jan 1993 Gunpowder press from West 206/F/17 29 Jan 1993 Water wheel for Hydraulic pump from South West 206/F/18 29 Jan 1993 Hydraulic gunpowder press from South 206/F/19 29 Jan 1993 Danger Building electric light 206/L/36 09 Mar 1993 Danger Building electric light 206/L/37 09 Mar 1993 Gunpowder Press from West 206/L/37 09 Mar 1993 Press house from South 2) BB92/26197 103 & 104 Water Wheel House and Hydraulic Gunpowder Press, view from West. BB92/26198 104 Water Wheel House for Hydraulic Pump,view from South West. BB92/26199 104 Pit Wheel view from North East. BB92/26200 104 Hydraulic Pump view from North East. BB92/26201 104 Detail of Water Wheel to Hydraulic Pump view from West. BB92/26202 103 Hydraulic Gunpowder Press view from South East. Site Pustog.
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: 103/1, 103	
CONDITION Fair	

# DESCRIPTION CONSTRUCTIONAL MATERIAL Brick ROOF MATERIALS AND STRUCTURE The roof is barrel shaped, formed from corrugated iron (possibly of nineteenth century date) fixed to L irons running along the top of the wall and braced by two horizontal tension rods. POWER SOURCE Water powering a hydraulic pump latterly supplemented by an electric pump. Electric lighting probably of late nineteenth century date. DIMENSIONS i) L 9.55m ii) W 5.35 iii) HT estimate 7.5m The pump house is a single storey brick building, painted in small figures on its exterior is its former number

The pump house is a single storey brick building, painted in small figures on its exterior is its former number L103. The pump house is divided into two cells the larger eastern cell 5.75m x 4.45m and smaller western cell 2.45m x 4.45m.

The smaller cell was originally a shoe room and was entered from the canal side through a single door and was lit by a single window. The room was originally timber lined, the positions of charred fixing timbers may be made out on the wall. Artificial lighting was originally supplied by a danger building light suspended on the outside of the window. The upper part of the light some of the iron pipe that encased the wiring survives fixed to the exterior of the building. This room was subsequently converted to house an electrically powered hydraulic pump to supplement the water wheel. The sandstone base and four mounting bolts to this pump survive. Pipes running at floor level from this room to the pump room are thought to be the remains of the steam heating system.

The larger cell housed the water powered hydraulic pump. This room was entered from the shoe room originally across a fender (L.102.B.02), defining a dirty and clean area, and through a door on the north east corner. The room was lit by a single window in the eastern gable. In the centre of the room are the largely intact remains of the water driven hydraulic pump. This is believed to be the only surviving water wheel driven pump in England. Horizontal holes in the wall mark the former positions of timbers to which a wall covering was fixed.

The water driven hydraulic pump was powered by a water wheel on the southern side of the building. The water to turn the wheel was brought along a canal from Millhead Stream RCHME 294 through the wheel before tipping into the tail race and into the old River Lee. The wheel is a low breast shot of cast iron construction. This was formerly covered by a corrugated iron roof.

Above the tailrace the brickwork is supported by sheets of thick slate this inturn supported a toilet cubicle.

Historic Artefacts: All fittings, corrugated iron roof may be of nineteenth century date and further advice ought to be sort.

THE ROYAL GUNPOWDER FACTORY	( - WALTHAM ABB	EY
NUMBER OLD SERIES 105	RCHME NUMBER	N.G.R. TL 37545 01660
NAME/FUNCTION Press House Magazine	START DATE 1807-27	end date 194?
NO PHOTO AVAII	DGRAPHY LABLE	
CARTOGRAPHIC DEPICTION	DOCUMENTARY REFEREN	NCES
<ul> <li>1806 WO78/1352</li> <li>1827 WASC 900/04 + MPHH 271</li> <li>1830 WO55 2694</li> <li>1830 WASC 900/05</li> <li>c1830 WASC 900/06</li> <li>c1835 WASC 900/07</li> <li>1861-1868 WASC 900/10A</li> <li>1865 WASC 900/14</li> <li>1871 SUPP5 682</li> <li>1865 WASC 900/41 ; Press House Magazine</li> <li>1865 WASC 900/41 ; Press House Magazine</li> <li>1865 WASC 900/42 ; Press House Magazine</li> <li>1865 WASC 900/53C</li> <li>c1910 WASC 900/53C</li> <li>c1910 WASC 900/79</li> <li>1917 WASC 900/72 ; 105</li> <li>1919 WASC 900/74 ; 105</li> <li>c1920 WASC 900/74 ; 105</li> <li>s1940 WASC 900/91A ; 105</li> <li>s1954 A - B.34</li> <li>c1960 WASC 900/97</li> <li>s1972 WASC 900/102</li> <li>s272 WASC 900/104</li> <li>s435 WASC 900/104</li> <li>s455 WASC 900/113</li> </ul>	Press House Maga: c1925 RGPF Ledger WAS Magazine	
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME Sile Photog-	
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: 106, 107, 108	0	
CONDITION Demolished		
DESCRIPTION 5) No surface remains are visible. The survival of the magazine may imply a below ground survival.	-	of 106 adjacent to this
Remains uncovered May 19: Small magazine with thick timber revetted canal Petth Fill of foundations removed + bo	walls and por	

