



NOTICE AND AGENDA OF THE YAKIMA REGIONAL CLEAN AIR AGENCY BOARD OF DIRECTORS' REGULAR MEETING

NOTICE

NOTICE is hereby given that the Yakima Regional Clean Air Agency Board of Directors' Regular Meeting will be held at the Yakima City Hall, City Council Chambers on Thursday, March 10, 2016 at 2:00pm to consider the following Agenda.

AGENDA

REGULAR MEETING @ 2:00 p.m.

1. 2:00 P.M. Call to Order
2. Roll Call
3. Additions or Deletions to Agenda

***Board Chair
Quatandra Jarvis
Board Chair***

PUBLIC COMMENTS

This is a public meeting. If you wish to address the Board concerning any matter that is not on the agenda, you may do so now. Please come forward to the podium, stating your name for the record. The Chair has the right to place a time limit on each person asking to be heard.

4. Open Public Comments Period

Board Chair

CONSENT AGENDA

5. Consider Approving the Consent Agenda, Items for action 5.1 through 5.3. The Board may approve the Consent Agenda by single motion in whole or in part, with or without further discussion.
 - 5.1 By consent, approve January 14, 2016 Board Meeting Summary;
 - 5.2 By consent accept and file, YRCAA January, 2016 Monthly Activity Report; and
 - 5.3 By consent accept and file, YRCAA February, 2016 Monthly Activity Report.

Action Requested: Approve Consent Agenda Items 5.1 through 5.3.



REGULAR AGENDA

6. Receive YRCAA Director's Report.

Gary Pruitt

Action Requested: Accept and file Director's Report - No Action Required.

ACTION ITEMS

7. Accept Fiscal Reports.

Christa Owen

- Approve Fiscal Vouchers and Payroll Authorization Transfers;
- BVA(s) – FYI;
- Supplemental Income Status Report for CY 2015; and

Action Requested: Approve Fiscal Vouchers, Payroll Authorization Transfers, Accept and File Fiscal Reports.

8. 2016 Board Officers

Quatandra Jarvis

Action Requested: Nominate and Select Board Chair and Vice-Chair

9. Uncollectable Debt

Keith Hurley

Action Requested: Approve by Resolution No. 2016-01: Dismiss uncollectable Debts.

DIVISION REPORTS

10. Engineering and Planning Division

Hasan Tahat

Accept Engineering and Planning Division Report

Action Requested: Accept and file Report – No action required

11. Compliance and Enforcement Division

Keith Hurley

Accept Compliance and Air Monitoring Division Report

Action Requested: Accept and file Report - No Action Required

12. Executive Division Report

Mark Edler

Accept Executive Division Report

Action Requested: Accept and file Report – No action required

OTHER BUSINESS

13. Other Business and Adjournment

Board Chair

The Next Board of Directors Meeting is scheduled for Thursday, April 14, 2016 at the City of Yakima Council Chambers, 129 N Second Street, Yakima.



Summary of the Governing Board of Directors Meeting

Location, Date and Time:

Yakima City Hall Council Chambers, January 14, 2016 Time: 2:00 p.m.

1. **Rand Elliot, Acting Board Chair**, called the Meeting to order at 2:00 p.m.
2. **Quatandra Jarvis, Clerk of the Board**, conducted roll call. *There was a quorum.*

PRESENT WERE:	
BOARD MEMBERS: Rand Elliot, Yakima County Commissioner Ranie Haas, Representative-At-Large Alternate Steven Jones, Ph.D., Yakima County Representative	STAFF: Gary Pruitt, Executive Director Quatandra Jarvis, Clerk of the Board Hasan Tahat, Engineering/Planning Division Mark Edler, Executive Division Christa Owen, Fiscal Program Manager
LEGAL COUNSEL: Gary Cuillier, Board Counsel	MEDIA: Mike Brown, YPAC

3. **Additions and Deletions to Agenda** –There were none.

4. **Public Comment**

Jean Mendoza discussed an article published in the Toppenish Review Independent regarding dairy emissions. Ms. Mendoza did not agree with the article and requested that the Yakima Regional Clean Air Agency ask the paper to write a clarifying article.

Kathleen Rogers seconded what Jean said and advised that she wrote a response to the article in the Sunnyside Daily Sun News.

Jim Dyjak had some comments regarding Agenda Item 9. He advised that the monitor in Sunnyside was down for a couple of weeks wanted to know why. Additionally, Mr. Dyjak inquired as to who does the QA tests for the Air Monitoring Data Quality Assessment Reports and would like tables 13 and 14 on page 13 and table 15 on page 14 explained.

Rand Elliot asked Gary Pruitt to respond to Mr. Dyjak's questions. Mr. Pruitt responded that Ecology does most of the QAs on a routine basis and the Agency does QA checks every time the Agency visits the site. Mr. Elliot asked Gary to look into it and email Mr. Dyjak and himself with a response.

Mr. Elliot responded to a number of questions that were directed to him at the last Board Meeting:

1. Closing restaurants during Burn Bans- Mr. Elliot would not support this as restaurants are subject to Opacity Standard and have not had a violation in years;
2. Comment period being moved to the end of the meeting-This issue has already been discussed and it was decided that the public comment period would stay at the beginning of the meeting;
3. Manure spreading during burn bans-it's a lawful process regulated through the Department of Agriculture;
4. Air Quality Excellence Award-It's been controversial over the years and it's not a priority; and
5. Strategic Plan- the Agency has a fairly specific job and a strategic plan is not necessary.

These are all Mr. Elliot's personal opinions they are not Board decisions.

5. **Consent Agenda**

- 5.1 By consent, accepted December 10, 2015, 2015 Board Meeting Summary; and
- 5.2 By consent, accepted December 10, 2015 Board Meeting Summary;

AGENDA ITEM NO. 5.1

Moved by Steven Jones, Ph.D. and seconded by Ranie Haas. Motion passed.

REGULAR AGENDA

6. Director's Report

Mr. Pruitt advised that the enclosed annual Message from the Director explains that with the uncertainty of Federal and State funding, the Agency will need to focus its efforts on the greatest air quality benefits for the most people.

The federal budget is now available, it sets up the 103 funding for monitoring efforts and the 105 funding for the Agency's Base Grant. The rescission may be slightly less than last year. The Agency will be lobbying in the upcoming discussion with other clean air agencies across the state for additional funding to enforce the additional rules imposed on the Agency by the federal government.

Proposed Clean Air Rule, WAC 173442, is going to establish standards for Green House gas emissions from certain stationary sources. The Agency will more than likely not be affected by this rule.

Mr. Pruitt thanked the Board Members and staff for accommodating his absence during his recovery.

Steven Jones, Ph.D. asked a clarifying question regarding WA changing the way they distributed their funds based on population. Answer was yes, it's based on population and total land area of jurisdiction.

ACTION ITEMS

7. Fiscal Programs

AP for the month of December was \$12,406.06, out of that enterprise expenses were \$321.92 and Wood Stove Change-Out expenses were \$2,737.00. December Payroll was \$61,885.94

Moved by Steven Jones, Ph.D. and seconded by Ranie Haas. Motion passed.

DIVISION/PROGRAM REPORTS (See written reports for complete details.)

8. Engineering and Planning Division Report

Hasan Tahat, Ph.D. advised that approximately 75% of registration was sent via email. An emissions inventory was submitted to the Department of Ecology and there were two burn bans lasting 16 days during the month of December. Dr. Tahat does expect an exceedance around the 5th of December.

Dr. Tahat responded to Mr. Dyjak's questions regarding why the Sunnyside's monitor was down.

9. Compliance and Enforcement Division Report

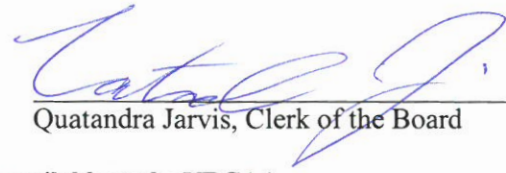
Keith Hurley was absent.

