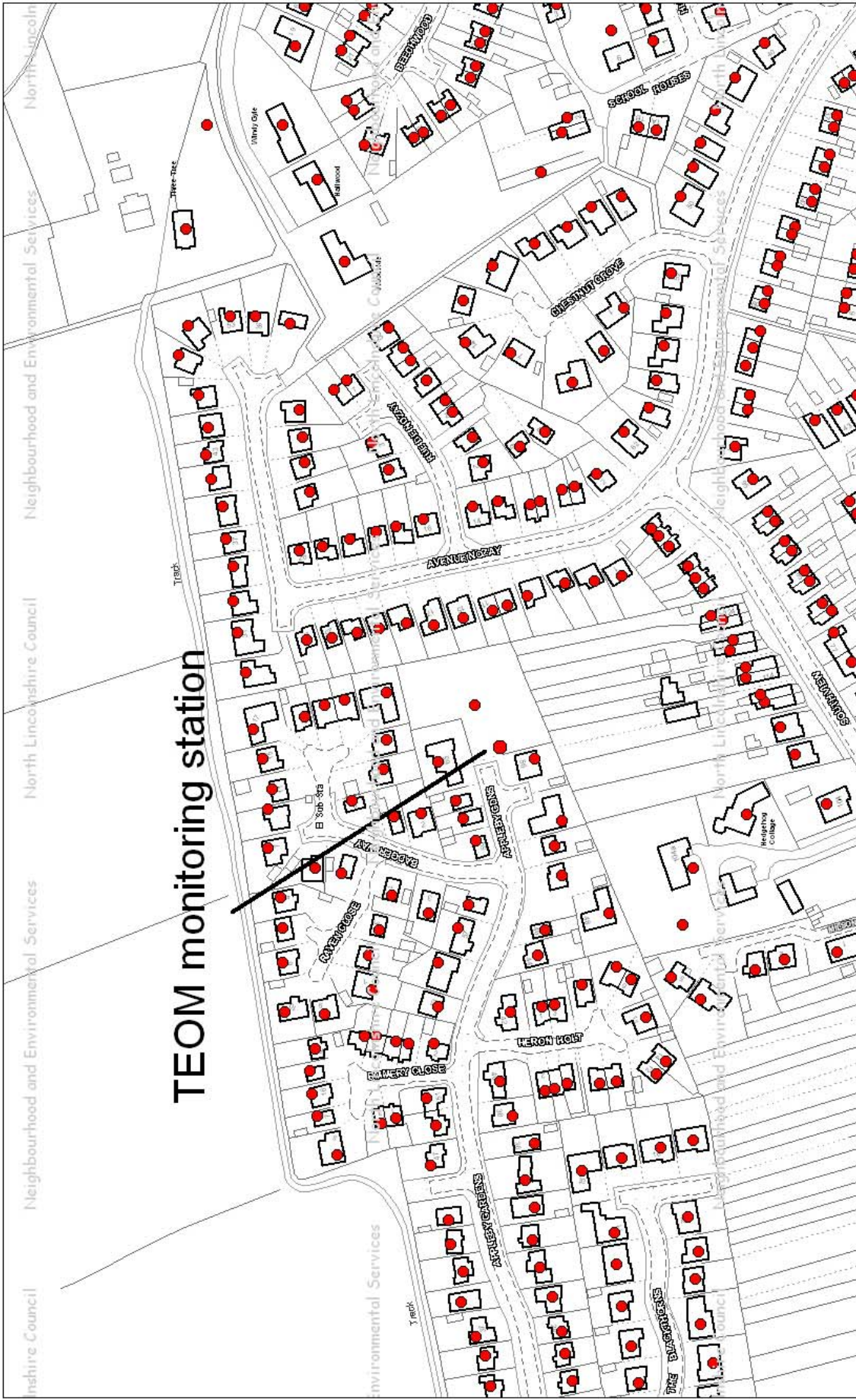


Figure A18: The location of the Appley Village monitoring station.



TEOM monitoring station



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NORTH LINCOLNSHIRE COUNCIL 100013349 2008

Drawing Title: Broughton PM10 monitoring station
Drawn by: JRF
Date: 11/04/2008
Scale: OS Grid Ref: SE96060943

Neighbourhood and Environmental Services
Head of Service,
Keith Ford (Bachelors), MCIET, MESH, MInstM



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Figure A19: The location of the Broughton monitoring station.

