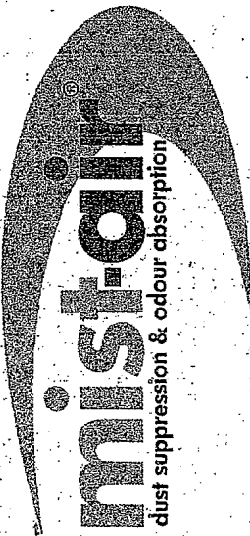


# **Appendix 18**

## **Mist-Air: Dust & Odour Suppression System Details**

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**mist-air** is simply a low cost system which produces large quantities of almost dry fog, which is propelled into the air, immediately suppressing rising airborne dust. Because it is so fine, it stays suspended in the air without sinking to the ground, so there is no wetting to floors, machinery, stock or personnel. You can walk in the fog without getting wet.

Fine airborne dust is attracted to the fog and the two combine and sink to the ground; but the floor stays dry.

Fog is directed towards the dust-producing areas and the constant bombardment of fog on the fine dust particles causes them to sink before they can get fully airborne. Delivering just as much or as little fog as you require for any given application.

The **mist-air** system is very controllable. Individual areas can be selected when required. For instance, a single building may house a wood chipper, trommel, stone crusher, screen and conveyor, all of which may each be used at different times. With the **mist-air** system you can select one or more of the operating areas as required.

Even the smallest **mist-air** system can supply a small building, or several large buildings at the same time.

Any size of building or piece of plant can be accommodated. The system is extremely flexible, allowing it to be easily expanded or moved. This is ideal for Companies that are expanding operations or moving into larger or newer premises at a later date.

#### Dust, Odours and Flies

**mist-air** is fitted with a chemical metering system for accurately delivering chemicals into the air, covering every inch of a building in seconds.

Used in conjunction with **mist-air neutraliser** and **mist-air insecticide** these can be safely used during the day when the buildings have staff working in them.

**mist-air** is the answer to Dust Flies and Odours for putrescence waste, preventing lung and eye diseases in hazardous areas, all at a low cost.

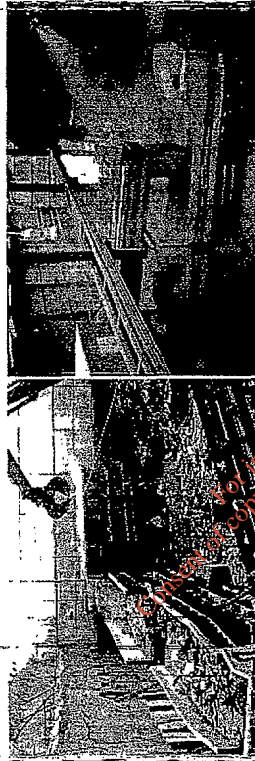
The E.A. & neighbourhood groups recognise **mist-air** as the accepted method for curing complaints on waste & composting sites.

#### Carries

Lines of stone conveyors of any length can be accommodated, i.e. throughout a quarry, killing dust as it drops from one belt to another. Outdoor shredders, trommels, hoppers, and screens, are also treated effectively.

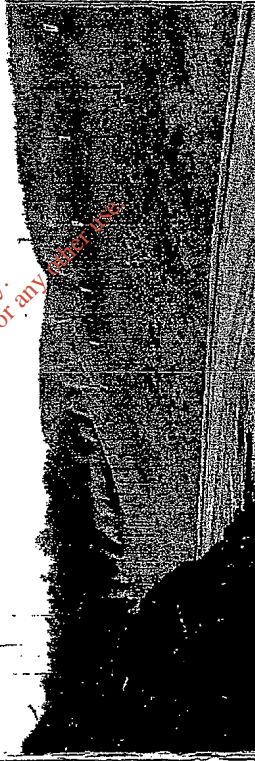
The largest single building treated to date is a cement storage building 300m x 100m which constantly drops dry, crushed limestone 15 meters front overhead conveyors.

The **mist-air** system keeps the air clear, enabling crane drivers to see what is happening around them. When the system is switched off, visibility is immediately reduced to zero!



#### Site Perimeters / Landfill

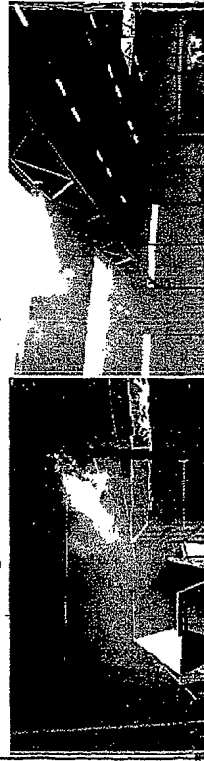
**mist-air** provides fogging around site perimeters of landfill, composting and specialised treatment areas for odours and particulate treatment. Rapidly Installed up to 5 km. in length.



