Puget Sound Clean Air Agency

110 Union Street, Suite 500
Seattle, WA 98101-2038
phone 206-343-8800/1-800-552-3565
fax 206-343-7522 www.pscleanair.org

Compliance Status Report

Case No. Registration No. **11339** Evaluation Date: 4/13/2004 Time:

Name		Responsible Person, Title	
Ash Grove Cement Company		**Craig Puljan, Plant Manager**	
Location (Address)	City	Zip	County
3801 E. Marginal Way So.	**Seattle, WA**	**98134**	**King**
Mailing Address	City, State	Zip	Phone
As Above	**Seattle, WA**	**98134**	**(206) 623-5596**

☐ I observed no violations of our Agency's regulations

☐ I could not make a compliance determination because:

☐ I need to consult with others. I will share my conclusions with you either in person, over the phone, or in writing by

☒ I need more information. Please submit the following information within 10 days of your receipt of this notice.

During our review of the SSMP portion of your semiannual Neshap Summary report, this Agency was unable to determine if Ash Grove took actions during all start ups, shut downs, and malfunction periods consistent with the procedures in the start up, shut down, malfunction plan. As we discussed during our telephone conversation on 4/13/04, please retroactively complete and submit malfunction reports for each of the four shut down incidents that Ash Grove failed to document during the semiannual period 7/01/03-12/31/03. Pursuant to 40 CFR 63.10(b)(2)(i) Ash Grove shall maintain records of the occurrence and duration of each in-line kiln/raw mill system start up, shut down, or malfunction of operation.

Issued by: *Elizabeth Gilpin* Date/Time: 4/19/04

Received by _____ _____
signature *print name*

Signing this document is not an admission of guilt

626705

Form No. 70-182 (11/02) LSS

AGCS2M000752

MALFUNCTION REPORT FORM/WORK REQUEST

Ash Grove Cement Company – Seattle, Washington

Affected Source No:	316. MR 1	Revision No. 2
Affected Source Name:	Raw mill	Revision Date: 02/02/2004

Observer Information

Name	Date of Malfunction or Event	Time of Malfunction or Event		Type of Malfunction or Event (See Codes Below)	Baghouse Inlet 3 hr. Average Temperature Exceeded? (Check One)	
					Yes	No
Craig Mifflin	Start: 8-23-03	Start: 12:20	AM / PM	6.2		X
	Stop: 8-24-03	Stop: 7:07	AM / PM			

CODE	TYPE OF MALFUNCTION		TYPE OF MALFUNCTION
6.1	System Wide Failure of Electrical Power	6.4	Unplanned Shutdown of Equipment
6.2	Mech., Elec., or Instrument Failure of System Component	6.5	Baghouse Failure
6.3	Blockage/Material Restriction	CMS	CMS Malfunction for BH Thermocouple (See SOP)

CODE	OTHER EVENTS	SPECIAL INSTRUCTIONS
SS	Startup or Shutdown Out of Sequence (Requires notification to PSCAA.)	Describe New Sequence and Reason for Not Following Existing SOP Sequence. List if Excess Emissions or Parameter Monitoring Exceedances are Believed to have Occurred. (Use Additional Page if Necessary.)
OT	Other Malfunction	(Requires notification to PSCAA.) Notify Supervisor

Corrective Action Taken: (See Codes Reverse Side)				
6.2				

Startup procedures followed	YES	NO	(Circle One)

Name (print): Craig Mifflin **Signature:** [signature] **Date:** 5-6-04

Corrective Action Work Request Numbers
N/A

MALFUNCTION REPORT FORM/WORK REQUEST

Ash Grove Cement Company – Seattle, Washington

Affected Source No:	3/6 . MR 1	Revision No. 2
Affected Source Name:	Raw mill	Revision Date: 02/02/2004

Observer Information

Name	Date of Malfunction or Event	Time of Malfunction or Event		Type of Malfunction or Event (See Codes Below)	Baghouse Inlet 3 hr. Average Temperature Exceeded? (Check One)	
					Yes	No
Craig Mifflin	Start: 8-21-03	Start: 3:15	AM PM	6.2		X
	Stop: 8-21-03	Stop: 6:20	AM PM			