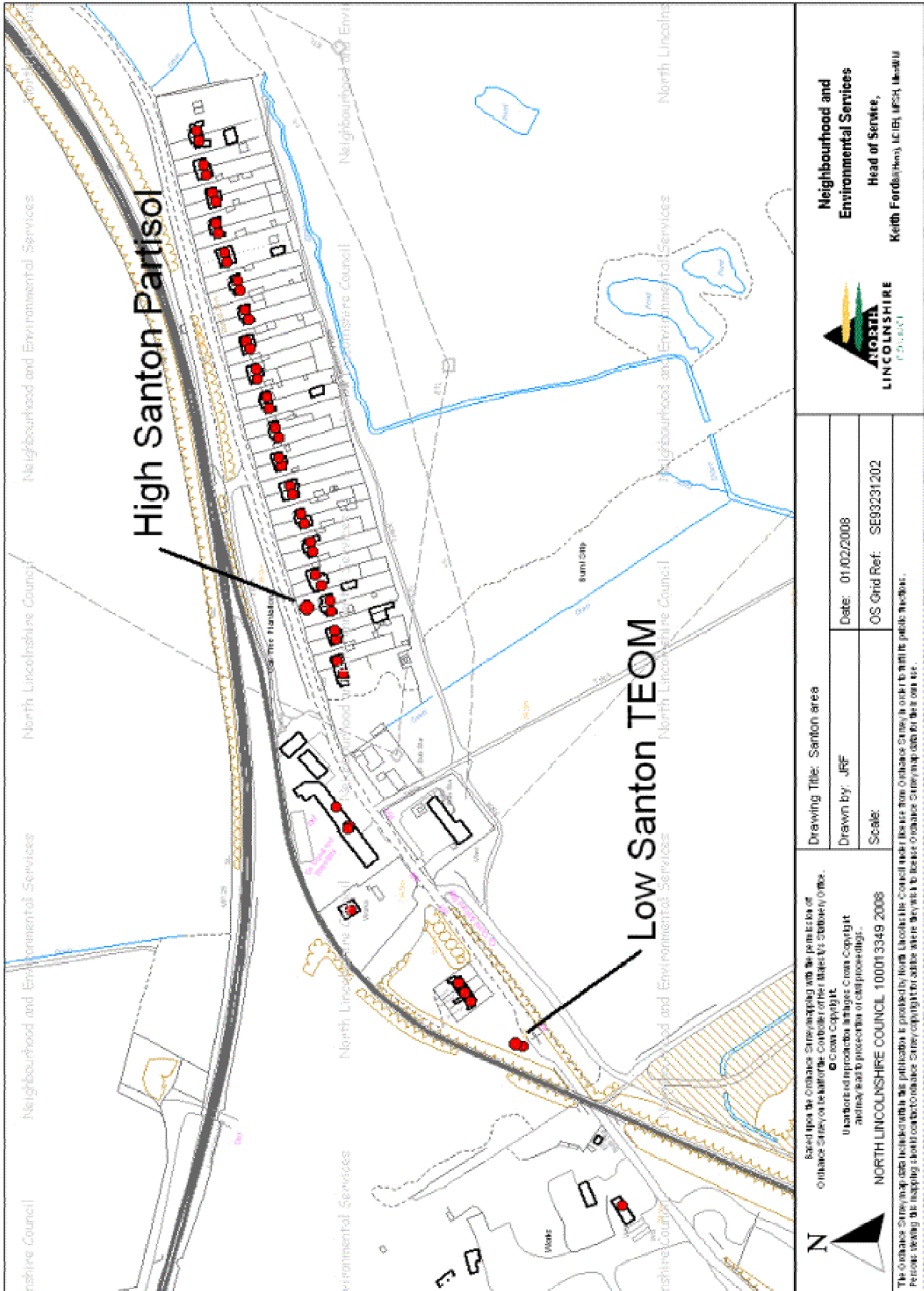


Figure A20: The locations of the Santon monitoring stations.

