CLARKSTEEL LTD

Reg. No. 1011833 (England)
Chairman: F.S. Clark.
Vice Chairman/Co. Secretary: D.M. Clark.
Directors: R.F. Clark (Managing Director), P.M. Spencer, P.H. Burgess.

Registered Office
Station Road, Yaxley
Peterborough PE7 3EG
Telephone 01733 240811
Facsmile Group 2 and 3
National 01733 240201
International +44 733 240 201

June 16, 1995

Huntingdonshire District Council
Pathfinder House
St Mary's Street
Huntingdon
Cambridgeshire
PE18 6TN

19 JUN 1995

Mr John Allan - Environmental Health Officer

Dear Mr Allan

I am writing, as promised, to keep you informed about the situation regarding the filter system at Clarksteel Galvanising.

Our supplier of equipment has proposed some modifications to increase efficiency.

The supplier will be visiting our factory on Thursday 22nd June 1995 to carry out initial survey regarding best placement of ducts etc.

We in our turn will be interrupting production and running some special trials.

At this trial we will hopefully decide that the modifications will work and give the go-ahead.

I will inform you of the timescale for completion as soon as it is firmed up. This is not in any case expected to be long.

Yours faithfully
CLARKSTEEL LIMITED

Mark S Rayner

Martin S Rayner
TQM MANAGER

5A GB I think an acknowledgment is appropriate

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WORLD-WIDE REPUTATION CLARKSTEEL

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May 24, 1995

SENT BY FAX AND POST:
01480 388099

Mr J Allan
Huntingdonshire District Council
Pathfinder House
St Mary's Street
Huntingdon
Cambs
PE18 6TN

... DISTRICT COUNCIL ... ENVIRONMENTAL ... DEPARTMENT
30 MAY 1995

Dear Sir

Further to our telephone conversation today I can confirm the following:

Clarksteel had put out for tender the design and manufacture of bag filter exhaust equipment for the Galvanising Plant.

Due regard was taken, after consultation with yourselves, of noise and filtered exhaust controls. Clarksteel chose a supplier [Airmaster] with previous history of this type of application and the equipment has been installed and commissioned by their engineers.

We are in the unfortunate position that the equipment as designed and supplied is not as efficient at removing fumes directly from the bath area as we specified.

Those fumes that it does remove are dealt with efficiently re cleaning and filtering etc.

The amount of fumes from the process vary considerably from product type to product type and whilst specified adequately the equipment does not deal with the 'highs'.

We are in hard negotiations with the suppliers to remedy the situation and the only guideline they are working to is correct environmental control...cost considerations will not come into it.

cont'd.....

Huntingdonshire District Council cont'd....

During this problem period we alternate between the old exhaust system and the new filter system. Hence the observations from your complainants that fumes can be seen from the old stack.

We had a senior management level meeting with Airmaster on 19/5/95 and they have promised that they will table proposals to rectify the situation by 25/5/1995. [I have telephoned to check that they are still on schedule and been told 'yes'].

We at Clarksteel are as concerned about the situation as yourself and would re-assure you that this matter is receiving our best attention and that financial/'legal' pressure is being maintained on Airmaster.

We would hope to resolve the matter in weeks rather than months and await Airmaster's proposals with interest. [It is fair to say that Airmaster are very concerned with their reputation and getting the efficiency aspect sorted, so we can meet our environmental responsibilities].

Please contact me if you require any further help on this matter, I am acting as the point of contact for Clarksteel, Clarksteel Galvanising and Airmaster.

Yours faithfully
CLARKSTEEL LIMITED

Martin Rayner

M S Rayner
Total Quality Manager

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From the Chairmans Office.

Registered Office
Station Road Yaxley
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Telephone 0733 240811 (10 lines)
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December 7, 1994

Your ref: DHEH/JA/SM
Our ref: FSC/env/001

Mr J M Coultous
Assistant Director
Environmental Health
Huntingdonshire District Council
Pathfinder House
St Mary's Street
Huntingdon
Cambs
PE18 6TN

Dear Mr Coultous

Further to our recent telephone conversation and your letter dated 24th November.

