

# Royal Naval Cordite Factory Heritage

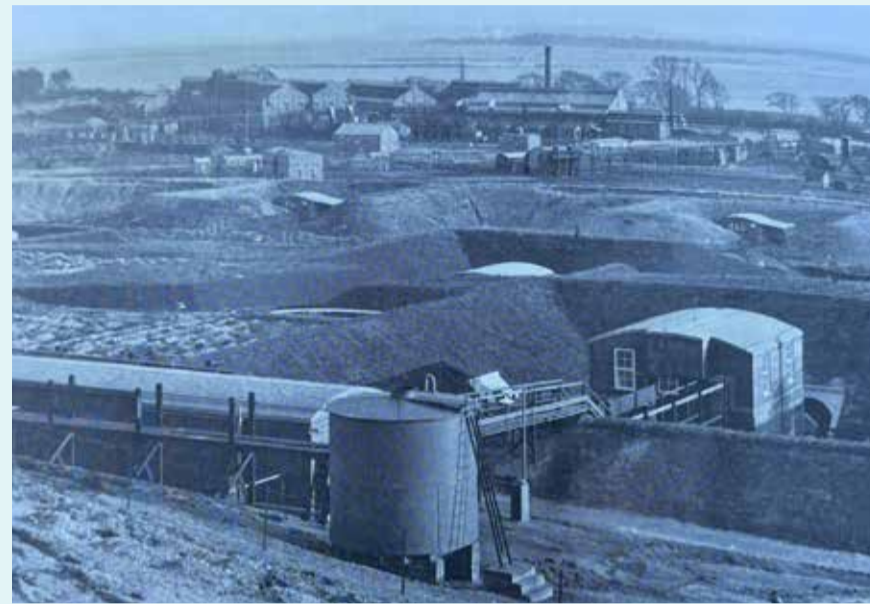


## Welcome to the RNCF Heritage Corner

You are at **Point 4** on the trail. This sign is about the history of the Royal Naval Cordite Factory (RNCF) and the Admiralty railway line linking it to Rockley Jetty. It also highlights some remaining RNCF features that can be seen on your journey along or near the Cordite Way.

## RNCF Factory (RNCF)

In WW1 there was an urgent need to increase factory production of cordite, the propellant used in naval gun shells. This site was chosen because of the lack of population and its closeness to the railway and sea for transport. Building began in 1915 and the site became operational in January 1916.