East Common Lane	Exceedances of the daily limit value	Highest daily concentration, ug m ⁻³	90.4th percentile, ug m ⁻³	Annual mean, ug m ⁻³	Data capture, %
2005 (from 3rd March)	35	160	53.0	28.0	99.7 *
2006	43	117	53.0	28.9	97.5
2007	34	129	49.2	27.5	99.7

Table A21: The number of PM₁₀ exceedances, annual mean, 90.4th percentile, highest daily concentration and data capture at East Common Lane.

* Period data capture quoted.

Killingholme	Exceedances of the Daily Limit value	Highest daily concentration, ug m ⁻³	90.4th percentile, ug m ⁻³	Annual mean, ug m ⁻³	Data capture, %
2003 (from 6th March)	16	82	43	27.2	97.7 *
2004	3	56	36	23.9	86.1
2005	7	56	37	24.0	98.4
2006	8	97	38	24.1	94.5
2007	6	75	32	23.2	88.8

Table A22: The number of PM₁₀ exceedances, annual mean, 90.4th percentile, highest daily concentration and data capture at Killingholme.

* Period data capture quoted.

Lincoln Gardens	Exceedances of the daily limit value	Highest daily concentration, ug m ⁻³	90.4th percentile, ug m ⁻³	Annual mean, ug m ⁻³	Data capture, %
2004 (from 1st December)	0	48	37.0	23.5	90.3 *
2005	9	80	37.0	23.3	98.4
2006	17	101	44.0	25.6	97.8
2007	14	91	35.1	22.8	100

Table A23: The number of PM₁₀ exceedances, annual mean, 90.4th percentile, highest daily concentration and data capture at Lincoln Gardens.

* Period data capture quoted.

Scunthorpe / Scunthorpe Town TEOM	Exceedances of the Daily Limit value	Highest daily concentration, ug m ⁻³	90.4th percentile, ug m ⁻³	Annual mean, ug m ⁻³	Data capture, %
1998	41	78	53.0	27.6	100
1999	45	161	55.0	29.5	99.2
2000	31	90	49.9	27.5	88.8
2001	49	146	59.3	31.8	93.7
2002	47	111	62.8	32.3	83.6
2003	95	152	81.0	39.4	98.6
2004 *	30	138	52.0	28.1	75.1
2005	25	91	41.9	24.9	97.5
2006	37	130	51.0	29.6	95.3
2007	18	98	40.7	25.0	98.1

Table A24: The number of PM₁₀ exceedances, annual mean, 90.4th percentile, highest daily concentration and data capture at Scunthorpe and Scunthorpe Town.

* Amalgamated data from Scunthorpe and Scunthorpe Town.

Figure A25: 2006 Pollution Rose

Please see file "Poll Roses 2006".

Figure A26: 2007 Pollution Rose

Please see file “Poll Roses 2007”.

Part 7: LA Support Helpdesk Response to North Lincs, received 2nd October 2007, Enquiry number 986:

"1. We believe North Lincs approach in deriving a 'local' correction factor for TEOM data is reasonable, especially given that particulate concentrations in the Scunthorpe area are likely to be affected by industrial emissions from the steelworks. Through collocation studies it has been shown that other factors provide closer agreement in the Scunthorpe area between TEOM and Partisol than the simple 1.3 factor (which we know to be generally pessimistic).

2. We agree that a daily correction factor will be most appropriate, given that the source and composition of the particulates will vary greatly at the sites depending upon the wind direction.

This approach has recently been advocated in France for producing a daily correction factor on a regional basis using one reference equivalent monitor (i.e. a Partisol in N Lincs case) to correct surrounding TEOM instruments.

On days where the reference equivalent instrument data are not available then a default factor would need to be settled upon - either from surrounding days or perhaps using a line of best fit approach to the annual data set. The key is to document the approach adopted in any Defra submissions to ensure transparency.

In using a local daily correction factor it is still important to at least consider the geographical relationship between monitoring stations and the main sources with regard to wind direction. The most appropriate factor would be very different for sites downwind to those upwind of the sources.