WS Atkins

1

# memorandum

Subject REMAINS OF MAGAZINE 105 + 06	То	+10	105 +	ZINE	MAGA	OF	<b>REMAINS</b>	Subject
--------------------------------------	----	-----	-------	------	------	----	----------------	---------

**Graham Vincent** 

 From
 Bob Watts

 Date
 19th July 1995

 Ref
 E5275/62/1/01

Graham,

Please complete removal of deposits in foundations. When complete fill with approximately 300mm thick ballast.

Regards

BOB WATTS.

Copy:- Steve Chaddock

THE ROYAL GUNPOWDER F.	ACTORY - WALTHAM A	ABBEY
NUMBER OLD SERIES 106	RCHME NUMBER	N.G.R. TL 37535 01656
NAME/FUNCTION Press House Magazine	START DATE 1865-70	end date 194?
	NO PHOTOGRAPHY AVAILABLE	
CARTOGRAPHIC DEPICTION	DOCUMENTARY REP	FERENCES
1865       WASC 900/38 + SUPP5 975 ; Press         Magazines         1865       WASC 900/41A ; Press House Magazines         1865       WASC 900/42 ; Press House Magazines         1865       WASC 900/53C         c1910       WASC 900/65 ; Receiving Magazines         c1910       WASC 900/79         1917       WASC 900/70         1917       WASC 900/72 ; 106         1919       WASC 900/74 ; 106         c1920       WASC 900/74 ; 106         1923       WASC 900/80 ; 106         1923       WASC 900/84 ; 106         > 1940       WASC 900/91A ; 106         1954       A - B.34         c1960       WASC 900/91         1972       WASC 900/102         1972       WASC 900/104         1976       WASC 900/113	azines c1925 RGPF Ledger ines c1945 RGPF Ledger Magazine c1945 RGPF Ledger	r WASC 1509 + WASC 1764 ; Magazine built pre 1870 p11 r WASC 1680 ; Press House r WASC 1508 ; Press House
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME Sile Pustog	
RELATIONSHIPS WITH OTHER MONUMEN ASSOCIATED WITH: 105, 107, 108	VITS O	
CONDITION Demolished		
DESCRIPTION		
	th wall of this building is visible as wall f	
Remains uncovered asphalt covering part	y May 1995. Conc. by intoct	ele floor with

# THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

.

NUMBER	OLD SERIES 107	RCHME NUMBER	N.G.R. TL 37482 01660
NAME/FUNCTION Moulding house N Cordite blending I Blank Expense M Tetryl Packing Ho	house No.3 agazine	START DATE 1884-5 1898? 1910? 1914?	END DATE 1898? 1910? 1914? 1945?

### NO PHOTOGRAPHY AVAILABLE

CARTOGRAPHIC DEPICTION	DOCUMENTARY REFERENCES
1865       WASC 900/38 + SUPP5 975 ; Moulding House No.4         1865       WASC 900/41A ; Moulding House No.4         1897       WASC 900/53C         c1900       WASC 900/42 ; No.3 Cordite Blending House         c1910       WASC 900/65 ; Blank Expense Magazine         c1910       WASC 900/79 ; Blank Expense Magazine         1917       WASC 900/70 ; Blank Expense Magazine         1917       WASC 900/72 ; 107         1919       WASC 900/74 ; 107         c1920       WASC 900/80 ; 107         1923       WASC 900/94 ; 107         c1960       WASC 900/91A ; 107         c1960       WASC 900/97 ; 107         1972       WASC 900/102         1972       WASC 900/104         1976       WASC 900/113	<ul> <li>Plan;</li> <li>1884 O.107.B.02 17.06.1884 No3 Moulding House 108 11 i place No4 Moulding House 108 11 i place No4 Moulding House 1.1.107 an addition</li> <li>107 B01 - 30/4/1894 ; Moulding House No.4</li> <li>1908 RGPF Ledger WASC 1509 + WASC 1764 ; Blank Expense Magazine built 1884-5 p11</li> <li>c1925 RGPF Ledger WASC 1680 ; Blank Expense Magazine</li> <li>c1945 RGPF Ledger WASC 1508 ; Blank Expense Magazine</li> <li>1992 RARDE List ; Tetryl Packing House</li> </ul>
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME 1) 206/F/10 28 Jan 1993 From South East 206/F/11 28 Jan 1993 Hydraulic Press Base from South East 206/F/12 28 Jan 1993 Detail of Hydraulic press base 206/F/13 28 Jan 1993 Detail of Hydraulic press base 206/N/23 12 Mar 1993 Detail of Danger Building lighting 206/Q/28 16 Mar 1993 From West 206/Q/29 16 Mar 1993 From South 2) BB92/26220 107 and 108 Moulding House view from South East.