CODE	TYPE OF MALFUNCTION		TYPE OF MALFUNCTION
6.1	System Wide Failure of Electrical Power	6.4	Unplanned Shutdown of Equipment
6.2	Mech., Elec., or Instrument Failure of System Component	6.5	Baghouse Failure
6.3	Blockage/Material Restriction	CMS	CMS Malfunction for BH Thermocouple (See SOP)

CODE	OTHER EVENTS	SPECIAL INSTRUCTIONS
SS	Startup or Shutdown Out of Sequence (Requires notification to PSCAA.)	Describe New Sequence and Reason for Not Following Existing SOP Sequence. List if Excess Emissions or Parameter Monitoring Exceedances are Believed to have Occurred. (Use Additional Page if Necessary.)
OT	Other Malfunction	(Requires notification to PSCAA.) Notify Supervisor

Corrective Action Taken: (See Codes Reverse Side)				
6.2				

Startup procedures followed	YES	NO	(Circle One)

Name (print): Craig Mifflin **Signature:** [signature] **Date:** 5-6-04

Corrective Action Work Request Numbers
NA

MALFUNCTION REPORT FORM/WORK REQUEST

Ash Grove Cement Company – Seattle, Washington

Affected Source No:	4/6	Revision No. 2
Affected Source Name:	Kiln	Revision Date: 02/02/2004

Observer Information

Name	Date of Malfunction or Event	Time of Malfunction or Event		Type of Malfunction or Event (See Codes Below)	Baghouse Inlet 3 hr. Average Temperature Exceeded? (Check One)	
					Yes	NO
Craig Mifflin	Start: 10-16-03	Start: 23:13	AM / PM	6.1		X
	Stop: 10-17-03	Stop: 1:10	AM / PM			

CODE	TYPE OF MALFUNCTION		TYPE OF MALFUNCTION
6.1	System Wide Failure of Electrical Power	6.4	Unplanned Shutdown of Equipment
6.2	Mech., Elec., or Instrument Failure of System Component	6.5	Baghouse Failure
6.3	Blockage/Material Restriction	CMS	CMS Malfunction for BH Thermocouple (See SOP)

CODE	OTHER EVENTS	SPECIAL INSTRUCTIONS
SS	Startup or Shutdown Out of Sequence (Requires notification to PSCAA.)	Describe New Sequence and Reason for Not Following Existing SOP Sequence. List if Excess Emissions or Parameter Monitoring Exceedances are Believed to have Occurred. (Use Additional Page if Necessary.)
OT	Other Malfunction	(Requires notification to PSCAA.) Notify Supervisor

Corrective Action Taken: (See Codes Reverse Side)				
6.1				

Startup procedures followed	YES	NO	(Circle One)

Name (print): Craig Mifflin **Signature:** [signature] **Date:** 5-6-04

Corrective Action Work Request Numbers
N/A

MALFUNCTION REPORT FORM/WORK REQUEST

Ash Grove Cement Company – Seattle, Washington

Affected Source No:	4/6	Revision No. 2
Affected Source Name:	Kiln	Revision Date: 02/02/2004

Observer Information

Name	Date of Malfunction or Event	Time of Malfunction or Event		Type of Malfunction or Event (See Codes Below)	Baghouse Inlet 3 hr. Average Temperature Exceeded? (Check One)	
					Yes	No
Craig Miffin	Start: 9-7-03	Start: 23:25	AM / PM	6.1		
	Stop: 9-7-03	Stop: 7:20	AM / PM			

CODE	TYPE OF MALFUNCTION		TYPE OF MALFUNCTION
6.1	System Wide Failure of Electrical Power	6.4	Unplanned Shutdown of Equipment
6.2	Mech., Elec., or Instrument Failure of System Component	6.5	Baghouse Failure
6.3	Blockage/Material Restriction	CMS	CMS Malfunction for BH Thermocouple (See SOP)

CODE	OTHER EVENTS	SPECIAL INSTRUCTIONS
SS	Startup or Shutdown Out of Sequence (Requires notification to PSCAA.)	Describe New Sequence and Reason for Not Following Existing SOP Sequence. List if Excess Emissions or Parameter Monitoring Exceedances are Believed to have Occurred. (Use Additional Page if Necessary.)
OT	Other Malfunction	(Requires notification to PSCAA.) Notify Supervisor

Corrective Action Taken: (See Codes Reverse Side)				
6.1				

Startup procedures followed	YES	NO	(Circle One)

Name (print): Craig Miffin **Signature:** [signature] **Date:** 5-6-04

Corrective Action Work Request Numbers
NA

ASH GROVE CEMENT COMPANY

WESTERN REGION

May 7, 2004

Ms. Elizabeth Gilpin
Puget Sound Air Pollution Control Agency
110 Union Street, Suite 500
Seattle, WA. 98101-2038

Re: Compliance Status Report – dated 4/19/04

Dear Ms. Gilpin:

Please find the completed malfunctions reports requested by the above Compliance Status Report.