10. Executive Division Report

Mark Edler advised that the Executive Division concluded eight low income, five rebates and four bounties for the Wood Stove Change-Out program and there are 17 scheduled for January. Additionally, the Executive Division did an air quality presentation for a 7th Grade class at Franklin Middle School.

11. Other Business and Adjournment

Rand Elliot, Acting Board Chairman



Quatandra Jarvis, Clerk of the Board

Audio CD of this meeting is available at the YRCAA.
Meeting Summary submitted to Board for approval.

Date of Release: February 4, 2016
Date of Consideration: February 11, 2016
To: Board of Directors
From: Office of the Executive Director
Subject: Monthly Activity Report

Activity	FY15	Nov.15	Dec. 15	Jan. 16	FY15 thru Jan.	FY16 thru Jan.
Minor Source Inspections	220	10	0	5	138	48
Complaints Received	228	14	11	28	149	108
NOVs Issued	92	0	7	30	54	51
Warning Notices Issued	43	1	1	1	35	5
NOPs Issued	67	3	0	2	46	25
SEPA Reviews	274	27	17	10	153	183
AOP Applications Received	2	0	0	0	0	0
AOPs Issued or Renewed	3	0	0	0	1	1
Deviations/Upsets Reported	12	1	1	1	7	7
AOP Inspections	5	0	1	0	5	6
Public Workshops	4	0	0	0	4	0
Media Events	0	0	0	0	0	0
Media Contacts	19	5	4	1	17	17
Education Outreach Events	9	0	1	0	3	2
Sources Registered	333	0	18	83	116	118
NSR Applications Received	33	0	0	0	15	4
NSR Approvals Issued-Temporary	2	0	0	0	0	1
NSR Approvals Issued-Permanent	23	3	1	2	13	11
NODRs Received	233	8	11	11	127	101
Agricultural Burn Permits Issued	220	15	0	23	92	67
Conditional Use Permits Issued	8	0	0	0	4	1
Residential Burn Permits Issued	1349	26	0	0	315	189
Burn Ban Days	39	11	16	25	39	90
Public Records Requests Fulfilled	34	1	1	2	11	13

AOP - Air Operating Permit; **NODR** - Notification of Demolition and Renovation; **NOP** - Notice of Penalty; **NOV** - Notice of Violation; **NSR** - New Source Review; **SEPA** - State Environmental Policy Act

AGENDA ITEM NO 5.2

Date of Release: March 3, 2016
Date of Consideration: March 10, 2016
To: Board of Directors
From: Office of the Executive Director
Subject: Monthly Activity Report

Activity	FY15	Dec.15	Jan. 16	Feb. 16	FY15 thru Feb.	FY16 thru Feb.
Minor Source Inspections	220	0	5	12	160	50
Complaints Received	228	11	29	20	162	115
NOVs Issued	92	7	28	5	56	54
Warning Notices Issued	43	1	1	2	35	6
NOPs Issued	67	0	2	14	52	36
SEPA Reviews	274	17	10	19	166	175
AOP Applications Received	2	0	0	0	1	0
AOPs Issued or Renewed	3	0	0	0	2	1
Deviations/Upsets Reported	12	1	1	1	8	7
AOP Inspections	5	1	0	0	3	6
Public Workshops	4	0	0	0	4	0
Media Events	0	0	0	0	0	0
Media Contacts	19	4	1	2	17	14
Education Outreach Events	9	1		0	3	2
Sources Registered	333	18	83	184	299	302
NSR Applications Received	33	0	0	2	19	6
NSR Approvals Issued-Temporary	2	0	0	0	0	1
NSR Approvals Issued-Permanent	23	1	2	0	16	8
NODRs Received	233	11	11	17	149	110
Agricultural Burn Permits Issued	220	0	23	58	139	110
Conditional Use Permits Issued	8	0	0	0	4	1
Residential Burn Permits Issued	1349	0	0	0	315	163
Burn Ban Days	39	16	25	0	39	79
Public Records Requests Fulfilled	34	1	2	0	12	12

AOP - Air Operating Permit; **NODR** - Notification of Demolition and Renovation; **NOP** - Notice of Penalty; **NOV** - Notice of Violation; **NSR** - New Source Review; **SEPA** - State Environmental Policy Act



Director's Report

Date of Release: January 7, 2016
Date of Consideration: January 14, 2016
To: Board of Directors
From: Office of the Executive Director
Subject: Director's Report

1. FY2017 Budget

Initial work on the FY2017 budget has begun. Following is the schedule for adoption:

April 14th Board Meeting

Study Session - Presentation and discussion of issues.

Regular Session - Board Chair announces the Public Comment Period begins May 2nd - closes May 31st.

April 22nd Print Draft

The Draft Budget should be finalized to be available by May 1st for: public view in hard copy; Board mailing; and public view on the website.

April 27th Advertise Public Comment Period

Send Notice to the Yakima Herald Republic and Daily Sun News to appear April 30th and May 2nd, announcing the public comment period begins May 2nd and closes May 31st.

May 12th Board Meeting

Study Session - Present Draft Budget for discussion.

May 31st Print Proposed Final

The Proposed Final Budget should be printed in time for Board mailing on June 2nd.

June 1st Advertise Budget Hearing

Public Notice Budget Hearing to be held on June 9th at an approximate time to run June 4th and 6th in the Yakima Herald Republic and Daily Sun News and post on website.

June 9th Board Meeting

Study Session - Discuss any issues Board may have with Proposed Final Budget

Regular Session - Present Proposed Final Budget, Errata and Resolutions for adoption. Board Chair opens Budget Hearing during Board Meeting, proceeds with Board discussion, motions and votes, and closes Budget Hearing.

2. Federal Funding

February 9th President Barack Obama announced the Administration's proposed federal budget for FY 2017, which includes \$268.2 million for state and local air agency grants under Sections 103 and 105.

This is \$40 million more than the FY 2016 appropriation and the same amount contained in last year's request.

AGENDA ITEM NO. 6



Executive Memorandum

Date of Release: March 3, 2016

Date of Consideration: March 10, 2016

To: YRCAA Board of Directors

From: Office of the Director

Christa Owen

Subject: Fiscal Program Report

Issue: Consider Fiscal Reports, forms, and vouchers.

Recommendation(s): Accept, and approve by minute action, January (\$58,692.54) and February (\$12,680.32) 2016 AP Fiscal Vouchers, and January and February Payroll Authorizations (\$61,864.17 and \$62,174.40, respectively). Out of A/P, \$49,772.79 was for Wood Stove Change-out Expenses, and \$1,067.50 was for Enterprise expenses.

Discussion: January and February Accounts Payable and Payroll Authorizations are enclosed for your approval. BVA and Supplemental Income are included as informational items.