### **RELATIONSHIPS WITH OTHER MONUMENTS**

ASSOCIATED WITH: L102, L103, 105, 106, 108a ABUTS: 108

CONDITION Good

### DESCRIPTION

- CONSTRUCTIONAL MATERIAL 1) Cast concrete
- ROOF MATERIALS AND STRUCTURE 2) Galvanised sheet
- POWER SOURCE 3) (i) Hydraulic (ii) Electricity
- DIMENSIONS 107 and 108 i) L 26.4m ii) W 12.8m iii) HT estimate 6m 4)
- Buildings 107 and 108 are described together 5)

The Press houses were screened by a cast concrete E shaped traverse. Two construction phases are visible in the traverse, a near vertical joint on the north side marks where 107 abuts against 108. It is also noticeable that the concrete of 107 is more roughly finished than 108.

The press house each sat within one of the compartments, the press houses were timber framed structures set on brick foundations. In 107 the foundations measure 7.65m x 6.33m. Within the building is a large concrete block placed slightly off centre, presumably the press mounting block. In 108 the brick foundations measure 7.78m x 6.3m. Within this building in a similar off centre position is a large cast iron press base set on a concrete block. It is presumed that the press base would have been underneath the floor when the building was in operation.

The press houses were served by a canal and landing stage to the south and were served by four expense magazines L102, L103, 105 and 106. The building could also be entered through two large openings on the north wall.

rais

10)

Tomoe

Trenda + Within the building are fragments of galvanised roof sheeting and galvanised gutters. Attached to the north wall of the building are conical shaped insulators, of late nineteenth century type, and a cast iron switch box. All the wiring serving the building was encased in small bore metal pipes.

Historic Artifacts- Press base, metal building fittings

Cleaned out March 95. Some lead weights recovered.

NUMBER	OLD SERIES	RCHME	NUMBER	N.G.R. TL 37467 01658
NAME/FUNCTION Moulding House Cordite Blending Tetryl Packing Ho	House No.3	START I 1882-3 1898? 1917?	DATE	END DATE 1898? 1917? 1945
		TOGRAPH MLABLE	Y	
House No.4 1865 WASC 900 1865 WASC 900 1897 WASC 900 c1910 WASC 900 c1910 WASC 900 1917 WASC 900 1917 WASC 900 1919 WASC 900 c1920 WASC 900 1923 WASC 900	0/38 + SUPP5 975 ; Moulding 0/41A ; Moulding House No.4 0/42 ; No.3 Cordite Blending House 0/53C 0/65 0/79 0/70 0/72 ; 108 0/74 ; 108 0/80 ; 108 0/84 ; 108 C.E Magazine 0/91A ; 108 108 0/94 ; 108 0/97 0/102 0/104	1908 c1925 c1945	Packing House bui RGPF Ledger WAS	C 1509 + WASC 176 It 1884-5 p11 C 1680 ; Packing Ho C 1508 ; Packing Ho
PHOTOGRAPHY HISTORIC		206/C/ 206/F/1 206/F/1 South E 206/Q/ 206/Q/ 2) BB92/2 South	18 02 Feb 1993 Hy 19 02 Feb 1993 Hy 0 28 Jan 1993 Fro 1 28 Jan 1993 Hyd ast 28 16 Mar 1993 Fro 29 16 Mar 1993 Fro 26220 107 and 108 East.	m South East draulic Press Base fro m West

\$'e'

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: 105, 106, L102, L103, 108a ABUTTED BY: 107

CONDITION Good

DESCRIPTION

5) Described with 107

Cleaned out March 95.

NUMBER	OLD SERIES 108a	RCHME NUMBER	N.G.R. TL 37448 0166
NAME/FUNCTION Earth closet		START DATE 1914-20	END DATE
		PHOTOGRAPHY AVAILABLE	
CARTOGRAPHIC I	PEPICTION	DOCUMENTARY R	EFERENCES
1919         WASC 90           c1920         WASC 90           1923         WASC 90           > 1940         WASC 90           1954         A - B.34           c1960         WASC 90           c1963         WASC 90           1972         WASC 90           1972         WASC 90           1976         WASC 90	0/80 0/84 0/91A 0/94 0/97 0/102 0/104		ger WASC 1680 ; EC ger WASC 1508 ; EC
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME	
			1993 From North West
RELATIONSHIPS W	TTH OTHER MONUMENTS		
ASSOCIATED WIT	H: 107, 108		
CONDITION	Good		
DESCRIPTION 1) CONSTRU Brick	CTIONAL MATERIAL		
2) ROOF MA Corrugated	TERIALS AND STRUCTURE asbestos		
3) POWER S None	OURCE		
4) DIMENSI	DNS i) L 2.83m ii) W 1.37m iii	) HT 2.25m	
	o the earth closet was from the he bucket.	north, a small door at the base	e of the east side was used f
		across sonth	