To expand on the above, when the co-location site is downwind of the sources the correction factor may be expected to be nearer unity (less volatiles) and therefore the factor should be representative of other TEOM sites potentially affected by the source (i.e. other sites also downwind). When the co-location site is upwind of the sources, the correction factor derived may be expected to be higher than for the sites downwind of the major sources. Thus the factor applied will therefore be conservative for the sites most at risk of exceedence. On this basis we believe the daily correction factor approach is sound in terms of not under reporting exceedences.

Note that any source apportionment work that may be undertaken is likely better carried out using unadjusted TEOM figures to minimise uncertainty introduced by correction factors.

3. A default correction factor (i.e. a line of best fit approach) could (with caution) be applied to earlier data from recent years to attempt to identify any trend.

4. The large number of exceedences in early 2006 (before installation of the Partisol) is thought to be due to a number of transboundary particulate episodes from forest fires etc. in Russia, which affected large parts of the UK. A similar event was also recorded across the UK in late March / early April 2007.

5. Installing a FDMS at East Common would, in our opinion, not be a good use of resources. If this did happen we would lose the ability to compare data from the various sites in and around Scunthorpe and it would also introduce a 3rd monitoring method into the mix.

A key factor is that both of the TEOM (and Partisol) sites are already in a declared AQMA, thus this work is not to decide whether declaration is necessary, as the decision has already been sanctioned by Defra. Rather the ongoing work is continued further monitoring used to keep a watching brief on the situation / identify where actions under any Action Plan in place are having any measurable impact on PM concentrations.

6. This advice may change if the North Lincs decided (on the basis of monitoring) that revocation / alteration of the AQMA in Scunthorpe was required. If evidence for this were based on monitoring that was marginal / dependent on the choice of factor, then the argument for decisions to be based upon an equivalent monitoring methodology would be strong."

Part 8: New Developments

Site Name	Planning Application Number	Description of Process	Grid reference	Comments
Land at Messingham Quarry, Brigg Road, Manton.	MIN/2007/0360	Extension of silica sand extraction operations with progressive restoration.	491595 403315	
Land to North and East of Melton Ross Quarries, Croxton.	MIN/2007/1129	Extension of quarry with restoration.	507975 412198	
Former Quarry at Redbourne Road, Hibaldstow.	MIN/2007/1759	Reopen and extend former quarry to produce building stone.	497154 400810	This application was refused on 29/02/2008, in list in case of appeal.
Former Kirton Cement works, Gainsthorpe Road East, Hibaldowstow.	WD/2007/2079	Retain use of land for preparation and composting of (in)organic material.	494906 401017	
Singleton Birch, Brigg Road, Croxton.	WD/2008/0044	Energy from waste plant.	508946 411762	Air Quality Assessment has been submitted.

Table A27: Mineral sites that have submitted planning applications, which have yet to be determined. Included to allow for easy reference for 2009 USA.

Table A28: PPC processes regulated by North Lincolnshire Council.