After extensive investigation and research I am pleased to enclose the technical specification and a photograph of similar equipment installed in another galvanising situation of the dust and fume extraction system to serve our galvanising bath.

Should you or Mr Allen have any questions in connection with the attached system, perhaps you would contact me as we hope to be placing our official order for this equipment immediately after the Christmas break, which will leave us adequate time for installation within the previously agreed timescales.

Yours faithfully

F S Clark
Chairman

Encl:

3+1

Clarksteel Galvanising Ltd EP32556

TECHNICAL SPECIFICATION

DUTY :-

Galvanising bath (Dimensions)	: 6.1m long x 1.2m wide x 1.8mdeep
Type of extraction	: Free standing enclosure (by others)
Extraction rate	: 2200 cu. m/hr per sq. metre
Exhaust volume	: 16104 cu. m/hr
Maximum temperature	: 40 deg C

PROPOSALS

Item 1 - Filter

Filter type	: Reverse jet cleaning type
Designation	: ONE RJX225/A/15-12
Filtering area	: 225 sq. metres
Filtering media	: Polypropylene needlefelt
Filtration velocity	: 1.19 m/min
No. of filter elements	: 180 (Top removal)
Filter element length	: 3.275 metres
Compressed air consumption	: 0.60 cu. m/min at 6.1 Barg
Emission warranty	: 15 mg/cu. m (TWA)

The Airmaster RJX 225/A/15-12 reverse jet filter would incorporate an "airsaver" type pressure switch to inhibit the cleaning cycle and hence compressed air consumption until required. The filter would also be fitted with a dial gauge manometer, pyramid type hopper section with two 75 litre bins, outlet slide valves and a support structure. To combat the corrosive nature of the gases / dust given off by the galvansing process, all aluminium components as well as the dirty air contact parts would be 2 pack epoxy painted.

Item 1a - Bag Support Floor

If required the filter could be fitted with a 304 stainless steel bag support floor to further combat the corrosive nature of the gases / dusts involved.

Item 2 - Access Equipment

Comprising an access ladder with backages and a toeboard, fitted with handrailing around the filter top section, to provide access for bag removal and valve maintenance.

Item 3 - Fan Set

One backward inclined fan set vee belt driven by a dual speed motor, fitted with sliderails, drive guard and a baseframe all seated on anti-vibration mountings. The fan speed would be controlled by the operator local to the galvanising bath.

Type	: High efficiency backward inclined
Maximum volume	: 16104 cu. m/hr
System Resistance	: 300 mm wg (maximum)
Fan speed (maximum)	: 2481rpm
Fan speed (minimum)	: 1241 rpm
Absorbed power (maximum)	: 18.22 kW
Absorbed power (minimum)	: 2.28 kW
Motor	422/4.5 kW 2/4 pole

Item 4 - Silencer

One inline silencer with transformation piece fitted to the fan outlet to reduce the air discharge noise level to approximately 85 dB(A) at 1 metre.

Item 5 - Main Control Panel and Remote Control Facility

This would comprise one main control panel situated local to the filter to give sequence control of all the equipment. A remote control facility would be located near the galvanising bath in order for the operator to control the fan speed.

Item 6 - Exhaust Ductwork

One set of black mild steel ductwork of a flanged construction, fitted to the exhaust hood and terminating at the filter inlet flange(s).

Gauge : 2.0mm thick throughout

Item 7 - Filter to Fan Ductwork

One set of black mild steel ductwork of a flanged construction, connecting the filter outlet flange(s) to the fan inlet and fitted with a manual air volume control damper.

Gauge : 1.2mm/1.6mm thick straight and 2.0mm thick bends

Item 8 - Fan Discharge Stack

One 12 m high discharge stack of a flanged construction fitted with a "no loss" discharge outlet and two test points.

Gauge : 1.6mm thick throughout

NOTE : The stack height is based on the discharge being 3m above the apex of the building, this may be reduced with the approval of the Local Environmental Health Officer.

Item 9 - Testing Platform

Comprising of a rolled steel section framework with floor grids and suitable handrailing, suspended between the adjoining filter top section and discharge stack. Access to the platform for monitoring purposes would be via the filter access ladder, the filter top and an adjoining walkway.