NAME/FUNCTIONSTART DATEENExperiment House187919	.R. 237680 01573 D DATE 203 21917
Experiment House       1879       19         re-erected on a new site       1903       by         NO PHOTOGRAPHY AVAILABLE         CARTOGRAPHIC DEPICTION         1902 Nathan       Proc. Court Enquirey attending an explosion RGPF Waltham Abbey 15-       1908 RGPF Ledger WASC 1509 ; p	003
CARTOGRAPHIC DEPICTION       DOCUMENTARY REFERENCES         1902 Nathan       Proc. Court Enquirey attending an explosion RGPF Waltham Abbey 15-       1908 RGPF Ledger WASC 1509 ; p	
1902 Nathan       Proc. Court Enquirey attending an explosion RGPF Waltham Abbey 15-       1908 RGPF Ledger WASC 1509 ; p         built 1879 re-erected on a m	
explosion RGPF Waltham Abbey 15- built 1879 re-erected on a n	
1995 - WALD002	
PHOTOGRAPHY HISTORIC PHOTOGRAPHY RCHME Sile Phostog.	
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: LIOB? + Tetyl contam (+ wooden structure	re)going south.
CONDITION Demolished	-
DESCRIPTION 5) The experiment house was erected on this site in 1903. The building is no longer show after 1917. The site of the building lies beneath a dump of river gravel.	vn on any mapping
Connedations uncovered during Feb 95. Arisings: lab.	lass + rubble
Foundations uncovered during Feb 95. Arisings: lab. Tetryl - contamination suspected. Wooden str to south. Contam. extended south westwar	noture fo
to south. Contain. extended sonth westwar	as to you

WS Atkins ROHME 303.		-	memorandum					
Subject	EXPERIM	ENTAL HOUSE		То	Graham Vincent			
				From	Bob Watts			
Date	30th Augus	t 1995		Ref	E5275/01/1/03	i		

Graham,

Trench seems to have found the end of the tetryl deposit. Please:-

i) Take sample for open space explosives analysis from trench end.

ii) Hand dig and bag small remaining tetryl deposits on surface, in trench and spillages. All arisings to Burning Ground.

iii) Machine scrape surface of pit adjacent L195. All arisings to Burning Ground.

iv) Dumper away remaining muck to clean stockpile.

v) Fill pit and trench with terram and stone recovered from previously stripped H Area stone roads. Clay inclusions not a problem.

Regards

BOB WATTS.

Copy:- 69/1/01 Steve Chaddock.

EMERIMENTAL HOUSE Detorts - in congression with drowing up, WALD 002 () All external walls one cousturbed of soft yellow stocks in End the boud and one appointable Ban wich. They are set onto a concrete base (foundation?) well below the terrel of the general central commente state. The base of the walls - hone two rows of headers, each outset co. bem, matchaga total basal width of ca. 48 cm. The and top of the walls are generally at the same elevation as the central concrebe Glab. E) Metal ripe ca. 4 cm in chiamethor, and of which ca. I'm is apposed above the ground surface; the remander angles they high the ground. & The walls of the internal 'room' one ca. 23-25 cm wide. Some brich imputs exist, set into a 1.5 cm thick morto base canducted directly onto the concuele stab. (F) The laboral wall is ca. St cur wich ; one coorso af safet yellow Arachis, English bouched (from monto, impute), remains on the montor bare. (5) The internal they walls one ca. 22-25 cm wide. The montor base is n'sible in patches, as one some brich inprints, but ather than the foct That they none constructed in solft yellow Stocks (ittle else can be soriel.

2. ( The long mohen actornal concrete block has the falloung opposite dimension in section: 30 (5 60 (in cur) - W 35 E ~ \_\_\_\_\_(<sup>2\*</sup>\_\_\_\_\_ There are four (ca. 12 12 cm wide) laleral lench walls set in coase wartor, speece evenly across the length of the bloch. (7) With the exception of the three 'p ts' a concrele foundation underlies The on the brailena. This has been out away between the nervousing sections of sylematical, possibly in the some opsode of remark () There is no evidence of doorways in the internal or external walls, Therefor this is unswighting given their state of preservation (a) The 'p't' to the south of the medial laberal wall contains a long e consule bloch, opprox. 110 x 230 cm x uncentain.