Enclosures

AGENDA ITEM NO. 7

AUTHORIZATION FOR ELECTRONIC FUNDS TRANSFER

Direct Deposit Payroll & Payroll Taxes

Date: 1/28/2016

District: Yakima Regional Clean Air Agency

Contact Person: Christa Owen

Address: 329 North First Street, Yakima, WA 98901

Telephone No. 834-2050 ext 104 Telefax No. 834-2060

Authorization is given for the Yakima County Treasurer to electronically transfer the amounts listed below:

Name of Bank: Key Bank of Washington

ABA Routing Number: XXXXXXXXXX

Bank Account Number: XXXXXXXXXX

Payroll Date: February 1, 2016

Transfer Amount(s): \$ 61,864.17

Total Amount of Electronic Transfer: \$ 61,864.17

Authorizing Signatures (*No facsimile signatures accepted.*):



Auditing Officer

Chairman Board of Directors



Alternate Auditing Officer

Date January 28, 2016

Note: The Yakima County Treasurer's Office must receive the completed authorization by 12:00 noon, two (2) business days prior to payroll date. An original must be provided to the County Treasurer's Office if a telefax is sent. *Do not consider a telefax delivered until you have verified with the Treasurer's Office that it has been received.*

Contact Persons at County Treasurer's Office: **Cindy**

Telephone Number: 509-574-2780
(01-2008)

Telefax Number: 509-574-2801



January 27, 2016

Fund 614-614 YRCAA

Fund 614-141 Enterprise

<u>Name</u>	<u>Warrant/MICR #</u>	<u>GL #</u>	<u>Amount</u>	<u>Date</u>
Armstrong's Stove & Spa*	32661	4101	\$7,994.32	1/28/2016
Bradley A. Mellotte	32662	4501	\$3,480.00	1/28/2016
Diana Briggs*	32663	4101	\$ 400.00	1/28/2016
Canon Solutions America, Inc.	32664	4801	\$ 284.67	1/28/2016
Coastal Farm and Ranch*	32665	4101	\$6,456.97	1/28/2016
Crystal Springs	32666	3101	\$ 16.72	1/28/2016
Gary Elledge*	32667	4101	\$ 400.00	1/28/2016
Fosseen's Home & Hearth*	32668	4101	\$3,130.94	1/28/2016
Inland Awning of Yakima*	32669	4101	\$6,230.66	1/28/2016
Inland Contracting*	32670	4101	\$1,119.23	1/28/2016
KeyBank	32671	Various	\$ 443.81	1/28/2016
Northwest Community Action Center*	32672	4101	\$ 40.00	1/28/2016
OIC of Washington*	32673	4101	\$ 420.00	1/28/2016
Pitney Bowes Reserve Account	32674	4202	\$ 500.00	1/28/2016
Platte Heating & Air Conditioning, Inc.*	32675	4101	\$4,500.00	1/28/2016
Vivian Purdom*	32676	4101	\$ 750.00	1/28/2016
Ron's Office Equipment	32677	3101	\$ 157.52	1/28/2016
Robert D. Ross*	32678	4101	\$ 250.00	1/28/2016
Sinclair Broadcasting Group*	32679	4401	\$ 500.00	1/28/2016
Robert Thomas*	32680	4101	\$ 400.00	1/28/2016
Juan Manuel Villalobos*	32681	4101	\$1,000.00	1/28/2016
Virginia Warburton*	32682	4101	\$ 500.00	1/28/2016

Total: **\$ 38,974.84**

***Reimbursement from Grant**

****NOC/Enterprise**

This is to certify that the invoices and warrants above for the Yakima Regional Clean Air Agency have been examined, audited and approved by the Alternate Auditing Officer for payment.

Total Amount: **\$ 38,974.84**

Rand Elliott, Acting Board Chairman

3/10/2016

Gary W. Pruitt, Executive Director

1/28/2016



January 11, 2016

Fund 614-614 YRCAA

Fund 614-141 Enterprise

<u>Name</u>	<u>Warrant/MICR #</u>	<u>GL #</u>	<u>Amount</u>	<u>Date</u>
Absolute Comfort Technology, LLC*	32639	4101	\$ 666.67	1/12/2016
Andreotti & Associates, Inc.	32640	4101	\$ 280.00	1/12/2016
Armstrong's Stove & Spa*	32641	4101	\$7,379.17	1/12/2016
BIAS Software	32642	3502	\$2,904.32	1/12/2016
Charter Communications	32643	4201	\$ 717.28	1/12/2016
Coleman Oil Company	32644	3201	\$ 120.64	1/12/2016
Cuillier Law Office	32645	4101	\$ 126.00	1/12/2016
Five K Technologies	32646	3502	\$ 25.00	1/12/2016
Gailon Gentry*	32647	4101	\$ 250.00	1/12/2016
Gregory Gentry*	32648	4101	\$ 350.00	1/12/2016
Dianna Grunlose*	32649	4101	\$1,000.00	1/12/2016
Inland Contracting*	32650	4101	\$3,306.30	1/12/2016
KIMA-TV*	32651	4401	\$ 70.00	1/12/2016
Leaf	32652	4501	\$ 186.07	1/12/2016
Frank Majnarich*	32653	4101	\$ 250.00	1/12/2016
Bonnie Pothier*	32654	4101	\$ 750.00	1/12/2016
Thurston County Fair Complex**	32655	4501	\$ 100.00	1/12/2016
Melissa Van Corbach*	32656	4101	\$ 400.00	1/12/2016
Verizon Wireless	32657	4201	\$ 326.08	1/12/2016
WFOA	32658	4901	\$ 50.00	1/12/2016
YRCAA	32659	4901	\$ 225.17	1/12/2016
Yakima Area Arboretum**	32660	4501	\$ 235.00	1/12/2016

Total:

\$ 19,717.70

***Reimbursement from Grant**

****NOC/Enterprise**

This is to certify that the invoices and warrants above for the Yakima Regional Clean Air Agency have been examined, audited and approved by the Alternate Auditing Officer for payment.

Total Amount: **\$ 19,717.70**

Rand Elliott, Acting Board Chairman

3/10/2016

Gary W. Pruitt, Executive Director

1/12/2016



February 11, 2016

Fund 614-614 YRCAA

Fund 614-141 Enterprise

<u>Name</u>	<u>Warrant/MICR #</u>	<u>GL #</u>	<u>Amount</u>	<u>Date</u>
Absolute Comfort Technology, LLC*	32683	4101	\$1,095.53	2/12/2016
Andreotti & Associates, Inc.	32684	4101	\$ 80.00	2/12/2016
Canon Solutions America, Inc.	32685	4801	\$ 316.09	2/12/2016
Charter Communications	32686	4201	\$ 717.28	2/12/2016
Coleman Oil Company	32687	3201	\$ 77.56	2/12/2016
Cuillier Law Office	32688	4101	\$ 616.00	2/12/2016
Five K Technologies	32689	3502	\$ 25.00	2/12/2016
KCYU*	32690	4401	\$ 663.00	2/12/2016
Leaf	32691	4501	\$ 186.07	2/12/2016
Northwest Community Action Center	32692	4101	\$ 120.00	2/12/2016
Ron's Office Equipment	32693	3101	\$ 116.00	2/12/2016
Verizon Wireless	32694	4201	\$ 325.52	2/12/2016
Western States Project	32695	4901	\$ 300.00	2/12/2016
YRCAA	32696	4901	\$ 262.54	2/12/2016
Yakima County Printing Department	32697	3101	\$ 117.94	2/12/2016
Yakima County Sheriff's Department	32698	4101	\$ 275.95	2/12/2016

Total: **\$ 5,294.48**

***Reimbursement from Grant**

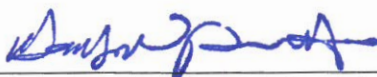
****NOC/Enterprise**

This is to certify that the invoices and warrants above for the Yakima Regional Clean Air Agency have been examined, audited and approved by the Alternate Auditing Officer for payment.

Total Amount: **\$ 5,294.48**

Rand Elliott, Acting Board Chairman

3/10/2016



Gary W. Pruitt, Executive Director

2/12/2016



February 25, 2016

Fund 614-614 YRCAA

Fund 614-141 Enterprise

<u>Name</u>	<u>Warrant/MICR #</u>	<u>GL #</u>	<u>Amount</u>	<u>Date</u>
Bradley A. Mellotte	32699	4501	\$3,480.00	2/26/2016
Crystal Springs	32700	3101	\$ 16.69	2/26/2016
Dept of Ecology Cashiering Unit	32701	4902	\$2,488.13	2/26/2016
Skagit County Parks**	32702	4501	\$ 732.50	2/26/2016
Yakima County Sheriff's Department	32703	4101	\$ 126.38	2/26/2016
KeyBank	32704	Various	\$ 542.14	2/26/2016

Total:

\$ 7,385.84

***Reimbursement from Grant**

****NOC/Enterprise**

This is to certify that the invoices and warrants above for the Yakima Regional Clean Air Agency have been examined, audited and approved by the Alternate Auditing Officer for payment.