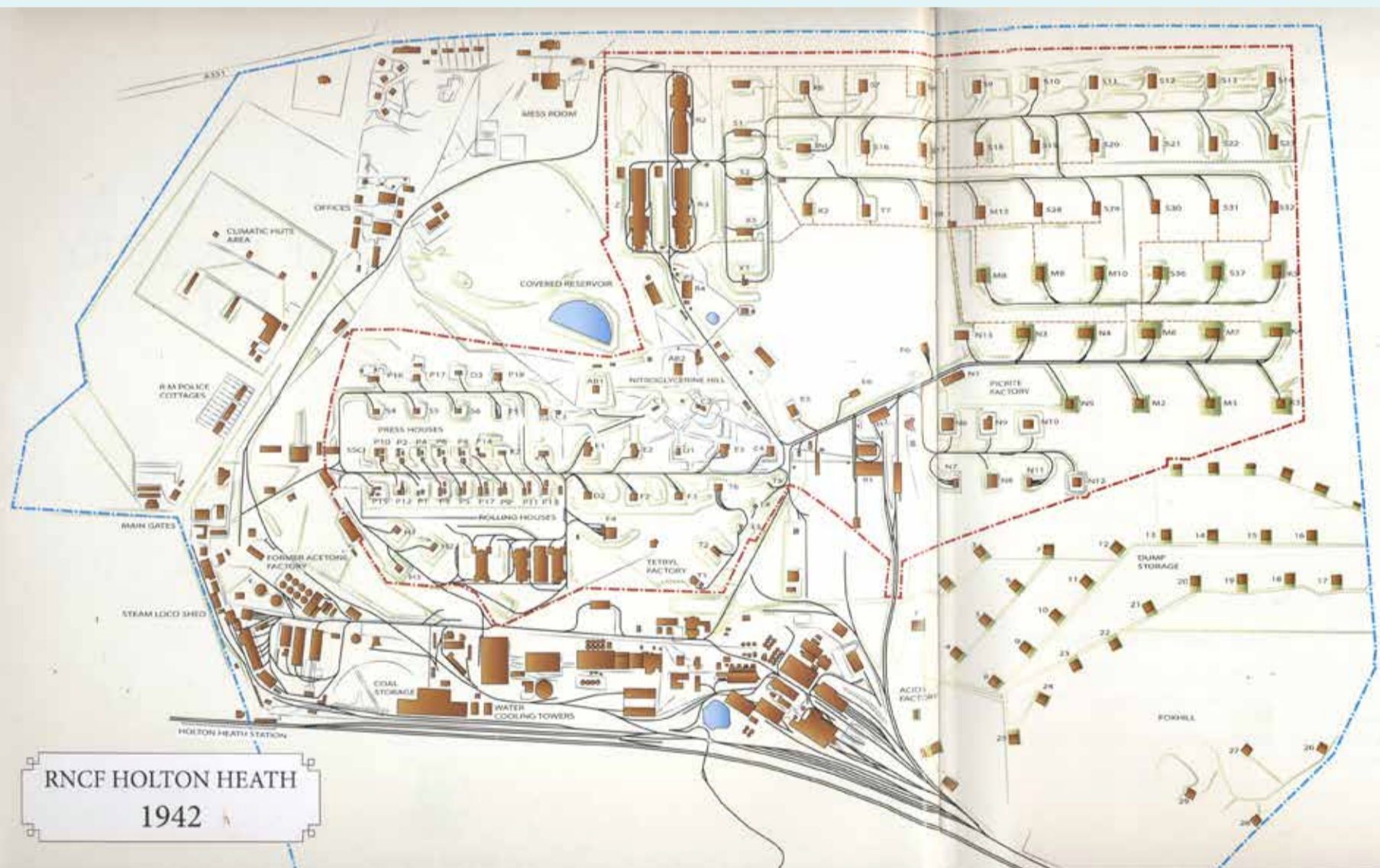


Cordite was initially made from Nitroglycerine (NG) and guncotton.

Various sub factories onsite produced the components needed, including sulphuric and nitric acids, acetone, gun cotton, NG, and, just before WW2, picrite. Many of these were dangerous liquids and gravity was used where possible to reduce handling. After 1927, production methods were improved.

Water was supplied from a pumping station at Corfe Mullen (now Wessex Water's 'The Admiralty' site) via a pipeline through Lytchett Minster. Steam, produced in a boiler house containing 24 large coal-fired boilers, was used to power fireless locomotives and to generate the site's gas and electricity.

Staff peaked in WW1 at some 2500 and 4500 in WW2. They moved around the site on a network of footpaths.



## Decoy Factories

To protect the factory from airborne attack, an anti-aircraft gun and a factory decoy site were built in WW2 at Arne. When a night-time air raid on the factory was expected, a mock-up factory building was set ablaze with oil and diesel to make enemy pilots think the target had been hit, so that they would continue to bomb it. The decoy worked successfully, especially so on 3rd June 1942, when hundreds of bombs fell on Arne. There were no successful air raids on the factory itself.

## After World War 2

The Admiralty Materials Laboratory (AML) was created in 1947 to undertake research. After the RNCF closure in 1957, part of the site was taken over by AML and its successors between 1967 and 1997. Many original buildings were demolished and rubble from the Pyrites Store obstructing the former railway route may be seen from the cinder path. Part later became a trading estate and part became a nature reserve. The latter land was deemed contaminated by asbestos and access is therefore strictly prohibited.