The semiannual NESHAP Summary report submitted January 28, 2004 reported four occasions where a malfunction report required by the standard operating procedure in the facility's operation and maintenance plan were not completed for equipment shutdowns. The appropriate documentation was not completed for the following occasions:

21 August 2003: Raw Mill shutdown for mechanical component failure
23 August 2003: Raw Mill shutdown for mechanical component failure
07 September 2003: Kiln shutdown resulting from a power outage.
17 September 2003: Kiln shutdown resulting from a power outage.

These equipment shutdowns did not result in an excess of the emission limitations or operating parameter specified in section 63.10 (e)(3)(vi)(E) of the report. The enclosed malfunction reports document the date and time of each shutdown and subsequent startup, the type of malfunction, corrective action taken, and that startup procedures were followed.

If Ash Grove can provide any further information, please contact me.

Yours truly,

Gerald J. Brown
Manager Safety and Environment

cc: Craig Puljan, Plant Manager
Craig Mifflin Production Manager

MALFUNCTION REPORT FORM/WORK REQUEST

Ash Grove Cement Company – Seattle, Washington

Affected Source No:	316. MR 1	Revision No. 2
Affected Source Name:	Raw mill	Revision Date: 02/02/2004

Observer Information

Name	Date of Malfunction or Event	Time of Malfunction or Event		Type of Malfunction or Event (See Codes Below)	Baghouse Inlet 3 hr. Average Temperature Exceeded? (Check One)	
					Yes	No
Craig Moffitt	Start: 8-23-03	Start: 12:20	AM / PM	6.2		X
	Stop: 8-24-03	Stop: 7:07	AM / PM			

CODE	TYPE OF MALFUNCTION		TYPE OF MALFUNCTION
6.1	System Wide Failure of Electrical Power	6.4	Unplanned Shutdown of Equipment
6.2	Mech., Elec., or Instrument Failure of System Component	6.5	Baghouse Failure
6.3	Blockage/Material Restriction	CMS	CMS Malfunction for BH Thermocouple (See SOP)

CODE	OTHER EVENTS	SPECIAL INSTRUCTIONS
SS	Startup or Shutdown Out of Sequence (Requires notification to PSCAA.)	Describe New Sequence and Reason for Not Following Existing SOP Sequence. List if Excess Emissions or Parameter Monitoring Exceedances are Believed to have Occurred. (Use Additional Page if Necessary.)
OT	Other Malfunction	(Requires notification to PSCAA.) Notify Supervisor

Corrective Action Taken: (See Codes Reverse Side)				
6.2				

Startup procedures followed	YES	NO	(Circle One)

Name (print): Craig Moffitt **Signature:** [signature] **Date:** 5-6-04

Corrective Action Work Request Numbers
N/A

MALFUNCTION REPORT FORM/WORK REQUEST

Ash Grove Cement Company – Seattle, Washington

Affected Source No:	3/6 . MR 1	Revision No. 2
Affected Source Name:	Raw mill	Revision Date: 02/02/2004

Observer Information

Name	Date of Malfunction or Event	Time of Malfunction or Event		Type of Malfunction or Event (See Codes Below)	Baghouse Inlet 3 hr. Average Temperature Exceeded? (Check One)	
					Yes	No
Craig mifflin	Start: 8-21-03	Start: 3:15	AM PM	6.2		X
	Stop: 8-21-03	Stop: 6:20	AM PM			

CODE	TYPE OF MALFUNCTION		TYPE OF MALFUNCTION
6.1	System Wide Failure of Electrical Power	6.4	Unplanned Shutdown of Equipment
6.2	Mech., Elec., or Instrument Failure of System Component	6.5	Baghouse Failure
6.3	Blockage/Material Restriction	CMS	CMS Malfunction for BH Thermocouple (See SOP)