Total Amount: **\$ 7,385.84**

Rand Elliott, Acting Board Chairman

3/10/2016

Gary W. Pruitt, Executive Director

2/26/2016

AUTHORIZATION FOR ELECTRONIC FUNDS TRANSFER

Direct Deposit Payroll & Payroll Taxes

Date: 2/26/2016

District: Yakima Regional Clean Air Agency

Contact Person: Christa Owen

Address: 329 North First Street, Yakima, WA 98901

Telephone No. 834-2050 ext 104 **Telefax No.** 834-2060

Authorization is given for the Yakima County Treasurer to electronically transfer the amounts listed below:

Name of Bank: Key Bank of Washington

ABA Routing Number: XXXXXXXXXX

Bank Account Number: XXXXXXXXXX

Payroll Date: March 1, 2016

Transfer Amount(s): \$ 62,174.40

Total Amount of Electronic Transfer: \$ 62,174.40

Authorizing Signatures (No facsimile signatures accepted.):



Auditing Officer

Chairman Board of Directors



Alternate Auditing Officer

Date February 26, 2016

Note: The Yakima County Treasurer's Office must receive the completed authorization by 12:00 noon, two (2) business days prior to payroll date. An original must be provided to the County Treasurer's Office if a telefax is sent. *Do not consider a telefax delivered until you have verified with the Treasurer's Office that it has been received.*

Contact Persons at County Treasurer's Office: **Cindy**

Telephone Number: 509-574-2780
(01-2008)

Telefax Number: 509-574-2801

YAKIMA REGIONAL CLEAN AIR AGENCY
SUPPLEMENTAL INCOME STATUS for 2016 on February 28, 2016
CY 2016 \$.40 PER CAPITA (Rounded Amounts)

City/Town	Past Due	Assessment Amount	Total Amt Due	Date Received	Amount Received	Balance Due	Responses
Grandview	\$ -	\$ 4,468	\$ 4,468	2/1/2016	\$ 4,468	\$ -	Paid in full
Granger	\$ -	\$ 1,398	\$ 1,398	2/1/2016	\$ 350	\$ 1,049	1/4 paid
Harrah	\$ -	\$ 258	\$ 258	2/1/2016	9/14/1900	\$ -	Paid in full
Mabton	\$ -	\$ 924	\$ 924	1/19/2016	\$ 924	\$ -	Paid in full
Moxee	\$ -	\$ 1,488	\$ 1,488	1/19/2016	\$ 1,488	\$ -	Paid in full
Naches	\$ -	\$ 326	\$ 326	1/14/2016	\$ 326	\$ -	Paid in full
Selah	\$ -	\$ 2,958	\$ 2,958	1/20/2016	\$ 2,958	\$ -	Paid in full
Sunnyside	\$ -	\$ 6,492	\$ 6,492	1/25/2016	\$ 1,623	\$ 4,869	1/4 paid
Tieton	\$ -	\$ 502	\$ 502	2/1/2016	\$ 502	\$ -	Paid in full
Toppenish	\$ -	\$ 3,582	\$ 3,582	2/1/2016	\$ 3,582	\$ -	Paid in full
Union Gap	\$ -	\$ 2,456	\$ 2,456	2/1/2016	\$ 2,456	\$ -	Paid in full
Wapato	\$ -	\$ 2,016	\$ 2,016	1/11/2016	\$ 2,016	\$ -	Paid in full
City of Yakima	\$ -	\$ 37,232	\$ 37,232	1/20/2016	\$ 9,308	\$ 27,924	1/4 paid
Zillah	\$ -	\$ 1,256	\$ 1,256	1/22/2016	\$ 1,256	\$ -	Paid in full
Yakima Co.	\$ -	\$ 34,164	\$ 34,164	1/1/2016	\$ 8,541	\$ 25,623	1/4 paid
Totals:	\$ -	\$ 99,520	\$ 99,520		\$ 40,056	\$ 59,465	

FY 2016 Monthly Tracking

January 2016 Report Date: February 11, 2016		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
REVEUNE					
REVENUE 614 YRCAA Base Operations					
Stationary Source Permit Fees					
614-32190001	Minor Sources	\$ 155,443	\$ 33,975	\$ 42,582	27.4%
614-32190008	Synthetic Minor Sources	\$ 24,257	\$ 5,320	\$ 7,980	32.9%
614-32190006	Complex Sources	\$ 22,437	\$ 1,285	\$ 2,570	11.5%
614-32290001	Title V Sources	\$ 122,021	\$ -	\$ 122,891	100.7%
614-32190002	New Source Review	\$ 35,837	\$ 796	\$ 7,970	22.2%
<i>Subtotal, Stationary Source Permit Fees</i>		<i>\$ 359,995</i>	<i>\$ 41,376</i>	<i>\$ 183,993</i>	<i>51.1%</i>
Burn Permit Fees					
614-32290005	Residential Burn Permits	\$ 63,450	\$ -	\$ 9,120	14.4%
614-32290007	Agricultural Burn Permits	\$ 31,428	\$ 4,324	\$ 16,780	53.4%
614-32290011	Conditional Use Burn Permits	\$ 2,329	\$ -	\$ 218	9.4%
<i>Subtotal, Burn Permit Fees</i>		<i>\$ 97,207</i>	<i>\$ 4,324</i>	<i>\$ 26,118</i>	<i>26.9%</i>
Compliance Fees					
614-32190005	Asbestos Removal Fees	\$ 35,956	\$ 1,667	\$ 14,896	41.4%
614-32190009	Construction Dust Control Fees	\$ 8,608	\$ -	\$ 4,149	48.2%
<i>Subtotal, Compliance Fees</i>		<i>\$ 44,564</i>	<i>\$ 1,667</i>	<i>\$ 19,045</i>	<i>42.7%</i>
<i>Subtotal, All Permit Fee Revenue</i>		<i>\$ 501,766</i>	<i>\$ 47,367</i>	<i>\$ 229,156</i>	<i>45.7%</i>
Base Grants					
614-33366001	EPA, Core Grant	\$ 105,707	\$ -	\$ 69,995	66.2%
614-33403101	DOE, Core Grant	\$ 102,405	\$ -	\$ 44,853	43.8%
<i>Subtotal, Base Grants</i>		<i>\$ 208,112</i>	<i>\$ -</i>	<i>\$ 114,848</i>	<i>55.2%</i>
Fines & Penalties					
614-35990001	Civil Penalty	\$ 2,500	\$ 230	\$ 30,373	
614-35990001	Other Fines	\$ -	\$ -	\$ -	
<i>Subtotal, Fines & Penalties</i>		<i>\$ 2,500</i>	<i>\$ 230</i>	<i>\$ 30,373</i>	
Supplemental Income					
614-33831001	Supplemental Income	\$ 99,210	\$ 28,440	\$ 65,200	65.7%
<i>Subtotal, Supplemental Income</i>		<i>\$ 99,210</i>	<i>\$ 28,440</i>	<i>\$ 65,200</i>	<i>65.7%</i>
Other Income					
614-36111001	Interest	\$ 1,801	\$ 186	\$ 1,217	67.6%
614-36990014	Miscellaneous Income	\$ 8,240	\$ -	\$ 159	1.9%
<i>Subtotal, Other Income</i>		<i>\$ 10,041</i>	<i>\$ 186</i>	<i>\$ 1,377</i>	<i>13.7%</i>
<i>Total YRCAA Base Operations Revenue</i>		<i>\$ 821,629</i>	<i>\$ 76,223</i>	<i>\$ 440,953</i>	<i>53.7%</i>
REVENUE 614 YRCAA Grant Operations					
614-33403105	Wood Stove Ed	\$ 5,300	\$ -	\$ 5,418	102.2%
614-33403108	PM 2.5	\$ 21,050	\$ 5,263	\$ 15,788	75.0%
614-33403107	Woodstove Change-out	\$ 120,000	\$ 57,003	\$ 58,539	48.8%
<i>Total YRCAA Grant Operations Revenue</i>		<i>\$ 146,350</i>	<i>\$ 62,265</i>	<i>\$ 79,744</i>	<i>54.5%</i>
REVENUE Enterprise Operations					
614-34317001	VE Certification Fees	\$ 85,925	\$ 1,150	\$ 41,350	48.1%
614-34317002	Other Enterprise Revenue	\$ 450	\$ -	\$ -	0.0%
<i>Subtotal, Enterprise Revenue</i>		<i>\$ 86,375</i>	<i>\$ 1,150</i>	<i>\$ 41,350</i>	<i>47.9%</i>
<i>Total Base, Grant and Enterprise Revenue</i>		<i>\$ 1,054,354</i>	<i>\$ 139,638</i>	<i>\$ 562,047</i>	<i>53.3%</i>