Item 10 - Emission Monitoring Equipment

The monitoring equipment would comprise of a sensor unit fixed to the exhaust stack and a separate base electronics unit for remote mounting, for monitoring the filter performance and to detect any undesirable particulate emissions.

Item 11 - Filter Trace Heating

The filter hopper would be fitted with heating tapes to maintain the air temperature within the filter (with the aid of insulation) at 40 deg C, at all times.

Heater element : 3 x 2.0 kW
Voltage : 240/1/50

Item 12a - Insulation (Filter/Hopper)

The filter body and hopper section would be fitted with 50mm thick mineral wool clad with 0.8mm thick galvanised mild steel sheets.

Item 12b - Insulation (Exhaust Ductwork)

The exhaust ductwork would be fitted with 50mm thick mineral wool clad with 0.8mm thick galvanised mild steel sheets.

Item 13 - Manual Lime Additive System

In view of the oil content on the products prior to the zinc bath dipping stage, we feel that a lime additive system should be incorporated in the package. By adding small amounts of lime into the fume gas exhaust at least once per month, the filter media would become pre-coated and thereby prevent it becoming "blocked" or "blinded" with oil.

The Manual Lime Additive System would comprise a normally closed BSP connection on each hopper and a flexible hose connection to suit the BSP point. When required the hose would be fitted to the hopper connection/s and the open end will draw lime from an open bag into the filter with the fan running at full speed.

Item 14 - Delivery

To site in Yaxley, Peterborough of all the aforementioned equipment, excluding off-loading.

Item 15 - Installation

Installation includes for the services of two erectors, to erect the aforementioned equipment during normal working hours and at one site visit.

Item 16- Cranage and Scaffolding

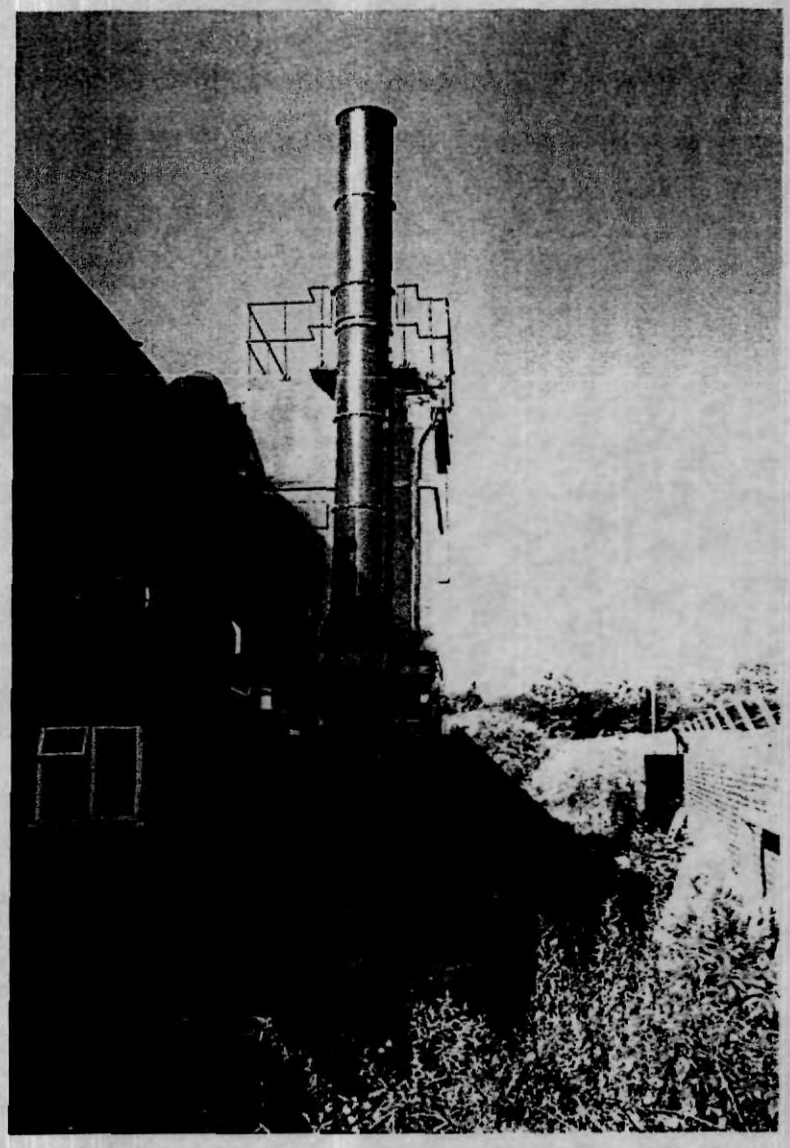
For off-loading and installation purposes.