#### Cooling

An additional benefit is that flash evaporation also cools the air in hot weather, dropping the temperature by up to 9°C.

Foundry men working next to furnaces etc., can have localised cooling, to make working conditions far more acceptable.



## You have a site which has a dust problem What are your options?

### Negative Pressure & Dust Extraction

- ✗ Expensive to install. High running cost. High maintenance
- ✗ Cannot accommodate all the dust producing areas associated with tipping, loading, crushing, screening, trommels & conveyors.
- ✗ Dust constantly drawn through the building towards the extractors which are normally mounted high to avoid machinery, so operatives have a constant stream of dust going past them.

### Misting Lines in the Roof

- ✗ Poor distribution. As the mist slows down, the droplets join together causing wetting directly under the misting line.

### Reciprocating Rotary Atomisers

- ✗ Expensive per fan unit. Limited to covering just a small localised area.
  - ✗ Limited applications. Can only be operated with a fan.
  - ✗ High speed rotors Increase wear rate & life expectancy.
- ### Sprinkler System
- ✗ Fine for roadways and open yards, but wets everything inside a building, causing vehicles to slide, increases the weight of waste going to landfill & generally produces slime everywhere.

### mist-air Systems

- ✓ Kills airborne dust as it forms, where it's formed, suppressing dust before it can get blown around the building
- ✓ Fog is distributed, evenly throughout the building separately the fog particles as they form which prevents wetting.
- ✓ Different delivery systems are used dependant on the application, i.e. the conveyor entrance to picking sheds, outside trommels, hidden misting nozzles in wood and stone crushing hoppers both indoors and outdoors.
- ✓ Installed normally within one day
- ✓ Immediate emergency fitting service available
- ✓ Low purchase and installation cost
- ✓ Low running costs
- ✓ Average maintenance time each year - 30 minutes
- ✓ Manufactured from stainless steel, sp long life
- ✓ Low maintenance

There are hundreds of Companies successfully using **mist-air** throughout the World including:-

Transfer Stations, Quarries, Cement works, Foundries, Factories  
Fragmentation Plants, Landfill Sites, Waste Water Treatment Works  
Chemical Treatment Works, Composting Sites, Recycling Works re-cycling timber, rubber, glass, stone, soil, steel, wood, paper . . .

**Why not talk to them ?**

Effectively absorbed by mist-air odour neutraliser

**gent Smells:**

Thiol	CH2CHCH2SH	Strong garlic, coffee
thia	NH310	Sharp pungent
zyl Thiol	C6H5CH2SH	Unpleasant, strong
ienyl Sulphide	(C6H5)2S	Unpleasant
rine	Cl2	Pungent, suffocating
ro Phenol	C6H4OHCL	Unpleasant, penetrating
yl Mercaptan	CH3CHCH2SH	Skunk like
ilyamine	(C4H9)2NH	Fishy
propylamine	(C3H7)2HN	Fishy
thylamine	(C2H5)3N	Ammonia, fishy
/amine	C2H5NH2	Ammonia like
/amine	C2H5CHNH2CH3	Ammonia, sour
ropanethiol	CH3CH2CH2SH	Very strong onion
dine	C5H5N	Nauseating, irritating
hur Dioxide	SO2	Pungent, irritating
ene	C6H5CH3	Benzene like
ialdehyde	CH3CHO	Pungent, fruity
ocresol	CH3C6H4SH	Skunk, rancid
lethyl-2-Butanethiol	(CH3)3CSH	Skunk, unpleasant

**Irid Smells:**

Javertine	H2N(CH2)5NH2	Putrid, decaying flesh
-Diaminobutane	NH2(CH2)4NH2	Putrid, nauseating
nethylamine	(CH3)2NH	Putrid, fishy
nethyl Sulphide	(CH3)2S	Decaying vegetables
ianethiol	C2H5SH	Decayed cabbage
drogen Sulphide	H2S	Rotten eggs
ole	C6H6NH	Fecal nauseating
lorophenol	C1C6H5O	Medicinal
thylamine	CH3NH2	Strong, ammonia
nianethiol	CH3(CH2)3CH2SH	Unpleasant, putrid
atole	C6H9N	Fecal, nauseating
locresol	CH3C6H4SH	Skunk, rancid
iophenol	C6H5SH	Putrid, garlic like

**typical usages:**

landfill Sites, Stored Putrescence Waste, Wet Baling Plants, Waste Water Treatment Works, Sludge Treatment Works, Chemical treatment Works, Abattoirs, Composting Works.

am interested . . .

**what do I do now ?**

Contact Mist-Air today for more information, or send a drawing or sketch of your site and we will design the system and return the drawings with a quotation completely free of charge.