FY 2016 Monthly Tracking

January 2016				
Report Date: February 11, 2016	Budget	Actual Current	Actual Year to Date	Year to Date % of Budget

EXPENSES
EXPENSES 614 YRCAA Base Operations
Salaries

614-1001	Salaries	\$	508,759	\$	40,837	\$	304,391	59.8%
614-2002	Benefits	\$	188,171	\$	14,348	\$	106,948	56.8%
614-1003	Overtime	\$	-	\$	-	\$	-	0.0%
Subtotal, Salaries		\$	696,930	\$	55,185	\$	411,340	59.0%

Supplies

614-3101	Office Supplies	\$	7,340	\$	303	\$	4,497	61.3%
614-3101	Safety Equipment	\$	-	\$	-	\$	-	0.0%
614-3201	Vehicles, Gas	\$	3,301	\$	121	\$	1,055	32.0%
614-3501	Small Tools/Equipment	\$	-	\$	-	\$	27	0.0%
614-3502	Computer Network	\$	5,466	\$	3,088	\$	8,630	157.9%
Subtotal, Supplies		\$	16,107	\$	3,512	\$	14,210	88.2%

Services

614-4101	Professional Services	\$	14,200	\$	406	\$	7,680	54.1%
614-4101	Laboratory Analyses	\$	157	\$	-	\$	-	0.0%
614-4125	Treasurer, Yakima County	\$	1,272	\$	152	\$	1,050	82.6%
614-4201	Communications, Phones/Internet	\$	12,444	\$	1,043	\$	7,271	58.4%
614-4202	Postage	\$	3,835	\$	500	\$	1,319	34.4%
614-4301	Travel & Transportation	\$	4,005	\$	-	\$	(2)	-0.1%
614-4401	Public Education	\$	4,000	\$	-	\$	1,081	27.0%
614-4401	Publications, Legal Notices	\$	499	\$	-	\$	248	49.8%
614-4501	Rents & Leases, Equipment	\$	1,982	\$	186	\$	1,658	83.6%
614-4501	Rents & Leases, Space	\$	41,760	\$	3,480	\$	24,360	58.3%
614-4601	Insurance	\$	12,789	\$	-	\$	13,398	104.8%
614-4801	Maintenance, Motor Vehicles	\$	2,229	\$	97	\$	3,161	141.8%
614-4801	Maintenance, Equipment	\$	1,853	\$	285	\$	3,061	165.2%
614-4801	Maintenance, Computers	\$	150	\$	-	\$	-	0.0%
614-4801	Maintenance, Building	\$	520	\$	-	\$	-	0.0%
614-4901	Memberships	\$	230	\$	50	\$	172	74.8%
614-4901	Training	\$	1,928	\$	-	\$	1,449	75.2%
614-4901	Service Chgs & Interest	\$	3,295	\$	284	\$	2,455	74.5%
614-4901	Miscellaneous Services	\$	2,471	\$	-	\$	(42)	-1.7%
614-4901	DOE Oversight Fees	\$	5,684	\$	-	\$	-	0.0%
Subtotal, Services		\$	115,303	\$	6,483	\$	68,319	59.3%

Capital Out-Lay & Fixed Assets

614-6401	Capital Out-Lay/Fixed Assets	\$	4,500	\$	-	\$	-	0.0%
Total YRCAA Base Operations Expenses		\$	832,840	\$	65,180	\$	493,869	59.3%

EXPENSES 614 YRCAA Grant Operations
614-33403105 Wood Stove Ed
Salaries

614-1001	Salaries	\$	3,870	\$	-	\$	153	4.0%
614-2002	Benefits	\$	1,430	\$	-	\$	54	3.8%
614-1003	Overtime	\$	-	\$	-	\$	-	0.0%
Subtotal, Salaries		\$	5,300	\$	-	\$	207	3.9%

Supplies

614-3101	Office Supplies	\$	-	\$	-	\$	-	0.0%
Subtotal, Supplies		\$	-	\$	-	\$	-	0.0%

FY 2016 Monthly Tracking

January 2016 Report Date: February 11, 2016		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
Services					
614-4139	Professional Services	\$ -	\$ 500	\$ 660	0.0%
614-4202	Postage	\$ -	\$ -	\$ -	0.0%
	<i>Subtotal, Services</i>	<i>\$ -</i>	<i>\$ 500</i>	<i>\$ 660</i>	<i>0.0%</i>
	<i>Subtotal, Woodstove Grant Expenses</i>	<i>\$ 5,300</i>	<i>\$ 500</i>	<i>\$ 867</i>	<i>16.4%</i>
614-33403108 PM2.5					
Salaries					
614-1001	Salaries	\$ 15,365	\$ 1,295	\$ 7,999	52.1%
614-2002	Benefits	\$ 5,683	\$ 455	\$ 2,811	49.5%
614-1003	Overtime	\$ -	\$ -	\$ -	0.0%
	<i>Subtotal, Salaries</i>	<i>\$ 21,048</i>	<i>\$ 1,749</i>	<i>\$ 10,810</i>	<i>51.4%</i>
Supplies					
614-3101	Office Supplies	\$ 1	\$ -	\$ -	0.0%
	<i>Subtotal, Supplies</i>	<i>\$ 1</i>	<i>\$ -</i>	<i>\$ -</i>	<i>0.0%</i>
Services					
614-4101	Professional Services	\$ 1	\$ -	\$ -	0.0%
	<i>Subtotal, Services</i>	<i>\$ 1</i>	<i>\$ -</i>	<i>\$ -</i>	<i>0.0%</i>
Capital Out-Lay & Fixed Assets					
614-6401	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	0.0%
	<i>Subtotal, PM 2.5 Grant Expenses</i>	<i>\$ 21,050</i>	<i>\$ 1,749</i>	<i>\$ 10,810</i>	<i>51.4%</i>
614-33403107 Woodstove Change-out					
Salaries					
614-1001	Salaries	\$ 16,425	\$ 3,648	\$ 12,334	75.1%
614-2002	Benefits	\$ 6,075	\$ 1,282	\$ 4,334	71.3%
614-1003	Overtime	\$ -	\$ -	\$ -	0.0%
	<i>Subtotal, Salaries</i>	<i>\$ 22,500</i>	<i>\$ 4,930</i>	<i>\$ 16,668</i>	<i>74.1%</i>
Supplies					
614-3101	Office Supplies	\$ -	\$ -	\$ -	0.0%
	<i>Subtotal, Supplies</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>0.0%</i>
Services					
614-4101	Professional Services	\$ 127,500	\$ 48,014	\$ 49,831	39.1%
	<i>Subtotal, Services</i>	<i>\$ 127,500</i>	<i>\$ 48,014</i>	<i>\$ 49,831</i>	<i>39.1%</i>
Capital Out-Lay & Fixed Assets					
614-6401	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	0.0%
	<i>Subtotal, Woodstove Change-out Grant Expenses</i>	<i>\$ 150,000</i>	<i>\$ 52,944</i>	<i>\$ 66,499</i>	<i>44.3%</i>
	<i>Total, Grant Operations Expenses</i>	<i>\$ 176,350</i>	<i>\$ 55,194</i>	<i>\$ 78,176</i>	<i>44.3%</i>
EXPENSES 141 Enterprise Operations					
Salaries					
141-1001	Salaries	\$ 2,548	\$ -	\$ 1,556	61.1%
141-2002	Benefits	\$ 942	\$ -	\$ 547	58.0%
141-1003	Overtime	\$ -	\$ -	\$ -	0.0%
	<i>Subtotal, Salaries</i>	<i>\$ 3,490</i>	<i>\$ -</i>	<i>\$ 2,103</i>	<i>60.3%</i>