THE F	THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY						
NUMBE	R OLD SERIES	RCHME NUMBER 167	N.G.R. TL 37705 01682				
NAME/F	UNCTION g	START DATE 1940?	END DATE				
	NO PHOTOGRAPHY AVAILABLE						
CARTOC	RAPHIC DEPICTION	DOCUMENTARY REFEREN	NCES				
and the second control of the	PHOTOGRAPHY HISTORIC PHOTOGRAPHY RCHME Sile Platen.						
and the second s	ONSHIPS WITH OTHER MONUMENTS ATED WITH:	U					
CONDIT	ION Fair						
DESCRIP	CONSTRUCTIONAL MATERIAL Cast concrete						
2)	ROOF MATERIALS AND STRUCTURE Concrete						
3)	POWER SOURCE None?						
4)	DIMENSIONS i) L 9.2m ii) W 4m iii) HT 2.35m						
5)	Semi-circular concrete shelter, cast over corrugated iron sheeting. The shelter was formerly entered through double doors on the south side and a single door on the north side. The north side is screened by a timber traverse packed with earth, length 4.11m, width 1.2m, height 2.05m, a painted sign reads 'No 4'. This is identical in form to H11 & L197 structure.						
	Historic Artifacts- hand cranked air raid siren on the north wall.						
	Southern end has two toilet cubicles in outline						

to the west side.

Q	THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY				
	NUMBER	OLD SERIES		RCHME NUMBER 178	N.G.R. TL 37532 01656
	NAME/FUNCTION Sentry box	N		START DATE	END DATE
			HOTO VAIL	OGRAPHY ABLE	
$\bigcirc$	CARTOGRAPHIC DEPICTION			DOCUMENTARY REFERENCES	
	PHOTOGRAPHY HISTORIC			PHOTOGRAPHY RCHME	
	RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: Burning ground				
	CONDITION	Good?			
(	DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick				
	2) ROOF MATERIALS AND STRUCTURE Corrugated asbestos				
	3) POWER SOURCE None				
	4) DIMENSIONS i) L 1.3m ii) W 1.2m iii) HT 2.2m				
	5) The sentry box is placed on a concrete slab, the eastern side is open. There is an open slit window on the south side.				

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY				
NUMBER OLD SERIES	RCHME NUMBER 228	N.G.R. TL 37680 01486		
NAME/FUNCTION Traverse	START DATE	END DATE		
NO PHOTO AVAIL				
CARTOGRAPHIC DEPICTION	CARTOGRAPHIC DEPICTION DOCUMENTARY REFERENCES			
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME			
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: L130				
CONDITION Fair				
DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Timber and earthwork 4) DIMENSIONS i) L ii) W iii) HT 5)	iv)			

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY					
NUMBER OLD SERIES	rchme number 254	N.G.R. TL 3784 0114			
NAME/FUNCTION Edge Runners	START DATE	END DATE			
NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC DEPICTION	DOCUMENTARY REFEREN	NCES			
PHOTOGRAPHY HISTORIC	PHOTOGRAPHY RCHME				
RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: L162 OVERLIES: RCHME 278					
CONDITION Fair					
<ul> <li>DESCRIPTION <ol> <li>CONSTRUCTIONAL MATERIAL <ul> <li>Limestone</li> </ul> </li> <li>DIMENSIONS See below</li> </ol></li></ul> <li>During the re-excavation of canal RCHME 278 two edge runners were removed from the site of building <ul> <li>L162. It was unclear whether the stones were set into the floor of the building or in the adjacent yard, both sat on a thick bed of mortar.</li> <li>The stone runners measure: <ol> <li>Diameter 1.4m, thickness 38.5cm, square hole in the centre 30.5cm x 30.5cm (12"<sup>2</sup>)</li> </ol> </li> <li>Diameter 1.4m, centre hole 33cm x 31.5cm</li> </ul></li>					

NUMBER	OLD SERIES	rchme number 265	N.G.R. TL 37598 01722	
NAME/FUNCTION Building		START DATE post war	END DATE	
		HOTOGRAPHY VAILABLE		
CARTOGRAPHIC D	EPICTION	DOCUMENTARY I	REFERENCES	
PHOTOGRAPHY HISTORIC PHOTOGRAPHY RCHME				
RELATIONSHIPS W	ITH OTHER MONUMENTS			
CONDITION D	Destroyed			
Timber	CTIONAL MATERIAL TERIALS AND STRUCTURE			
3) POWER SOURCE None				
	NS i) L 3.2m ii) W 2m iii) HT		und	
<li>Small rough</li>	hly built timber structure to the	North East of the burning gro	una.	

used in construction.

## L AREA

 $\bigcirc$ 

# ASH TRACK c.10m TO NORTH OF L199

TL. 37555 01590 37683 01623

Notification received from D.Priddy (English Heritage)  $\frac{1}{40}$  treat the above ash track within the existing SMC (Ref: HSD 9/2/31 30 pt 2 [22.12.1993]) granted for the removal of waste tips.

- Frequent asbestos arisings after rainfall.
- Presence of rubble/ash/metal debris in make up is clear.

Steve Chaddock 27th February 1995.

Note

Surving Ground Remediation.