CODE	OTHER EVENTS	SPECIAL INSTRUCTIONS
SS	Startup or Shutdown Out of Sequence (Requires notification to PSCAA.)	Describe New Sequence and Reason for Not Following Existing SOP Sequence. List if Excess Emissions or Parameter Monitoring Exceedances are Believed to have Occurred. (Use Additional Page if Necessary.)
OT	Other Malfunction	(Requires notification to PSCAA.) Notify Supervisor

Corrective Action Taken: (See Codes Reverse Side)				
6.2				

Startup procedures followed	YES	NO	(Circle One)

Name (print): Craig mifflin **Signature:** [signature] **Date:** 5-6-04

Corrective Action Work Request Numbers
NA

MALFUNCTION REPORT FORM/WORK REQUEST

Ash Grove Cement Company – Seattle, Washington

Affected Source No:	416	Revision No. 2
Affected Source Name:	Kiln	Revision Date: 02/02/2004

Observer Information

Name	Date of Malfunction or Event	Time of Malfunction or Event		Type of Malfunction or Event (See Codes Below)	Baghouse Inlet 3 hr. Average Temperature Exceeded? (Check One)	
					Yes	NO
Craig Mifflin	Start: 10-16-03	Start: 23:13	AM PM	6.1		X
	Stop: 10-17-03	Stop: 1:10	AM PM			

CODE	TYPE OF MALFUNCTION		TYPE OF MALFUNCTION
6.1	System Wide Failure of Electrical Power	6.4	Unplanned Shutdown of Equipment
6.2	Mech., Elec., or Instrument Failure of System Component	6.5	Baghouse Failure
6.3	Blockage/Material Restriction	CMS	CMS Malfunction for BH Thermocouple (See SOP)

CODE	OTHER EVENTS	SPECIAL INSTRUCTIONS
SS	Startup or Shutdown Out of Sequence (Requires notification to PSCAA.)	Describe New Sequence and Reason for Not Following Existing SOP Sequence. List if Excess Emissions or Parameter Monitoring Exceedances are Believed to have Occurred. (Use Additional Page if Necessary.)
OT	Other Malfunction	(Requires notification to PSCAA.) Notify Supervisor

Corrective Action Taken: (See Codes Reverse Side)				
6.1				

Startup procedures followed	YES	NO	(Circle One)

Name (print): Craig Mifflin Signature: [signature] Date: 5-6-04

Corrective Action Work Request Numbers
N/A

MALFUNCTION REPORT FORM/WORK REQUEST

Ash Grove Cement Company – Seattle, Washington

Affected Source No:	4/6	Revision No. 2
Affected Source Name:	Kiln	Revision Date: 02/02/2004

Observer Information

Name	Date of Malfunction or Event	Time of Malfunction or Event		Type of Malfunction or Event (See Codes Below)	Baghouse Inlet 3 hr. Average Temperature Exceeded? (Check One)	
					Yes	No
Craig Miller	Start: 9-8-03	Start: 23:25	AM / PM	6.1		
	Stop: 9-7-03	Stop: 7:20	AM / PM			

CODE	TYPE OF MALFUNCTION		TYPE OF MALFUNCTION
6.1	System Wide Failure of Electrical Power	6.4	Unplanned Shutdown of Equipment
6.2	Mech., Elec., or Instrument Failure of System Component	6.5	Baghouse Failure
6.3	Blockage/Material Restriction	CMS	CMS Malfunction for BH Thermocouple (See SOP)

CODE	OTHER EVENTS	SPECIAL INSTRUCTIONS
SS	Startup or Shutdown Out of Sequence (Requires notification to PSCAA.)	Describe New Sequence and Reason for Not Following Existing SOP Sequence. List if Excess Emissions or Parameter Monitoring Exceedances are Believed to have Occurred. (Use Additional Page if Necessary.)
OT	Other Malfunction	(Requires notification to PSCAA.) Notify Supervisor

Corrective Action Taken: (See Codes Reverse Side)				
6.1				

Startup procedures followed	YES	NO	(Circle One)

Name (print): Craig Miller **Signature:** [signature] **Date:** 5-6-04

Corrective Action Work Request Numbers
NA

Clean Air Agency
110 Union Street, Suite 500
Seattle, WA 98101-2038
Ph: 206.343.8800 / 1.800.552.3565
Fax: 206.343.7522
www.pscleanair.org