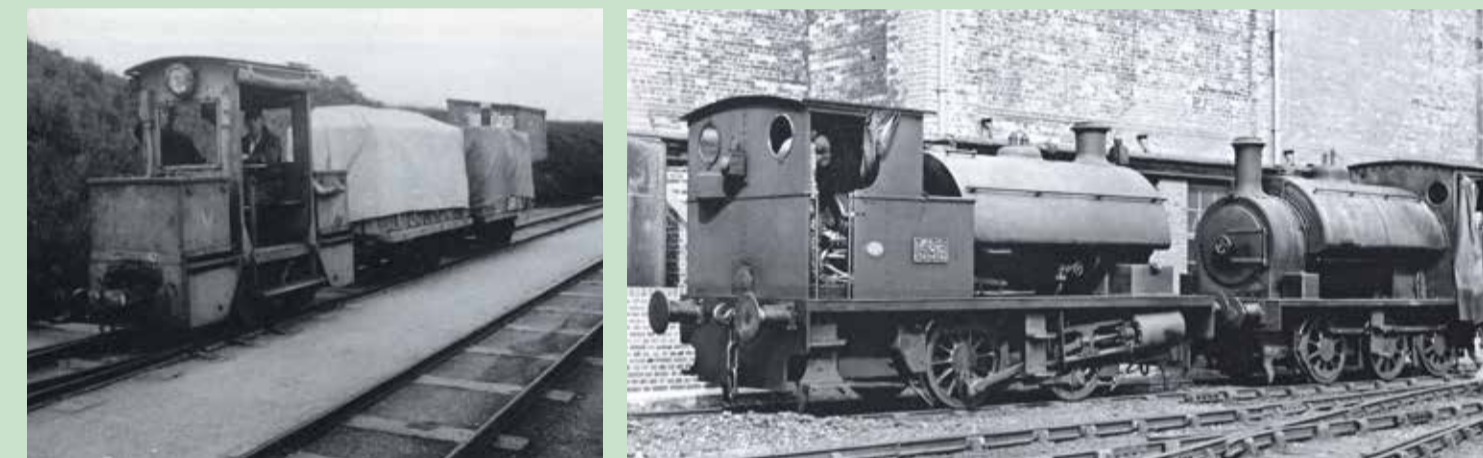
## RNCF Transport

Raw materials were delivered via a mainline railway connection near Holton Heath station, built for workers arriving from local stations.

Three standard-gauge steam engines were assigned to mainline transfers and to deliver cordite to Rockley Jetty, reached by crossing over the mainline railway.

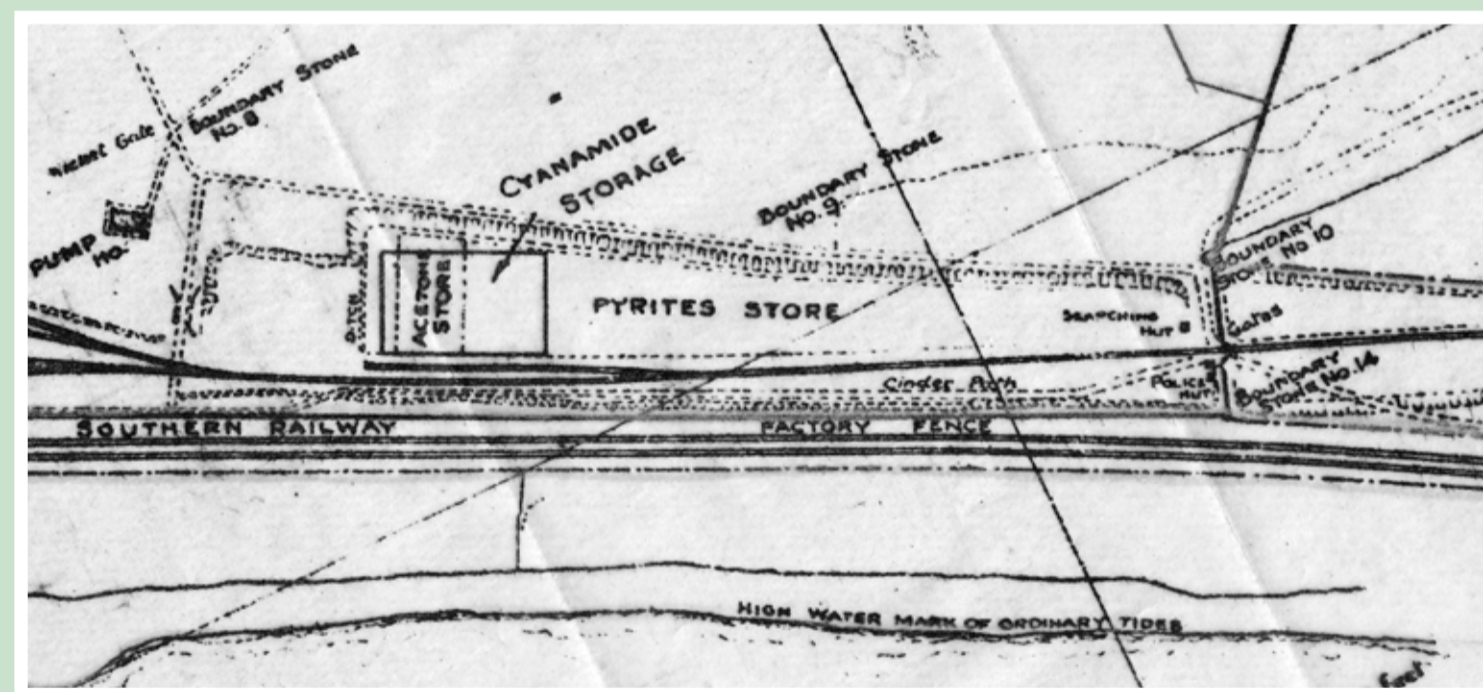
The cordite was shipped from the Jetty to the Naval Armaments depots at Priddy's Hard, Gosport, and Upnor Castle, Chatham, prior to filling naval shells. Barge transport was replaced by rail transport in 1938 to avoid sea attacks.