**About Mist-Air**

Mist-Air was formed in 1965. We Design and Manufacture all our own products in our factory in Shropshire, Great Britain. Our team of specialists ensure your system is built and installed as well as you would want it to be. Mist-Air is not tied to a single design but can use the most cost effective system for your application. Dedicated installation teams professionally install your system whilst the building is still operational.

**Mist-Air manufactures:**

- Mistral Power Washers & Wheel Washing Equipment for Industry & Agriculture
- Mistral Automatic Sprinkler systems for yards and roadways
- Mist-Air Dust & Odour Suppression Systems
- Mist-Air Chemicals for Cleaning, Odour Neutralising & Insecticides
- Mist-Air Foam Generators for Quarries
- Mist-Air Sonic and Air nozzles
- Mist-Air Reciprocating Rotary Atomisers
- Dust and Odour Suppression Systems for Hire, short or long term

✓ If Mist-Air design & install a system for you, we give you a money-back guarantee if you are not satisfied with it! ✓

**Mist-Air Dust Suppression Systems**

Head Office:  
PO Box 10 Oswestry  
Shropshire SY10 9JF  
Tel: +44 (0) 7 071 666 000  
Fax: +44 (0) 1691 828 499  
Email: [info@mist-air.co.uk](mailto:info@mist-air.co.uk)  
Branches in UAE, Europe & America

**mist-air**  
dust suppression & odour absorption

airborne dust, odours  
& flies a problem?

doesn't have to be...



# Appendix 19

## Noise Results

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Ted O'Donoghue and Sons Ltd Waste Disposal  
NOISE SURVEY

Date: 29<sup>th</sup> July 2004

**Border Locations (BL)**

Location	Weather	Time Start	Duration	L5	L10	L50	L90	Leq	Comments
N1. site entrance	Mild, slight rain and breeze	8.22	30 min	57.5	50.4	39.4	33.7	57.1	Noise sources included, a skip truck entered and left the site during measurements. There were some waste handling inside transfer station Background noise sources were dog barking few minutes and bird song. Passing traffic on the country road includes: 4 cars and 1 lorries.
N2. South-east corner of site	Mild, slight rain and breeze	9.05	30 min	50.9	48.9	44.9	40.7	47.5	Noise sources were as follows: manual and mechanical sorting of waste in transfer station building. Some background noise from bird song.
N3. North-west corner of site	Mild, slight rain and breeze	9.45	30 min	60.9	53.8	40.6	24.9	59.2	Audible noise sources included some metal cutting at a skip bin beside the weighbridge. There was also a skip unloading waste inside the transfer station.

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**Border Locations (BL)**

Location	Weather	Time Start	Duration	L5	L10	L50	L90	Leq	Comments
N4. Near east boundary of site	Mild, slight breeze and sunny spells	10.45	30 min	79.4	72.7	58.8	30.8	72.6	Noise sources were; skip truck unloading skip containing soil approximately 6metres from noise meter. The tromell was in use for 15mins processing some commercial mixed waste.
N2. South-east corner of site	Mild, slight breeze and sunny spells	12.35	30 min	59.6	58.0	48.0	42.1	54.2	REL unloaded waste in transfer station. Some manual sorting of waste. Excavator loaded waste to ejector trailer. Some background noise from cattle in field to rear of transfer station.
N3. North-west corner of site	Mild, slight breeze and sunny spells	13.25	30 min	63.4	60.0	53.1	49.0	58.3	Audible noise sources included some manual sorting of waste. Excavator loading waste to ejector trailer. 2 x skip loads tipped inside transfer station for processing. No background noise.

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Noise Sensitive Locations (NSL)

Location	Weather	Time Start	Duration	L5	L10	L50	L90	Leq	Comments
N5. In field between McCarthy and O'Connor residence	Mild, slight breeze and overcast	11.52	30 min	48.6	46.2	38.3	33.0	43.2	Audible noise from metal cutting at skip bins on site. A skip truck entered site, unloaded in transfer station and left again. Some mechanical movement of waste was evident also. Background noise from birdsong, and passing traffic. Traffic on road included: 2 cars, and a tractor with trailer. A plane passed overhead.
N6. Near to Downey's residence at side of public road and south-west of site	Mild, slight breeze and overcast	14.42	20 min	60.0	53.2	43.6	38.1	63.0	No audible noise from waste activities on-site. Background noise from passing traffic (5 cars and 2 tractors with trailers). A plane passed overhead.
N7. In field (5 metres off public road) and beside Ford's farmyard	Mild, slight breeze and overcast	15.08	20 min	48.7	47.0	42.9	38.8	48.3	No audible noise from waste activities on-site. Background noise from passing traffic (5 cars and 1 van). Also trees rustling and some bird song.

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