Puget Sound Clean Air Agency

Compliance Status Report

Inspection Date: 10/5/04

Time: 11:15 Am

Case/Registration No.	Name		Responsible Person, Title
Reg. # 11339	Ash Grove Cement Co.		Gerald Brown EH&S
Site Address	**City**	**Zip**	**County**
3801 E Marginal Wy So.	Seattle	98134	King
Mailing Address	**City, State**	**Zip**	**Phone**
As above	Seattle, WA	98134	(206) 694-6221

- ☑ I observed no violations of our agency's regulations during my inspection in the areas I inspected.
- ☐ I could not make a compliance determination because:
  - ☐ I need to consult with others. I will share my conclusions with you either in person, over the phone, or in writing by_____.
  - ☐ I need more information. Please submit the following information by_____.

On-site inspection. Observed Valid Results equipment set-up for 10/6/04 and 10/7/04 dioxin Source test on main stack as well as set up for NSPS particulate test on Coal mill stacks scheduled for 10/6/04. Please submit a lab analysis report for the new raw feed (different iron & silica) as well as a lab analysis report for the old feed (prior to 9/30/04) with the Source test results due on or before 12/7/04. Please remember to submit a deviation report for the late Source test plan and EU 1.5 >.005 gr/dscF Coal mill opacity greater than zero observation.

Issued By: [signature]

Received By: [signature]

Date/Time: 10/5/04 11:25 am

ASH GROVE CEMENT COMPANY

"WESTERN REGION"

December 1, 2004

Mr. Fred Austin
Puget Sound Clean Air Agency
110 Union Street, Suite 500
Seattle, WA. 98101-2038

RE: Ash Grove Cement Company, Seattle, Washington
Performance Test

Dear Mr. Austin:

Please find enclosed the performance test report conducted on the main kiln stack on October 13th and 14th, 2004. Testing was conducted to demonstrate compliance with the dioxin furan standard as required by 40 CFR 63.1349(e)(1) (67 FR 16619) and 40 CFR 63.1349(e)(3) (67 FR 72585) for a planned operational change that involved the use of a different iron and silica source. The performance test re-establishes our baghouse inlet temperature for compliance with the dioxin/furan standard under PC MACT to 175 degrees C/347 degrees F for Raw Mill On operating conditions and 256 degrees C/492 degrees F for Raw Mill Off operating conditions.

As required by 40 CFR 63.9(h), we believe that this source test and submittal complies with relevant standards or other requirements.

Included separately with performance test report, are lab analysis reports of the raw feed that PSCAA requested in CSR dated 10/05/04.

Should you require additional information, please contact me.