FY 2016 Monthly Tracking

January 2016 Report Date: February 11, 2016	Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
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Supplies

141-3101	Office Supplies	\$ 400	\$ -	\$ 305	76.4%
141-3201	Vehicles, Gas	\$ 1,700	\$ -	\$ 537	31.6%
141-3501	Small Tools/Equipment	\$ 200	\$ -	\$ 18	8.9%
<i>Subtotal, Supplies</i>		<i>\$ 2,300</i>	<i>\$ -</i>	<i>\$ 860</i>	<i>37.4%</i>

Services

141-4101	Professional Services	\$ 24,000	\$ -	\$ 12,000	50.0%
141-4202	Postage	\$ -	\$ -	\$ -	0.0%
141-4301	Travel & Transportation	\$ -	\$ -	\$ 118	0.0%
141-4501	Rents & Leases, Space	\$ 5,218	\$ 335	\$ 2,582	49.5%
141-4801	Maintenance, Motor Vehicles	\$ 2,100	\$ -	\$ 71	3.4%
141-4801	Maintenance, Equipment	\$ 505	\$ -	\$ -	0.0%
141-4901	Miscellaneous Services	\$ -	\$ -	\$ -	0.0%
<i>Subtotal, Services</i>		<i>\$ 31,823</i>	<i>\$ 335</i>	<i>\$ 14,771</i>	<i>46.4%</i>

Capital Out-Lay & Fixed Assets

141-4500	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	0.0%
<i>Total Enterprise Operations Expenses</i>		<i>\$ 37,613</i>	<i>\$ 335</i>	<i>\$ 17,734</i>	<i>47.1%</i>

Summary of Revenue vs Expenses:

<i>Prior-Year Carry Over Funds</i>	<i>\$ 125,000</i>	<i>\$ -</i>	<i>\$ 125,000</i>	
<i>Total Revenue, Base, Grants & Enterprise</i>	<i>\$ 1,179,354</i>	<i>\$ 139,638</i>	<i>\$ 687,047</i>	<i>58.3%</i>
<i>Total Expenses, Base, Grants & Enterprise</i>	<i>\$ 1,046,803</i>	<i>\$ 120,708</i>	<i>\$ 589,778</i>	<i>56.3%</i>
<i>Fund Balance</i>	<i>\$ 132,551</i>	<i>\$ 18,930</i>	<i>\$ 97,269</i>	
<i>Operating Reserves</i>	<i>\$ 7,551</i>			
<i>Estimated Available Fund Balance</i>	<i>\$ 125,000</i>			

FY 2016 Monthly Tracking

February 2016 Report Date: March 10, 2016		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
REVEUNE					
REVENUE 614 YRCAA Base Operations					
Stationary Source Permit Fees					
614-32190001	Minor Sources	\$ 155,443	\$ 88,177	\$ 130,759	84.1%
614-32190008	Synthetic Minor Sources	\$ 24,257	\$ 13,300	\$ 21,280	87.7%
614-32190006	Complex Sources	\$ 22,437	\$ 16,705	\$ 19,275	85.9%
614-32290001	Title V Sources	\$ 122,021	\$ -	\$ 122,891	100.7%
614-32190002	New Source Review	\$ 35,837	\$ 8,467	\$ 16,437	45.9%
<i>Subtotal, Stationary Source Permit Fees</i>		<i>\$ 359,995</i>	<i>\$ 126,649</i>	<i>\$ 310,643</i>	<i>86.3%</i>
Burn Permit Fees					
614-32290005	Residential Burn Permits	\$ 63,450	\$ 10,608	\$ 19,728	31.1%
614-32290007	Agricultural Burn Permits	\$ 31,428	\$ 9,663	\$ 26,443	84.1%
614-32290011	Conditional Use Burn Permits	\$ 2,329	\$ -	\$ 218	9.4%
<i>Subtotal, Burn Permit Fees</i>		<i>\$ 97,207</i>	<i>\$ 20,271</i>	<i>\$ 46,389</i>	<i>47.7%</i>
Compliance Fees					
614-32190005	Asbestos Removal Fees	\$ 35,956	\$ 1,757	\$ 16,653	46.3%
614-32190009	Construction Dust Control Fees	\$ 8,608	\$ 155	\$ 4,304	50.0%
<i>Subtotal, Compliance Fees</i>		<i>\$ 44,564</i>	<i>\$ 1,912</i>	<i>\$ 20,957</i>	<i>47.0%</i>
<i>Subtotal, All Permit Fee Revenue</i>		<i>\$ 501,766</i>	<i>\$ 148,832</i>	<i>\$ 377,988</i>	<i>75.3%</i>
Base Grants					
614-33366001	EPA, Core Grant	\$ 105,707	\$ -	\$ 69,995	66.2%
614-33403101	DOE, Core Grant	\$ 102,405	\$ -	\$ 44,853	43.8%
<i>Subtotal, Base Grants</i>		<i>\$ 208,112</i>	<i>\$ -</i>	<i>\$ 114,848</i>	<i>55.2%</i>
Fines & Penalties					
614-35990001	Civil Penalty	\$ 2,500	\$ 281	\$ 30,654	
614-35990001	Other Fines	\$ -	\$ -	\$ -	
<i>Subtotal, Fines & Penalties</i>		<i>\$ 2,500</i>	<i>\$ 281</i>	<i>\$ 30,654</i>	
Supplemental Income					
614-33831001	Supplemental Income	\$ 99,210	\$ 11,616	\$ 76,815	77.4%
<i>Subtotal, Supplemental Income</i>		<i>\$ 99,210</i>	<i>\$ 11,616</i>	<i>\$ 76,815</i>	<i>77.4%</i>
Other Income					
614-36111001	Interest	\$ 1,801	\$ 168	\$ 1,385	76.9%
614-36990014	Miscellaneous Income	\$ 8,240	\$ 2,500	\$ 2,659	32.3%
<i>Subtotal, Other Income</i>		<i>\$ 10,041</i>	<i>\$ 2,668</i>	<i>\$ 4,044</i>	<i>40.3%</i>
<i>Total YRCAA Base Operations Revenue</i>		<i>\$ 821,629</i>	<i>\$ 163,396</i>	<i>\$ 604,350</i>	<i>73.6%</i>
REVENUE 614 YRCAA Grant Operations					
614-33403105	Wood Stove Ed	\$ 5,300	\$ -	\$ 5,418	102.2%
614-33403108	PM 2.5	\$ 21,050	\$ -	\$ 15,788	75.0%
614-33403107	Woodstove Change-out	\$ 120,000	\$ 52	\$ 58,590	48.8%
<i>Total YRCAA Grant Operations Revenue</i>		<i>\$ 146,350</i>	<i>\$ 52</i>	<i>\$ 79,795</i>	<i>54.5%</i>
REVENUE Enterprise Operations					
614-34317001	VE Certification Fees	\$ 85,925	\$ 225	\$ 41,575	48.4%
614-34317002	Other Enterprise Revenue	\$ 450	\$ -	\$ -	0.0%
<i>Subtotal, Enterprise Revenue</i>		<i>\$ 86,375</i>	<i>\$ 225</i>	<i>\$ 41,575</i>	<i>48.1%</i>
<i>Total Base, Grant and Enterprise Revenue</i>		<i>\$ 1,054,354</i>	<i>\$ 163,673</i>	<i>\$ 725,720</i>	<i>68.8%</i>

