

WASC 2254

Summary of  
History of South

Site

W. Croft

2-9-1994

'South Site' info. from Wayne.



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English Heritage  
Fortress House  
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VNCVT  
COPY

explosives.26 5 September 1994

Dear Martin,

**The Royal Gunpowder Factory Waltham Abbey 'South Site'**

In response to your verbal request for some information on South Site I have put these, brief, unreferenced notes together, though some of the material may be found in the RCHME report on North Site.

The area termed 'South Site' lies to the south of the M25 and along with the site of the Lower Island Works is owned by British Aerospace Defence, Royal Ordnance Division, and is administered by their Environmental Services Group based at Westcott, Buckinghamshire. The site until the mid 1980s formed an integrated part of the former Royal Gunpowder Factory (RGPF), the southern part then passing to Royal Ordnance (RO) in the lead up to privatisation. The northern part of the factory remaining with the Ministry of Defence.

The land on which South Site now sits formed part of Quinton Hill Farm until around 1885 when it was purchased for the erection of a new Guncotton Factory, the main factory building built in 1889 still stands. With the adoption of cordite as the principal British service propellant at this date, this greater demand for guncotton was reinforced. To make cordite, nitroglycerine was also required and to meet this need a nitroglycerine factory based on the Nobel plant at Opladen, Germany was constructed on south site and associated buildings for cordite manufacture. The earliest nitrator was destroyed in an explosion in 1894, although its successor too has been demolished, a remarkable timber, nitroglycerine washing roundhouse, retaining its wooden washing barrels survives intact. Along with a another timber roundhouse formerly used as a mixing house. Both structures may be dated to the 1894 reconstruction of the plant. Also surviving from this date, although partly derelict, is a circular, timber guncotton drying stove.

Briefly, the early topographical development of south site may be conveniently divided into two halves by the east to west canal Black Ditch, see enclosed map extract. To the north lies Quinton Hill taking in the 1880s guncotton factory and the early nitroglycerine and cordite factories. To the south of Black Ditch are rows of small repetitive Tray Stoves constructed c1902-3, these were used to dry cordite produced in the converted steam gunpowder mills on North Site. After drying, the cordite remained in the stoves, the stoves then effectively acting as store magazines, until it was removed off site to an ammunition filling factory. This remained the general pattern until the after the Great War.

During the inter war period south site was for the testing of pre-production plant for a number of important explosives. The northwest corner of the site was converted for the production of a fuse powder RD 202. A hexagonal building in which this explosive was milled survives intact. Laboratory based research initiated at the Royal Laboratory, Woolwich, into the production of TNT and RDX was transferred to South Site where pre-production test plants were erected in the northeast corner of the site. A number of buildings on the site may date from this period or the early war years. Waltham Abbey remained the only supplier of RDX for the first years of the war until the ROF at Bridgwater came on stream, the TNT plant forming a model that was replicated elsewhere in the UK and ?abroad.

Large scale manufacture of explosives ceased in 1943 and from 1945 South Site formed part of RARDE. Small scale manufacture of explosives did however continue for research use and in small specialised batches for service use. Some rocket propellants were manufactured on the site, including I believe the propellant for Blue Water, an abortive British ground to ground missile. In connection with this work at least one vertical cordite press remains insitu, and a large horizontal propellant press, possibly used in the extrusion of solid propellant rocket motors. As on north site buildings were adapted to meet the needs of the research establishment.

South Site lay outside of the area designated for detailed survey by RCHME and it was only once fieldwork had started that the Lower Island Area was incorporated into the survey. It was also at this stage that we became aware that South Site remained largely intact, earlier reports had suggested that the site had been cleared. A brief reconnaissance of the site confirmed the survival of most of the building, including the small group of late nineteenth century timber roundhouses. These along with a few other early buildings were photographically recorded by a Commission photographer in 1993. A more systematic photographic survey of the whole site was conducted in January 1994 aiming to

record all the different building types on the site. This was combined with an aerial photographic survey that recorded the general layout of the factory and isolated building groups by low level oblique photography. No separate account of the site or written buildings descriptions have been prepared.

All the aerial photographs of the site are held at the NMRC in Swindon and I believe have been catalogued for public consultation, I have a few copies in Keele. If your staff wish to make use of the material that the Royal Commission has gathered on South Site, it would probably be more convenient if they arranged to visit me at Keele. At present we hold copies of all the ground photographs of the site, some maps and plans of the site at various dates and a photographic copy of a ledger detailing the function of every building in 1908 (sample copy enclosed).

If I can be of any further assistance please do not hesitate to contact me.

Best wishes.

yours sincerely

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W D Cocroft  
Field Officer