Using a bladed machine, the fill of the turning ground was gradually excavated. The likelihood of contamination in this area is high and \$it seems that the area was used as a general waste dump as well as being utilised as a thermal decontamination area.

The fill consisted of large anonnts of ash, askestos (brown & white board reinforced concrete posts and bricks (mixture of engineering and flotton There were also substantial amounts of saidstone metal pipervork, of the sof used in electrical work. and some timbers, where . The odd large block of \$1 sandstone was also recovered.

Fourteen metres from 402, in an east south eastery direction, was a three marshy area c. 8 m across. This had mont tree trunks in it, as If to provide a stabuding capable of being walked on. This seems curions as there are cansenarys in this area, raised will above the marchy area, for the purpose of remaining day while walking around site.

The major east/west canal Rettare 274 is expected to be found and one excavation of the overlying fill of the Burning Ground Area.

Archaeology Department WARGMCo Ltd Powdermill Lane Tel: 01992 767022/710809 Waltham Abbey Essex EN9 1BN Fax: 01992 710341

# WALTHAM ABBEY ROYAL GUNPOWDER MILLS COMPANY LIMITED

# **MEMO**

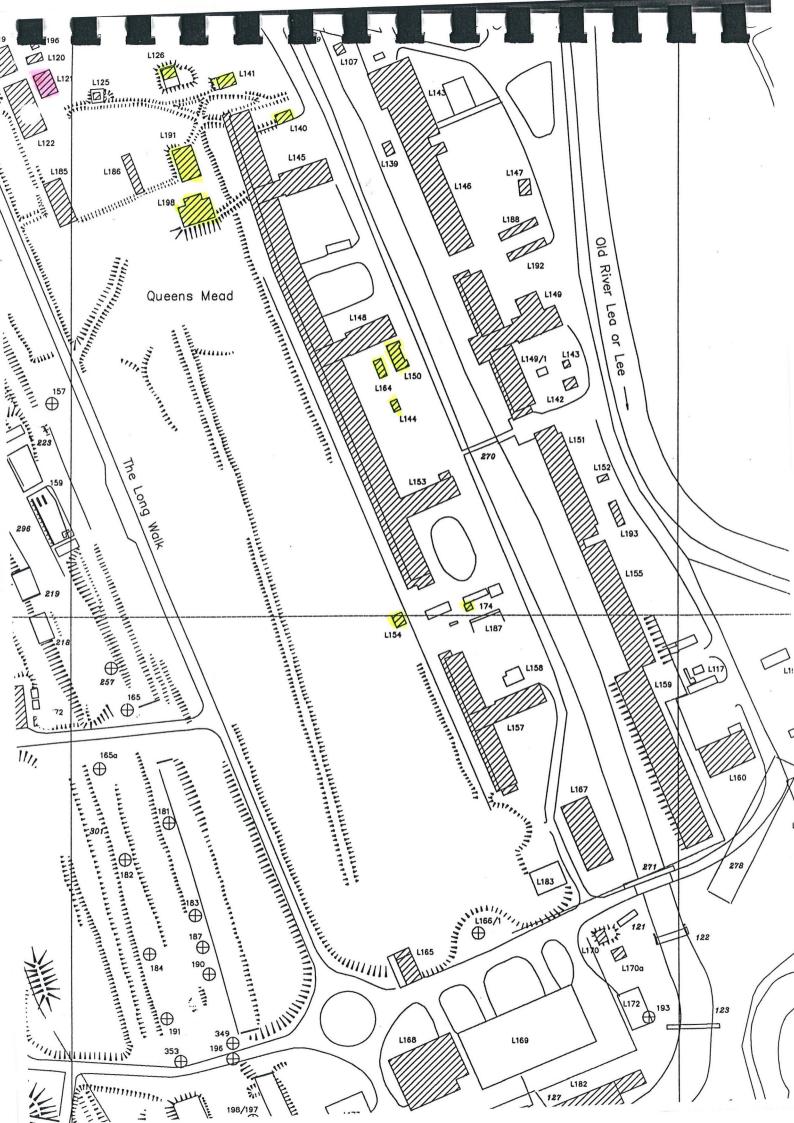
To:	Steven Bashford	From:	-	
Fax:		Date:	08/09/98	
Phone:		CC:	Clive England	
Re:	Small Buildings on Queens Mead			

On Thursday 27 August Steven Chaddock accompanied David Prince, Trevor Knapp and Robert Saunders on a site visit to consider the proposals from the design team. Further information was requested on the size and nature of the small structures within the 'courtyards' that exist on the east side of Queens Mead in view of the pressing need to provide more toilet facilities.

There follows a list of these to include notes on their construction date, historic usage and floor size.

