

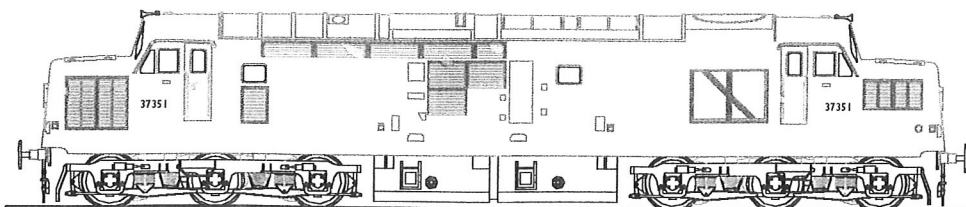
WASC 2309

Letter from
Mark Phillips

10-5-2003

incl.

- Schmid plant



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10 May 2003

Dr Dave Sims,
8 Norman Close,
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Dear Dave,

So I thought, "what does Dave Sims want on *my* birthday?" as I opened your missive. Then I opened it and found that you wanted to know about Edmondsey in the years 1960–75. Ah well!

I **did** know about North and South Sites of what was Waltham Abbey because I have been visiting (about once a year) some friends in Epping and I depart the motorway network at Junction 26. My memories are somewhat hazy being 35 years ago and trying to get back those hazy memories after the stroke. I've written down what I could remember, but details (like the actual building numbers and what they were used for!) are definitely iffy. Last summer Mary and I went round the North Site to the museum and travelled in the funny little cart pulled by a tractor and it brought back floods of memories, most of which came back after we had departed. Mary used to work there as well before the kids came along. Doc Pryde is still about at 22 The Cobbins, or at least he was last Christmas. He must be well into his eighties now and he is a widower. He may be able to help you as he was in charge.

And so to business. I started work at Edmondsey in about 1970 when I had finished my thesis. I didn't know there was such a thing as the "grand nitrator"; the nitrator that was there was in building E1 and was just known as the **Nitration House**. I don't think it was used to make NG¹ after the end of the war — the second that is not the Crimean as the building was dated 1898! — and it was a batch process. There was a second NG plant based on the Schmidt process and was taken as war reparation from Germany but never installed. It was stored in building S6 (I think).

Prior to my working there, the nitrator had been used for making DEGDN² and TEGDN³ by **Phil Coxon** (who knows?) and **John Kemp**, the latter now sadly dead. These two nitrate esters were shipped to South Site, dried, and used for researching into high performance gun propellants by P1.

I started by designing and operating an NG extraction plant in the ? House, building E3?. The NG (from dynamite made at ROF Bishopton) was extracted by hot water and mixed (the ? House was used because it was then connected to the **Wash Water Settling House**, building

¹ NG = nitroglycerine, more correctly glycerol trinitrate

² DEDGN = diethyleneglycol dinitrate

³ TEGDN = triethyleneglycol dinitrate

E7?) with daltorol (for PolyX explosives research by Ernie Cook *et al* in the building next to G430, South Site). The NG was measured using the 10lb burette made by Arthur Whittam and now kept in the museum.

Ron Jones used the nitrator for making DNEB⁴ and TNEB⁵ (used to make K10 liquid, the plasticiser for some atomic weapons).

The last “thing” to be made in E1 was HNS⁶ used as a nucleating agent in 120mm calibre shells. The pilot plant was located in the building and latterly it was the plant for HNS production before HNS production was made at ROF Bridgwater. Edmondsey ceased to exist in the working sense at the end of HNS production and the nitrator was “taken down” by Bert Betts and his crew and the building left.

The NG gutter was different. When NG had been made, all the products (and that included any intermediate materials) were flowed by gravity (hence the ‘name’ of an NG ‘hill’) in NG gutters which were in fact surrounded by warm water to prevent the NG, or any NG that would have separated from washing waters, from freezing. This was still in existence when I was at Edmondsey and your question about the “length of NG guttering” being “just south of Newton’s pool” is difficult for me to answer as I knew the buildings by name and sometimes the number.

After the NG had been extracted with hot water, the washings were taken to the “washing house” (building E8 I think) in an NG gutter, before being treated to remove any NG and discharged to the local river.

And so to business about me. I’m still involved somewhat heavily with model railways — hence the Class 37 on the letter heading and the envelope — and I’m starting to build the model, albeit slowly, as my workshop is not heated and my hand does get extremely cold — or so it seems to me. I’m still finding it difficult to write with a pen, but sitting at my keyboard and writing letters or e-mails is quite straightforward. Your e-mail has been included in my address list so that I can e-mail you in case you can think of any other questions you want answering, and *vice versa*.

I shall be coming east next on or about June 4. Perhaps we can make it to the North Site — it is still North and South Site to me — and I can identify various bits. For instance, did you know that in the building that is on the left hand side of the Long Walk at Edmondsey still has the fifteen inch gauge railway tracks in the floor and, I’m told, it used to be the battery shed where all the locomotive were housed?

Regards,



Mark Phillips

⁴ DNEB = dinitroethylbenzene;

⁵ TNEB = trinitroethylbenzene;

⁶ HNS = hexanitrostilbene