FY 2016 Monthly Tracking

February 2016				
Report Date: March 10, 2016	Budget	Actual Current	Actual Year to Date	Year to Date % of Budget

EXPENSES

EXPENSES 614 YRCAA Base Operations

Salaries

614-1001	Salaries	\$ 508,759	\$ 42,508	\$ 346,900	68.2%
614-2002	Benefits	\$ 188,171	\$ 14,935	\$ 121,884	64.8%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Salaries</i>		<i>\$ 696,930</i>	<i>\$ 57,443</i>	<i>\$ 468,783</i>	<i>67.3%</i>

Supplies

614-3101	Office Supplies	\$ 7,340	\$ 251	\$ 4,748	64.7%
614-3101	Safety Equipment	\$ -	\$ -	\$ -	#DIV/0!
614-3201	Vehicles, Gas	\$ 3,301	\$ 78	\$ 1,133	34.3%
614-3501	Small Tools/Equipment	\$ -	\$ -	\$ 27	#DIV/0!
614-3502	Computer Network	\$ 5,466	\$ 273	\$ 8,903	162.9%
<i>Subtotal, Supplies</i>		<i>\$ 16,107</i>	<i>\$ 601</i>	<i>\$ 14,811</i>	<i>92.0%</i>

Services

614-4101	Professional Services	\$ 14,200	\$ 1,294	\$ 8,974	63.2%
614-4101	Laboratory Analyses	\$ 157	\$ -	\$ -	0.0%
614-4125	Treasurer, Yakima County	\$ 1,272	\$ 152	\$ 1,202	94.5%
614-4201	Communications, Phones/Internet	\$ 12,444	\$ 1,043	\$ 8,314	66.8%
614-4202	Postage	\$ 3,835	\$ 19	\$ 1,339	34.9%
614-4301	Travel & Transportation	\$ 4,005	\$ -	\$ (2)	-0.1%
614-4401	Public Education	\$ 4,000	\$ -	\$ 1,081	27.0%
614-4401	Publications, Legal Notices	\$ 499	\$ -	\$ 248	49.8%
614-4501	Rents & Leases, Equipment	\$ 1,982	\$ 186	\$ 1,844	93.0%
614-4501	Rents & Leases, Space	\$ 41,760	\$ 3,480	\$ 27,840	66.7%
614-4601	Insurance	\$ 12,789	\$ -	\$ 13,398	104.8%
614-4801	Maintenance, Motor Vehicles	\$ 2,229	\$ -	\$ 3,161	141.8%
614-4801	Maintenance, Equipment	\$ 1,853	\$ 316	\$ 3,377	182.2%
614-4801	Maintenance, Computers	\$ 150	\$ -	\$ -	0.0%
614-4801	Maintenance, Building	\$ 520	\$ 65	\$ 65	12.5%
614-4901	Memberships	\$ 230	\$ -	\$ 172	74.8%
614-4901	Training	\$ 1,928	\$ 300	\$ 1,749	90.7%
614-4901	Service Chgs & Interest	\$ 3,295	\$ 263	\$ 2,718	82.5%
614-4901	Miscellaneous Services	\$ 2,471	\$ 14	\$ (28)	-1.1%
614-4901	DOE Oversight Fees	\$ 5,684	\$ 2,488	\$ 2,488	43.8%
<i>Subtotal, Services</i>		<i>\$ 115,303</i>	<i>\$ 9,620</i>	<i>\$ 77,939</i>	<i>67.6%</i>

Capital Out-Lay & Fixed Assets

614-6401	Capital Out-Lay/Fixed Assets	\$ 4,500	\$ -	\$ -	0.0%
<i>Total YRCAA Base Operations Expenses</i>		<i>\$ 832,840</i>	<i>\$ 67,664</i>	<i>\$ 561,533</i>	<i>67.4%</i>

EXPENSES 614 YRCAA Grant Operations

614-33403105 Wood Stove Ed

Salaries

614-1001	Salaries	\$ 3,870	\$ -	\$ 153	4.0%
614-2002	Benefits	\$ 1,430	\$ -	\$ 54	3.8%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Salaries</i>		<i>\$ 5,300</i>	<i>\$ -</i>	<i>\$ 207</i>	<i>3.9%</i>

Supplies

614-3101	Office Supplies	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Supplies</i>		<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>#DIV/0!</i>

FY 2016 Monthly Tracking

February 2016	Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
Report Date: March 10, 2016				

Services

614-4139	Professional Services	\$ -	\$ -	\$ 660	#DIV/0!
614-4202	Postage	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Services</i>	\$ -	\$ -	\$ 660	#DIV/0!
	<i>Subtotal, Woodstove Grant Expenses</i>	\$ 5,300	\$ -	\$ 867	16.4%

614-33403108 PM2.5

Salaries

614-1001	Salaries	\$ 15,365	\$ 1,437	\$ 9,436	61.4%
614-2002	Benefits	\$ 5,683	\$ 505	\$ 3,315	58.3%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Salaries</i>	\$ 21,048	\$ 1,941	\$ 12,751	60.6%

Supplies

614-3101	Office Supplies	\$ 1	\$ -	\$ -	0.0%
	<i>Subtotal, Supplies</i>	\$ 1	\$ -	\$ -	0.0%

Services

614-4101	Professional Services	\$ 1	\$ -	\$ -	0.0%
	<i>Subtotal, Services</i>	\$ 1	\$ -	\$ -	0.0%

Capital Out-Lay & Fixed Assets

614-6401	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, PM 2.5 Grant Expenses</i>	\$ 21,050	\$ 1,941	\$ 12,751	60.6%

614-33403107 Woodstove Change-out

Salaries

614-1001	Salaries	\$ 16,425	\$ 2,037	\$ 14,371	87.5%
614-2002	Benefits	\$ 6,075	\$ 716	\$ 5,049	83.1%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Salaries</i>	\$ 22,500	\$ 2,753	\$ 19,421	86.3%

Supplies

614-3101	Office Supplies	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Supplies</i>	\$ -	\$ -	\$ -	#DIV/0!