	Small Buildings on Queens Mead					
Building	Construction Date	Use	Size			
L126	1951-2	Sewer Pump House	4.3x3.37m (14.19sqm)			
L141	1899	Expense Magazine	5.8x4m (23.2sqm)			
L140	?1955	Locker Magazine	5.5x2.6m (14.3sqm)			
L150	1941	Air Raid Shelter	9.18x5.18m (47.55sqm)			
L164	1959	Oven Room	6.06x2.67m (16.18sqm)			
L144	1960	Solvent & Waste Store	4.8x2.29m (10.99sqm)			
L154	?1861	Expense Magazine	4.02x3.43m (14.78sqm)			
L174	1959	Magazine	2.29x2.29m (5.24sqm)			
L191	1949-1952	Stability Test Laboratory	11x6.65m (73.15sqm)			
L198	1956	Stability Laboratory	9.2x10.7m (98.44sqm)			

Some serious consideration has also been given to the provision of toilets in the existing toilet block, L121, behind the laboratory building L122 in the northwest corner of Queens Mead. This option would be more appropriate as it is a toilet block already.



NUMBER	OLD SERIES	RCHME NUMBER	N.G.R.		
	see below	333	TL 37852 01170		
NAME/FUNCTION Charcoal Works/C	Cylinder House	START DATE 1830	END DATE		
Gas Works		1865?	1904?		
NO PHOTOGRAPHY AVAILABLE					
CARTOGRAPHIC D	EPICTION	DOCUMENTARY REF	ERENCES		
	1.15 Drayson ; New Cylinder He 72 Brentwood ; Cylinder ho	ouse 1830 Drayson F p4, p5,	p28, p35		
1865 WASC 90 1865 WASC 90 1865 WASC 90 1865 WASC 90 1897 WASC 90	0/38 + SUPP5 975 0/41A 0/42 0/53C d Essex XLIX. 10 0/65	1908 RGPF Ledger WAS works Cylinder house	SC 1509 + WASC 1764;Char		
1917 WASC 90 1917 WASC 90	0/70				
1919 WASC 90 c1920 WASC 90	0/74				
1923 WASC 90	0/84				
PHOTOGRAPHY HISTORIC		PHOTOGRAPHY RCHME			
		Site Pustog.			
RELATIONSHIPS W	RELATIONSHIPS WITH OTHER MONUMENTS				
ASSOCIATED WITH	ASSOCIATED WITH: RCHME 278				
CONDITION Demo	CONDITION Demolished				
DESCRIPTION	DESCRIPTION				
A Cylinder		175,176 constitute the Gas Works in on Treatise of 1830. Probably two			
Gunpowde: cylinder ch 'New Cylind	A committee of the Board of Ordnance recommended in 1829 that the charcoal cylinders from the Gunpowder Factory should be moved to Waltham Abbey, where until this date there was no facility cylinder charcoal. This recommendation appears to have been acted upon fairly swiftly for in 1830 'New Cylinder House' on his map of the factory. In 1831 men employed in the cylinder house at Fatransferred to Waltham Abbey (Winters 1887, 102).				
Da i	a uncontract dury	ng early-mid 199 tar pit etc. See	5. Formed a king		
			$\sim$ · · · · · · · · · · · · · · · · · · ·		

# **BUILDINGS L175 AND L178**

### The Burning Ground

The Burning Ground gets its name from the use of the area during the post-war period. From the mid-1960s onwards the area was used for the destruction of dangerous chemicals by detonation or by fire.

The western and southern limits are bounded by canals that served magazines and stores, L101 built in 1908-14, L102 built in 1878, and L103 built in 1885. These three buildings and the remains of the canals [RCHME 289] and [RCHME 94] are the remnants of an earlier phase of activity. Two other buildings, 105 and 106, now lost, were magazines for the press houses 107 and 108, west of the Burning Ground.

During the post-war use of the area as the Burning Ground a further six buildings were constructed. With the exception of L175 and L178, and [RCHME 178], a Sentry Box, the others had been destroyed prior to or during the decontamination process. Those buildings that have been lost are building [RCHME 265] a probable Detonator Store, L100, a Remote Detonator Disposal Unit, and L100a, also associated with the remote detonation process. The locations of all buildings, including those now lost, are presented on Figure 1.