A 2ft 6in narrow-gauge system transferred materials between the sub factories and storage sites, using either fireless engines or battery-powered engines. Storage facilities were protected by earthworks to limit the effects of any explosions. The narrow-gauge system, using bronze rails to reduce sparks, totalled 14 miles and the standard-gauge lines about 5 miles.



## Security

Guards patrolled the factory boundaries, one route using the cinder path between **Points 3 & 4**. The guards were initially gun-carrying Royal Marines but later policemen.



## Accidents

Inevitably, working with hazardous materials led to accidents, most related to the use of acids. The worst accident was the 1931 explosion in the Nitrator Separator House which killed 10 staff. The explosion was heard in Poole.



## RNCF Staff

Many women did difficult and dangerous work in the factory doing their duty for the War effort. This photo shows the women Cordite workers wearing better protective clothing brought in following a cordite fire accident in 1929.



## RNCF Artefacts

On your walk look out for the remains of the RNCF structures and the Admiralty line that remain visible along the Cordite Way route and adjacent roads. Along the Admiralty line path will be seen cinders/ash dumped from the RNCF boilers and steam engines.

Here's what you can see at each stage:

**Point 2** In the nature reserve can be seen the remains of the back-up Pump House.

**Between Points 3 & 4** Brick and concrete rubble will be seen from the demolished Acetone Store and large Pyrites Store.

**Point 4** Immediately north of the two modern gate posts are two small gate-post stumps where security guards passed during their patrols. Further north are the remains of the security fence's concrete foundations and two large gate-post stumps where cordite trains joined the Admiralty line to the Jetty. Anchoring posts and hooks that held the gates open are still visible nearby. Also visible is a section of concrete sleepers, too heavy to move during demolition. All other sleepers were probably wood, some remnants being visible along your walk.

A wooden Police Hut guarding these RNCF exits was located between these gates. The cinder path along which you walked now veers south to follow the mainline fence to the former Admiralty bridge. That part of the cinder path is now flooded and overgrown.

South of the two modern gate posts by the mainline railway fence is Boundary Stone No 14. Similar marked stones were positioned around the RNCF boundary.

## Unearthed Artefacts



Railway exit gate and concrete sleepers



Trackwork dog spikes and fishplate



Gate anchor hook



Security guard exit gate

## RNCF Structures

North of the footpath between Sandford and Station Rd, Holton Heath, are a pair of WW2 towers. One tower held the anti-aircraft gun and ammunition; the other held the predictor for aiming the gun at moving targets. A deviation in your walk up Station Road in Holton Heath will take you to the former Royal Marine Policemen's Cottages. The main research and administration buildings, including Britannia House, were along here where AML was later based.

On the A351 near the Romany Works are the remains of a pillbox protecting the north eastern RNCF boundary.



Anti-aircraft gun towers



Pillbox



Royal Marine Policemen's Cottages



Pump House



Britannia House

Sponsored by:



Please note:

- ▶ There are no amenities on the Cordite Way
- ▶ No public parking is permitted between **Points 1 & 2** - park considerably on Holton Rd
- ▶ Respect the countryside code
- ▶ Take all your litter home
- ▶ Dog litter bins are on Organford Rd and Station Rd
- ▶ Cycling is not permitted on footpaths

PHT: Linking and promoting walking & cycling routes around Poole Harbour  
Further Information visit: [www.pooleharbourtrails.org.uk](http://www.pooleharbourtrails.org.uk)

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