Yours truly,

Gerald Brown
Manager Safety and Environmental
Ash Grove Cement

enclosure

3801 EAST MARGINAL WAY SOUTH • SEATTLE, WA 98134 • PLANT OFFICE (206) 623-5596 • FAX (206) 623-5355

Seattle Plant Kiln Feed Statistics

For The Month of eptember, 2004

Date	Sample Number	SIO2	AL2O3	FE2O3	CaO	MGO	SO3	LOSS	NA2O	K2O	TOTAL	INSOL	EQ ALK	F CaO	STD FCAO	C3S	STD C3S	C2S	C3A	C4AF	SILICA RATIO	RED
09/01/04	1056-04	14.43	2.69	2.13	41.95	1.47	0.28	34.57	0.28	0.14	97.94		0.57			59.83	4.99	18.16	5.39	9.90	2.99	
09/02/04	1064-04	14.43	2.62	2.07	42.40	1.51	0.29	34.97	0.26	0.13	98.68		0.53			63.83	2.45	15.53	5.29	9.68	3.08	
09/04/04	1069-04	14.63	2.73	2.13	42.25	1.39	0.28	34.72	0.27	0.12	98.52		0.53			59.10	3.40	19.74	5.56	9.92	3.01	
09/05/04	1073-04	14.64	2.75	2.13	42.61	1.00	0.26	34.58	0.27	0.12	98.36		0.53			60.98	3.91	18.22	5.63	9.90	3.00	
09/06/04	1078-04	14.55	2.57	2.07	42.99	0.75	0.24	34.61	0.24	0.12	98.14		0.49			66.49	5.38	13.70	5.06	9.62	3.14	
09/07/04	1083-04	14.48	2.65	2.10	42.97	0.74	0.24	34.59	0.26	0.12	98.15		0.52			66.27	4.43	13.54	5.30	9.76	3.05	
09/08/04	1087-04	14.41	2.58	2.03	43.09	0.73	0.24	34.66	0.26	0.12	98.12		0.52			68.77	5.05	11.41	5.21	9.44	3.13	
09/09/04	1091-04	14.36	2.63	2.04	43.14	0.72	0.23	34.69	0.26	0.12	98.19		0.52			69.20	5.23	10.90	5.39	9.50	3.07	
09/11/04	1095-04	14.62	2.63	2.06	42.70	0.74	0.23	34.37	0.26	0.11	97.72		0.51			63.08	5.11	16.34	5.31	9.54	3.12	
09/26/04	1127-04	14.11	2.63	2.05	42.81	0.82	0.23	34.54	0.26	0.12	97.57		0.52			69.87	4.47	9.15	5.35	9.52	3.01	
09/27/04	1131-04	14.47	2.69	2.08	43.08	0.77	0.21	34.70	0.28	0.12	98.40		0.55			66.94	2.94	13.10	5.53	9.68	3.03	
09/28/04	1136-04	14.32	2.62	2.11	43.13	0.68	0.20	34.64	0.30	0.12	98.12		0.58			69.63	4.61	10.35	5.16	9.81	3.03	
09/29/04	1140-04	14.40	2.56	2.02	43.11	0.69	0.21	34.64	0.27	0.11	98.01		0.52			69.35	5.80	10.91	5.15	9.40	3.14	
09/30/04	1144-04	14.49	2.62	2.04	43.28	0.69	0.22	34.77	0.27	0.11	98.49		0.52			68.80	4.30	11.85	5.35	9.51	3.11	
Average		14.45	2.64	2.08	42.82	0.91	0.24	34.65	0.27	0.12	98.17		0.53			65.87	4.43	13.78	5.33	9.66	3.07	
St Dev		0.14	0.06	0.04	0.39	0.31	0.03	0.13	0.01	0.01	0.31		0.02			3.83	0.96	3.32	0.16	0.18	0.05	
Coef Var		0.97%	2.14%	1.86%	0.92%	34.06%	11.67%	0.39%	5.18%	6.54%	0.31%		4.49%			5.81%	21.76%	24.12%	3.04%	1.85%	1.75%	