### L175

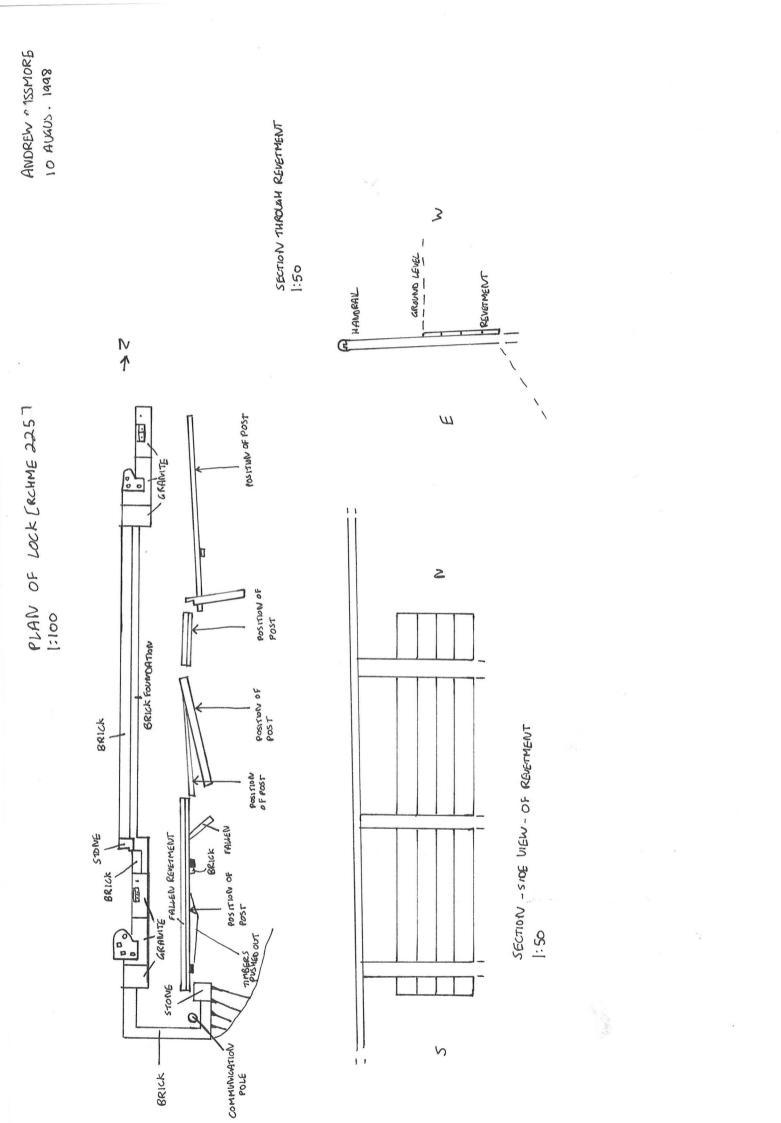
This building was erected in 1963 as a remote Firing Control for the Burning Ground, and is constructed of breeze blocks on a concrete slab foundation. It is rectangular in plan and has a door on the eastern elevation and armoured windows on the north and west elevations.

### L178

This building was erected around 1963 as a Solvent Store for the Burning Ground, and is constructed of brick with a corrugated asbestos roof on a wooden frame. It is rectangular in plan and has a metal grill door on the southern elevation.

### Discussion

The Burning Ground is an important part of the post-war history of the site, although its development dates back to the nineteenth century. Of these two phases of activity, the archaeology of the earlier is better preserved than that of the latter. Indeed, buildings L175 and L178, along with [RCHME 178], are the only visible remains of post-war activity. The site was thoroughly decontaminated and the present 'green and pretty' landscape is in start contrast to the appearance of the site when it was in use. Post-decontamination landscaping has altered the look of the site immensely; see Figure 2 for a photograph if the Burning Ground in action. It is important that buildings L175 and L178 are retained and preserved as the survivors of the post-war use of the area, in particular L175, the remote Firing Control, as this played a crucial part in the process of the destruction of dangerous chemicals. Indeed, this is the only building on the that could be interpreted (for example, with signboards) to explain the post-war activities here.



- various stonework and metalwork in undergrowth (max size 4m<sup>2</sup>)
- other metalwork max size  $3m^2$

(the edgerunners require a minimum of  $2m^2$  each)

### East Side

REMOVE SPACE

• 2 barges – each measures 2.3x7m

### L169 (slab of concrete next to L168)

REMOVE SPACE

 Currently used to store large artefacts from South(s)te as well as 2 dismantled buildings – total area occupied is 12x20m

### **Behind L149**

REMOVE SPACE

• 22 timber revetments from a canal bank – total area 2.4x3.4m

### **Behind S13**

REMOVE STACE

• 32 timber revetments from a canal bank – total area 3.5x4m

### **Container near L168**

REMOVE SPACE

• Container measuring 2.5x4.5m holding wooden artefacts including canal revetment timbers

### L168

REMOVE SPACE

• Medium-term store for small artefacts from the North and South Sites; also a potential open store following opening of phase 1. (Also see below.)

### **Other Millstone Fragments**

REMOVE SPACE

• In addition to the millstones outside A210, there are a further 5 complete millstones and 9 fragments of millstone around the site – their locations are presented on Figure 1.

To summarise, the artefacts listed above take up an approximate area of  $243nR^2$ .

# Suggested Buildings to be used for long-term Storage

This section presents details of buildings that could be brought into use as artefact stores. Buildings L1@ and L149 are-listed buildings, and in using and maintaining them as artefacts stores; WARGM Co Ltd would be carrying out their duty as owners of these listed buildings to keep them in good repair.

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