Item 17 - Commissioning

Includes for the services of one of our Commissioning Engineers who will formally commission the plant, before it is put into regular use.

Airmaster
ENVIRONMENTAL ENGINEERING

Technical Information	GALVANIZING

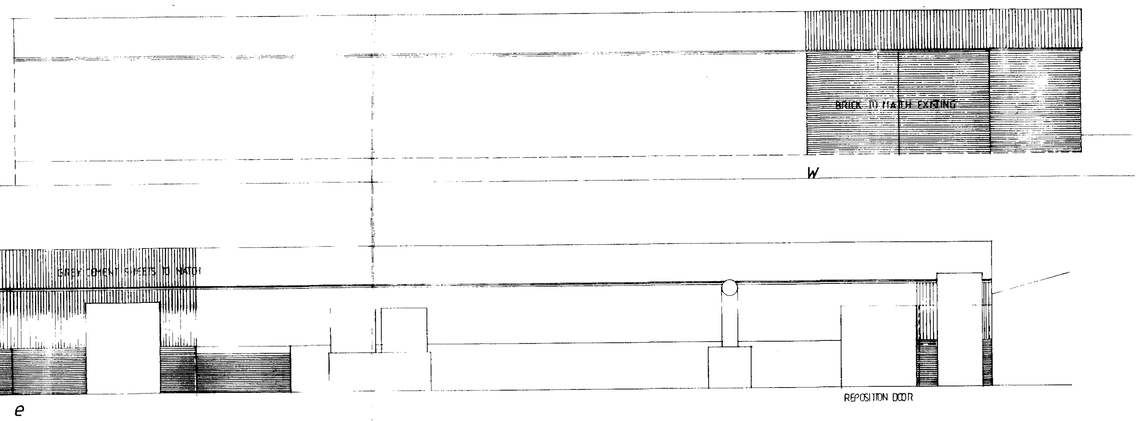


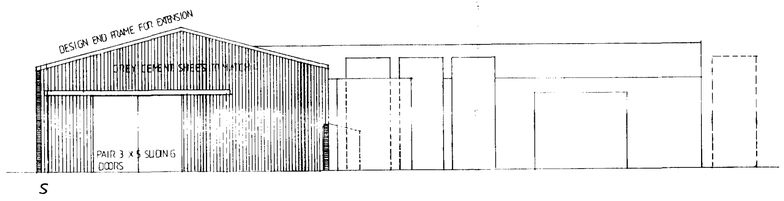
Dust collector with insulation installed along side galvanising bay.

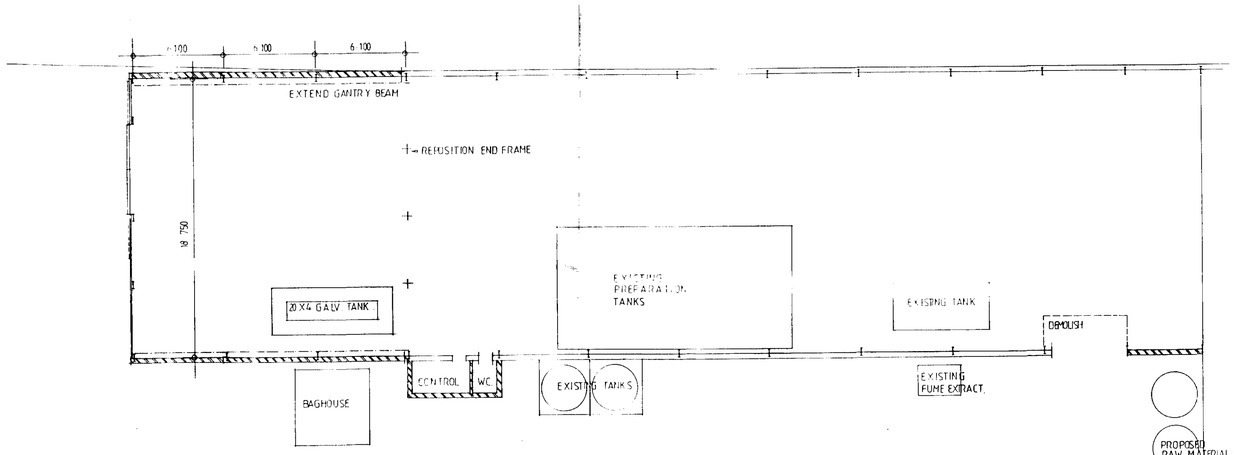
Extraction volume 19,125 cu. m/hr.