Services

614-4101	Professional Services	\$ 127,500	\$ 1,879	\$ 51,710	40.6%
	<i>Subtotal, Services</i>	\$ 127,500	\$ 1,879	\$ 51,710	40.6%

Capital Out-Lay & Fixed Assets

614-6401	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Woodstove Change-out Grant Expenses</i>	\$ 150,000	\$ 4,631	\$ 71,131	47.4%
	<i>Total, Grant Operations Expenses</i>	\$ 176,350	\$ 6,573	\$ 84,748	48.1%

EXPENSES 141 Enterprise Operations

Salaries

141-1001	Salaries	\$ 2,548	\$ 27	\$ 1,584	62.1%
141-2002	Benefits	\$ 942	\$ 10	\$ 556	59.1%
141-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Salaries</i>	\$ 3,490	\$ 37	\$ 2,140	61.3%

FY 2016 Monthly Tracking

February 2016 Report Date: March 10, 2016		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
Supplies					
141-3101	Office Supplies	\$ 400	\$ -	\$ 305	76.4%
141-3201	Vehicles, Gas	\$ 1,700	\$ -	\$ 537	31.6%
141-3501	Small Tools/Equipment	\$ 200	\$ -	\$ 18	8.9%
<i>Subtotal, Supplies</i>		<i>\$ 2,300</i>	<i>\$ -</i>	<i>\$ 860</i>	<i>37.4%</i>
Services					
141-4101	Professional Services	\$ 24,000	\$ -	\$ 12,000	50.0%
141-4202	Postage	\$ -	\$ -	\$ -	#DIV/0!
141-4301	Travel & Transportation	\$ -	\$ -	\$ 118	#DIV/0!
141-4501	Rents & Leases, Space	\$ 5,218	\$ 733	\$ 3,315	63.5%
141-4801	Maintenance, Motor Vehicles	\$ 2,100	\$ -	\$ 71	3.4%
141-4801	Maintenance, Equipment	\$ 505	\$ -	\$ -	0.0%
141-4901	Miscellaneous Services	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Services</i>		<i>\$ 31,823</i>	<i>\$ 733</i>	<i>\$ 15,504</i>	<i>48.7%</i>
Capital Out-Lay & Fixed Assets					
141-4500	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
<i>Total Enterprise Operations Expenses</i>		<i>\$ 37,613</i>	<i>\$ 769</i>	<i>\$ 18,503</i>	<i>49.2%</i>
Summary of Revenue vs Expenses:					
<i>Prior-Year Carry Over Funds</i>		<i>\$ 125,000</i>	<i>\$ -</i>	<i>\$ 125,000</i>	
<i>Total Revenue, Base, Grants & Enterprise</i>		<i>\$ 1,179,354</i>	<i>\$ 163,673</i>	<i>\$ 850,720</i>	<i>72.1%</i>
<i>Total Expenses, Base, Grants & Enterprise</i>		<i>\$ 1,046,803</i>	<i>\$ 75,006</i>	<i>\$ 664,785</i>	<i>63.5%</i>
<i>Fund Balance</i>		<i>\$ 132,551</i>	<i>\$ 88,667</i>	<i>\$ 185,936</i>	
<i>Operating Reserves</i>		<i>\$ 7,551</i>			
<i>Estimated Available Fund Balance</i>		<i>\$ 125,000</i>			



Executive Memorandum

Date of Release: March 2, 2016
Date of Consideration: March 10, 2016
To: Board of Directors
From: Quatandra Jarvis, Clerk of the Board
Subject: 2016 Board Officers

ISSUE:

Elect the 2016 Board of Director's Chair and Vice-Chair

RECOMMENDATION(S):

Staff asks the Board to open nominations and elect the 2016 Board Officers

DISCUSSION:

With the beginning of a new year it is appropriate to elect a Board Chair and Vice-Chair. Both positions have a term of one year and the Vice-Chair will serve in the absence of the Chair.

AGENDA ITEM NO. 8



Executive Memorandum

Date of Release: March 3, 2016
Date of Consideration: March 10, 2016
To: YRCAA Board of Directors
From: Office of the Compliance & Enforcement Division Supervisor
Subject: Uncollectable Debts *K. Hurley*

Issue: Dismissing Uncollectable Debts owed to the YRCAA

Recommendation(s): Approve Resolution No. 2016-01 for the dismissal of the attached uncollectable debts.

Discussion: Under the provisions of YRCAA Administrative Code Part B, subsection 10.14.5, the attached list of debts have become uncollectable and as such should be removed from the list of Accounts Receivable. YRCAA last brought such action before the Board of Directors in December of 2015.

Uncollectable Debts are the result of debtors failing to pay legitimately assessed fees, fines or penalties. YRCAA Administrative Code Part B, subsection 10.15.5 authorizes the agency to dismiss such debts as uncollectable if one or more of the following reasons exist:

- 1) The whereabouts of the debtor are not known
- 2) The debtor owns no real or personal property subject to lien
- 3) The debtor has demonstrated an inability to pay
- 4) The debtor has filed Bankruptcy and the YRCAA has not been assigned as a creditor due payment

The most recent quarterly reconciliation of the accounts receivable revealed a total of 5 uncollectable debts totaling \$3,300.00. Attached is a list of debts which have been reviewed for compliance with the above criteria. Staff requests the Board designate the listed debts as uncollectable, and to direct staff to dismiss the debts as such by Resolution No. 2016-01.

Attachments:
Uncollectable Debts Listing

AGENDA ITEM NO. 9



Yakima Regional Clean Air Agency
329 North First Street, Yakima WA 98901
(509) 834-2050 yakimacleanair.org

Name	Type of Debt	Listed Date	Amount	Reason
Acosta, Cipriano	Penalty	6/22/2010	\$400.00	Past Statute Limits
Cushing, John	Penalty	3/22/2011	\$400.00	Past Statute Limits
Littlejohn, Ray	Penalty	6/22/2010	\$400.00	Past Statute Limits
Tapia, Miguel	Penalty	6/22/2010	\$400.00	Past Statute Limits
Tinajero, Cesar	Penalty	6/07/2010	\$1,700.00	Past Statute Limits
TOTAL			\$3,300.00	

RESOLUTION NO. 2016-01
BEFORE THE GOVERNING BOARD OF THE
YAKIMA REGIONAL CLEAN AIR AGENCY (YRCAA)

Dismissing Uncollectable Debts:

WHEREAS, the Board of Directors of the YRCAA, as a municipal corporation under RCW 70.94.081, have the right to perpetual succession, may sue and be sued, and may receive, account for and disburse funds; and

WHEREAS, pursuant to RCW 70.94.431, the YRCAA has the authority to assess civil penalties for violations of regulations enforceable by law; and

WHEREAS, there exists a number of assessed penalties which qualify as uncollectable as per the YRCAA Administrative Code, Part B, Subsection 10.14.5; and

WHEREAS, these uncollectable debts are being brought before the Governing Board of Directors for consideration of dismissal as debts owed to the YRCAA.

BE IT THEREFORE RESOLVED that the YRCAA Board of Directors dismisses the attached list of debts owed to the YRCAA in the amount of \$3,300.00 as uncollectable, and directs staff to remove the debts from the YRCAA's list of accounts receivable.

On motion of _____, seconded by _____, the foregoing resolution is hereby PASSED AND ADOPTED by the Yakima Regional Clean Air Agency Board of Directors on this Tenth day of March, 2016.

Rand Elliott, Director

Norm Childress, Director

Steven Jones, Director

Director

Jon DeVaney, Director

Quatandra Jarvis, Clerk of the Board



Executive Memorandum

Date of Release: March 3, 2016
Date of Consideration: March 10, 2016
To: Board of Directors
From: Office of the Engineering and Planning Division
Subject: January and February Engineering and Planning Division Report

Issue:
Monthly activities report to the Board of Directors of YRCAA.

Recommendation(s):
Accept and File.

Discussion:

The following summarizes some of the activities for the months of January and February including some additional related information:

- February 16, 2016 was the deadline for the annual registered sources with the agency. We have registered 309 sources up-to-date.
- We are preparing for the residential burn program which will start on March 15, 2016.
- Issued two New Source Review (NSR) Orders of Approval.
- Drafted 3 NSR Order of Approvals.
- Submitted the required reports to Environmental Protection Agency (EPA).
- Reviewed/responded to 22 SEPA projects.
- Issued 86 Agricultural burn permits.
- Had several technical assistance meetings with industry.
- Worked on the daily weather forecasts for the burn status and agricultural allocation.
- One burn ban was called for the month of January lasted for 24 days.
- We may have one exceedance during the month of January and none in February (shown in the attached graphs).

Attachments:

- ✓ *PM_{2.5} