

Light Rail (UK) Ltd.

Warrington Business Park,
Long Lane, Warrington,
Cheshire, England,
United Kingdom.

Tel +44 (0) 1925 243500, Fax 243000

E-mail tachographsuk@aol.com

“Oslo PM Report”

A

Summary

About Particulate Matters

from

Passenger Transport

In Oslo,

("Svevestøv fra persontransport i Oslo.

En beregning av mengder og kostnader"),

By

Otto Andersen

Of the

*Vestlandsforsking Research Centre.

Summary translated by Roy Budmiger

www.vestforsk.no/dok/samandrag/r14-98.asp



A member of the Transport & Training Services Group.

*A not for profit Company promoting sustainable transport.
Registered in England, United Kingdom No 04533783*

Light Rail (UK) Ltd.



Warrington Business Park,
Long Lane, Warrington,
Cheshire, England,
United Kingdom.

Tel +44 (0) 1925 243500, Fax 243000

E-mail tachographsuk@aol.com

Summary 1998

Undertaken 1998 based on figures from 1996 and projected to date (2006)

Particles are divided into five main categories

-Exhaust from combustion engines

-Asphalt wear

-Tyre wear

-Brake wear

***-Fine grinding of larger particles already torn
loose from the road surface***

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.



A member of the Transport & Training Services Group.

*A not for profit Company promoting sustainable transport.
Registered in England, United Kingdom No 04533783*

Light Rail (UK) Ltd.



Warrington Business Park,
Long Lane, Warrington,
Cheshire, England,
United Kingdom.

Tel +44 (0) 1925 243500, Fax 243000

E-mail tachographsuk@aol.com

7.

8. Exhaust from combustion engines:

PM 2.5 + PM 10. 133 tons/year.

A total 75% (99.75tons/year) are from private cars, and 25% (33.25ton/year) from buses and taxis.

A total of bus & taxi emissions of **332.5 tons** by 2006

9. Asphalt wear:

PM 2.5+PM10: - 179 tons/year.

A total 93% (166.47tons) are from private cars, 12.53 tons (7%) from buses and taxis.

This type of emission is anticipated to drop, by 35-71% depending on how the modal split will be due to tyre dubs being banned or highly taxed in Oslo.

There will be no reduction in the bus calculation, as bus & trolley bus do not use dubbed tyres.

A total of bus & taxi emissions of **125.3 tons** by 2006



A member of the Transport & Training Services Group.

*A not for profit Company promoting sustainable transport.
Registered in England, United Kingdom No 04533783*

Light Rail (UK) Ltd.



Warrington Business Park,
Long Lane, Warrington,
Cheshire, England,
United Kingdom.

Tel +44 (0) 1925 243500, Fax 243000

E-mail tachographsuk@aol.com

10.

Tyre wear:

PM 2.5+PM 10:116 tons/year.

93 % (107.88 tons) are from private cars, 8.12tons (7%) from buses and taxis.

A total of bus & taxi emissions of **81.20 tons** by 2006

11.

Brake wear:

PM2.5+PM10: 55 tons/year.

A total 90% (49.5 tons) are from private cars, 5.5 tons (10%) from buses and taxis.

A total of bus & taxi emissions of **55 tons** by 2006

12.

Fine grinding of larger particles already torn loose from the road surface:

PM2.5+PM10: 78 tons/year.

A total 94% (73.32tons) are from private cars, 4.68tons (6%) from buses and taxis.

A total of bus & taxi emissions of **46.80 tons** by 2006



A member of the Transport & Training Services Group.

*A not for profit Company promoting sustainable transport.
Registered in England, United Kingdom No 04533783*

Light Rail (UK) Ltd.

Warrington Business Park,
Long Lane, Warrington,
Cheshire, England,
United Kingdom.

Tel +44 (0) 1925 243500, Fax 243000

E-mail tachographsuk@aol.com

Summary

The total tonnage for clean bus & taxi in the urban area by 2006 are as follows:-

-Exhaust from combustion engines	332.5 tons
-Asphalt wear	125.3 tons
-Tyre wear	81.20 tons
-Brake wear	55.0 tons
-Fine grinding of larger particles already torn loose from the road surface	46.80 tons
Total Pollution	<u>640.8 tons</u>

Unfortunately the summary does not give separate figures for buses and taxis.

A separate report from 2003 shows that private cars in Oslo made 3212 million person-km compared to taxis 175 million.

Assuming the number of persons in private cars and taxis being the same and assuming taxis pollute the same as private cars, then taxis should add 5.2% to the private car figures (and reduce the same from buses only).

The direct pro rata costs incurred of Bus & Taxi pollution are apparently not included in full when the Cost Benefit Ratio (s) are calculated by DFT.

This results in a bias toward bus based systems and not the level playing field that is currently claimed by the UK Government's statement that Trams & Light Rail are too expensive



A member of the Transport & Training Services Group.

*A not for profit Company promoting sustainable transport.
Registered in England, United Kingdom No 04533783*

Light Rail (UK) Ltd.

Warrington Business Park,
Long Lane, Warrington,
Cheshire, England,
United Kingdom.

Tel +44 (0) 1925 243500, Fax 243000

E-mail tachographsuk@aol.com

Provenance

Data for the "Oslo Report" supplied from a study

: "Svevestøv fra persontransport i Oslo.

En beregning av mengder og kostnader",

by Otto Andersen of the

*Vestlandsforskning Research Centre.

Summary translated by Roy Budmiger

www.vestforsk.no/dok/samandrag/r14-98.asp

*Western Norway Research Institute (WNRI)

Objectives

WNRI contributes to development and innovation in the public and industrial sectors by delivering re and knowledge of a high standard. Our work will contribute to increased insight, adaptability in terms of reorganisation, as well as innovation, particularly within the policy formulation, management, industrial development, and formation of value.

Organisation

WNRI is a non-profit foundation, established as an independent research institute in 1985. The institute is part of Norway's national research system, and has a close co-operation with

The Regional College of Sogn og Fjordane.

WNRI employs a staff of 30.

A member of the Transport & Training Services Group.

*A not for profit Company promoting sustainable transport.
Registered in England, United Kingdom No 04533783*