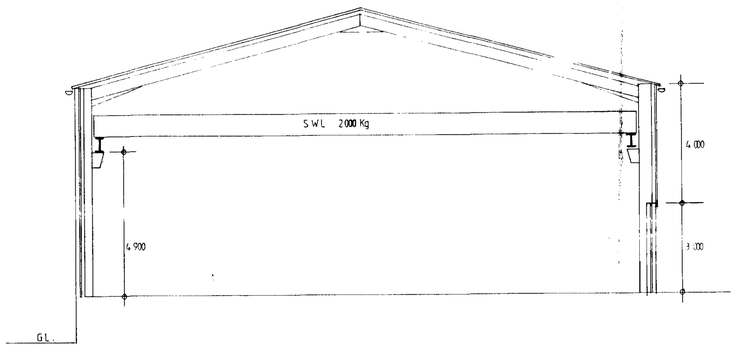
Sound attenuation and low loss discharge stack.

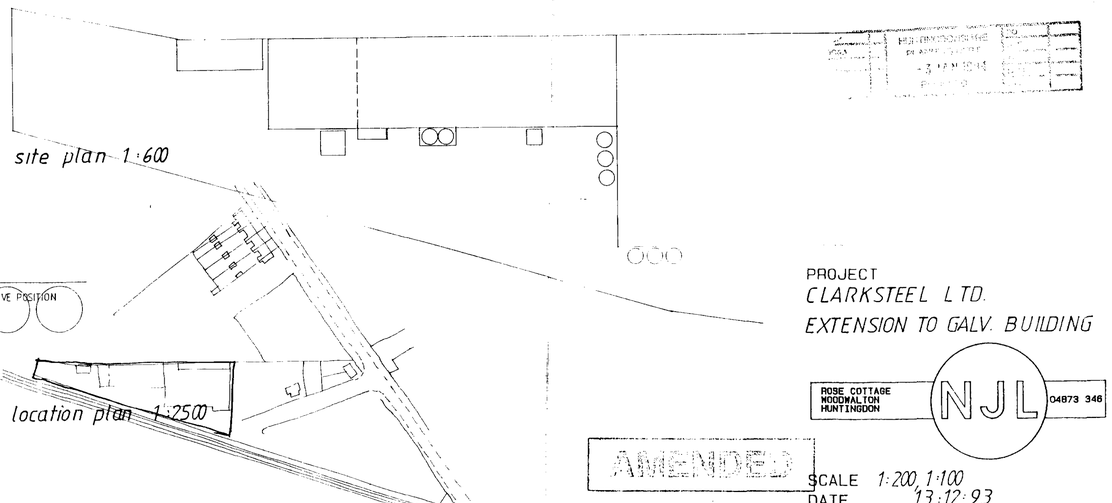
contract	015056		











site plan 1:600

location plan 1:2500

This plan sets out the additional proposals for upgrading at Clarksteel. It forms part of this planning application 95/1531 and sets out the basic requirements for a baghouse filter and miscellaneous moving the bulk further down the yard

DA 7/1/94

PROJECT
CLARKSTEEL LTD.
EXTENSION TO GALV. BUILDING

ROSE COTTAGE
WOODWALTON
HUNTINGDON
NJL
04873 346

AMENDED

SCALE 1:200, 1:100
DATE 13:12:93
REFERENCE 93/45/GAL/1 REV A