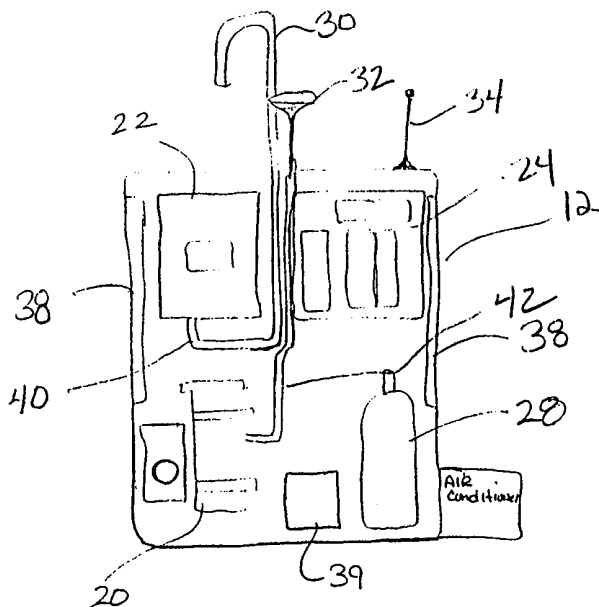




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁷ : G01N 33/00, B60H 3/00, F24F 11/00</p>	<p>A3</p>	<p>(11) International Publication Number: WO 00/13010 (43) International Publication Date: 9 March 2000 (09.03.00)</p>
<p>(21) International Application Number: PCT/US99/19789 (22) International Filing Date: 30 August 1999 (30.08.99) (30) Priority Data: 09/143,699 28 August 1998 (28.08.98) US (71) Applicant (for all designated States except US): GEOENVIRONMENTAL, INC. [US/US]; 320 Needham Street, Newton Upper Falls, MA 02164 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): FASANO, Adam, M. [US/US]; 143 Fairfield Street, Needham, MA 02194 (US). (74) Agents: KELLY, Edward, J. et al.; Foley, Hoag & Eliot, LLP, One Post Office Square, Boston, MA 02109 (US).</p>	<p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report.</i></p> <p>(88) Date of publication of the international search report: 2 June 2000 (02.06.00)</p>	

(54) Title: SYSTEMS AND METHODS FOR FENCELINE AIR MONITORING OF AIRBORNE HAZARDOUS MATERIALS



(57) Abstract

The invention provides systems for perimeter air quality monitoring that can establish background levels of target contaminants in ambient air prior to initiation of remedial activities. The systems can develop remedial action levels that are protective of the public health for dust and vapors at the remediation property, and can monitor and document fence line ambient air levels of target contaminants during remedial activities. Accordingly the systems and process allow for evaluation of the need for dust or vapor control measures to reduce airborne containment levels to below levels of concern.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon			PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/19789

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G01N33/00 B60H3/00 F24F11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 G01N B60H F24F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 754 911 A (COMEX TECHNOLOGIES) 24 April 1998 (1998-04-24)	1-8, 13-21, 23-25, 34
Y	page 5, line 3-26	2, 8-13, 16, 22, 24-28
A	page 6, line 25-33 page 7, line 15-27 page 8, line 27 -page 12, line 10 figure 1	29, 32
X	EP 0 527 307 A (ALENIA AERITALIA & SELENIA) 17 February 1993 (1993-02-17)	1, 8, 14, 15, 18, 21, 22, 34
Y	the whole document	2, 8-13, 16, 22, 24-28
A		29, 32
	-/--	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

16 March 2000

Date of mailing of the international search report

28/03/2000

Name and mailing address of the ISA
 European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Meyer, F

INTERNATIONAL SEARCH REPORT

Inte: .ional Application No
PCT/US 99/19789

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 704 607 A (TEATHER ROY ET AL) 3 November 1987 (1987-11-03)	34
Y	column 2, line 47,48	8,10-12, 24,26-28
A	column 37-10; figure 3 -----	29,32
X	EP 0 448 360 A (WESTINGHOUSE ELECTRIC CORP) 25 September 1991 (1991-09-25)	34
Y	column 3, line 37 -column 5, line 45	2,8-11, 13,16, 22,25-28
A	-----	29,32

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inte. onal Application No

PCT/US 99/19789

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2754911 A	24-04-1998	NONE	
EP 0527307 A	17-02-1993	IT 1246618 B	24-11-1994
US 4704607 A	03-11-1987	AT 70138 T DE 3584818 A EP 0180423 A JP 61118900 A NO 174648 B	15-12-1991 16-01-1992 07-05-1986 06-06-1986 28-02-1994
EP 0448360 A	25-09-1991	JP 4221790 A	12-08-1992