AGCS2M000764

Seattle Plant Kiln Feed Statistics

For The Month of November, 2004

Date	Sample Number	SIO2	AL2O3	FE2O3	CaO	MGO	SO3	LOSS	NA2O	K2O	TOTAL	INSOL	EQ ALK	F CaO	STD FCAO	C3S	STD C3S	C2S	C3A	C4AF	SILICA RATIO	RED
11/01/04	1308-04	14.82	2.84	1.93	43.23	0.46	0.20	34.48	0.09	0.08	98.13		0.22			62.42	3.94	17.82	6.50	8.95	3.11	
11/02/04	1321-04	14.42	2.69	1.90	43.63	0.51	0.21	34.85	0.04	0.07	98.32		0.13			71.51	4.57	9.57	6.01	8.87	3.14	
11/03/04	1325-04	14.44	2.87	1.95	43.24	0.52	0.21	34.56	0.00	0.08	97.87		0.08			66.58	2.11	13.10	6.58	9.06	3.00	
11/04/04	1329-04	14.39	3.09	1.96	43.36	0.81	0.20	34.97	0.20	0.09	99.07		0.40			66.08	1.90	13.66	7.49	9.16	2.85	
11/06/04	1343-04	14.24	3.18	1.93	43.16	0.87	0.20	34.87	0.17	0.10	98.72		0.36			65.62	2.80	13.25	7.92	9.01	2.79	
11/07/04	1348-04	14.19	3.23	1.89	43.53	0.86	0.19	35.15	0.16	0.10	99.30		0.35			68.42	2.48	11.18	8.27	8.86	2.77	
11/08/04	1356-04	14.30	3.29	1.92	43.20	0.79	0.19	34.82	0.14	0.10	98.75		0.32			64.05	5.08	14.65	8.39	8.95	2.74	
11/09/04	1361-04	14.46	3.29	2.00	43.49	0.67	0.20	34.91	0.12	0.10	99.24		0.29			63.86	7.72	15.58	8.19	9.34	2.73	
11/10/04	1365-04	14.13	3.18	1.94	43.43	0.59	0.21	34.78	0.12	0.10	98.48		0.28			68.43	2.74	10.56	7.89	9.04	2.76	
11/11/04	1370-04	14.21	3.17	1.89	43.37	0.55	0.24	34.69	0.10	0.09	98.31		0.24			67.11	3.52	11.82	7.97	8.80	2.81	
11/13/04	1379-04	14.34	3.19	1.90	43.45	0.69	0.24	34.90	0.09	0.07	98.87		0.21			66.08	1.99	13.37	8.05	8.87	2.82	
11/14/04	1384-04	14.61	2.91	1.88	43.44	0.56	0.25	34.75	0.09	0.07	98.56		0.21			65.61	1.78	14.77	6.94	8.76	3.05	
11/15/04	1397-04	14.53	2.89	1.87	43.32	0.51	0.23	34.60	0.09	0.07	98.11		0.21			65.95	2.45	14.01	6.87	8.69	3.05	
11/16/04	1402-04	14.63	2.89	1.88	43.46	0.53	0.23	34.74	0.07	0.06	98.49		0.17			65.78	1.93	14.71	6.86	8.76	3.07	
11/17/04	1409-04	14.54	2.88	1.83	43.44	0.68	0.19	34.89	0.00	0.07	98.52		0.07			67.25	1.96	13.36	6.97	8.54	3.09	
11/18/04	1418-04	14.56	2.97	1.83	43.53	0.71	0.20	34.98	0.00	0.07	98.85		0.07			66.70	2.19	13.95	7.34	8.56	3.03	
11/20/04	1423-04	14.35	3.02	1.87	43.13	0.69	0.19	34.65	0.00	0.08	97.98		0.08			65.75	3.13	13.42	7.40	8.70	2.93	
11/21/04	1428-04	14.24	3.05	1.89	43.13	0.61	0.21	34.56	0.00	0.09	97.78		0.09			66.50	3.81	12.28	7.46	8.78	2.88	
11/22/04	1431-04	14.23	3.09	1.87	43.33	0.62	0.22	34.74	0.00	0.09	98.19		0.09			67.64	4.70	11.56	7.70	8.71	2.87	
11/23/04	1445-04	14.24	3.14	1.87	43.22	0.63	0.22	34.65	0.06	0.10	98.13		0.19			66.23	2.88	12.58	7.89	8.70	2.84	
11/24/04	1449-04	14.24	3.08	1.85	43.34	0.77	0.20	34.90	0.11	0.10	98.59		0.27			67.98	5.31	11.49	7.73	8.64	2.89	
11/25/04	1454-04	14.10	3.18	1.86	43.00	0.84	0.20	34.71	0.11	0.11	98.11		0.28			66.24	2.72	12.01	8.09	8.66	2.80	
11/27/04	1458-04	14.14	3.11	1.90	43.09	0.76	0.20	34.70	0.11	0.11	98.12		0.28			66.96	5.03	11.63	7.70	8.85	2.82	
11/28/04	1464-04	14.35	2.90	1.86	43.32	0.83	0.22	34.96	0.12	0.11	98.67		0.30			68.38	4.45	11.73	6.98	8.69	3.01	
11/29/04	1474-04	14.74	2.81	1.79	43.04	0.81	0.23	34.71	0.11	0.09	98.33		0.26			62.87	5.55	17.36	6.77	8.33	3.20	
11/30/04	1479-04	14.65	3.05	1.76	43.19	0.76	0.23	34.77	0.04	0.06	98.51		0.12			62.51	5.57	17.30	7.82	8.20	3.05	
Average		14.39	3.04	1.89	43.31	0.68	0.21	34.78	0.08	0.09	98.46		0.21			66.25	3.55	13.33	7.45	8.79	2.93	
St Dev		0.20	0.16	0.05	0.16	0.12	0.02	0.15	0.06	0.02	0.40		0.10			2.01	1.53	2.08	0.62	0.24	0.14	
Coef Var		1.37%	5.26%	2.73%	0.38%	18.40%	8.23%	0.45%	70.28%	18.05%	0.41%		45.88%			3.04%	43.18%	15.59%	8.36%	2.74%	4.76%	

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