Operator	Process	SG or PG note	A2/B
Bemis Packaging Ltd	Coating Of Flexible Packaging	SG6	A2
Civil and Marine Ltd	Grinding of Blast Furnace Slag	SG3	A2
Corus Structural	Metal Coating	SG6	A2
Mondi Packaging Wheatley Ltd	Coating of Flexible Packaging	SG6	A2
William Blyth	Manufacture of heavy clay goods	SG7	A2
William Blyth	Manufacture of heavy clay goods	SG7	A2
AE Wilson	Respraying of Road Vehicles	PG6/34	B
Althorpe Wharf	Coal and Coke Products	PG3/5	B
AMS Bobcat	Waste Oil Burner	PG1/1	B
APS Grit Blasting	Respraying of Road Vehicles	PG6/34	B
* Aquarius	Dry Cleaners		B
C & G Concrete	Blending, packing, loading and use of bulk cement	PG3/1	B
Carbon International	Coal and Coke Products	PG3/5	B
Chenez	Manufacture of Timber Products	PG6/2	B
Corus UK Ltd	Coal and Coke Products	PG3/5	B
* CW Fields	Manufacture Wood/Timber	PG6/2	B
* CW Fields	Wood Coating Processes	PG6/33	B
Enob	Coating of Metal	PG6/23	B
Express Laundry Services	Dry Cleaners		B
Firth Rixon Casting	Melting of Ferrous Metal	PG2/4	B
G B Terminals	Respraying of Road Vehicles	PG6/34	B
Gefco	Respraying of Road Vehicles	PG6/34	B
George Kmita	Extraction of Aluminium from scrap	PG2/1	B
Go Car	Respraying of Road Vehicles	PG6/34	B
H&L Garage	Respraying of Road Vehicles	PG6/34	B
* Hargreaves	Coal, Coke, Coal Product and Petroleum Coke	PG3/5	B
Hartwell Ford	Respraying of Road Vehicles	PG6/34	B
Howarth Timber Importers	Manufacture of Timber Products	PG6/2	B
Jack Tighe Ltd	Coating of Metal	PG6/23	B
JHP Storage	Coal and Coke Products	PG3/5	B
* Johnsons (Three)	Dry Cleaners		B
Jotun Henry Clark	Manufacture of Paint	PG6/10	B
Just Car Clinic	Respraying of Road Vehicles	PG6/34	B
Lafarge Aggregates Ltd	Blending, packing, loading and use of bulk cement	PG3/1	B
Lebus Furniture	Manufacture of Timber Products	PG6/2	B
Lou's Tyres	Waste Oil Burner	PG1/1	B
Martyn Bell Motor Engineers	Waste Oil Burner	PG1/1	B
Mash Enterprises	Manufacture of Timber Products	PG6/2	B
* Mel Hudson	Waste oil burner	PG1/1	B
Minelco Minerals (Two)	Handling and processing minerals	PG3/15	B
* Morrisons	Dry Cleaners		B
Morris Young Motors Ltd	Respray Road Vehicles	PG6/34	B
New Holland Extraction	Extraction of Oil from seed	PG6/25	B
Nimmo Body Repairs	Respraying of Road Vehicles	PG6/34	B
Norec (Five)	Coal and Coke Products	PG3/5	B
North Killingholme Storage (Three)	Coal and Coke Products	PG3/5	B

North Lincolnshire Council	Crematoria	PG5/2	B
Oxford Motors	Waste Oil Burner	PG1/1	B
P.D Port Services	Coal and Coke Products	PG3/5	B
P.D Port Services	Blending, packing, loading and use of bulk cement	PG3/1	B
Quinton and Kains	Manufacture of Timber Products	PG6/2	B
Raintons of Ashby	Waste Oil Burner	PG1/1	B
* Rapter	Mobile crushing and screening	PG3/16	B
Ready Mix Concrete	Blending, packing, loading and use of bulk cement	PG3/1	B
Russell Ductile Castings Ltd	Melting of Ferrous Metal	PG2/4	B
Sandtoft Roof Tiles (Sandtoft Tileries)	Blending, packing, loading and use of bulk cement	PG3/1	B
Sandtoft Roof Tiles (Goxhill Tileries)	Blending, packing, loading and use of bulk cement	PG3/1	B
Skymark Performance Films	Coating of Flexible Packaging	PG6/17	B
Steetley Bentonite & Absorbants Ltd	Mineral Handling and Processing	PG3/15	B
Stoneacre	Respraying of Road Vehicles	PG6/34	B
Stoneledge	Mobile Crusher	PG3/16	B
Tarmac	Blending, packing, loading and use of bulk cement	PG3/1	B
Tarmac Roadstone	Road stone coating	PG3/15	B
Techrete UK	Blending, packing, loading and use of bulk cement	PG3/1	B
Thomson Metals	Mobile Crushing	PG3/16	B
Total UK	Storage of Petrol at Terminals	PG1/13	B
Transco Plc	Odorising of Natural Gas	PG1/15	B
Transco PLC	Odorising of Natural Gas	PG1/15	B
Trent Refractories	Blending, packing, loading and use of bulk cement	PG3/1	B
Truck Lincs	Waste Oil Burner	PG1/1	B
WBB Minerals	Mineral Handling and Processing	PG3/15	B
Welham Estates	Pet Food Manufacturing	PG6/24b	B
Woodside (precast) Concrete	Blending, packing, loading and use of bulk cement	PG3/1	B
Xpress Dry Cleaners	Dry Cleaners		B

Table A28 continued: PPC processes regulated by North Lincolnshire Council.

Note: * New operations since April 2006.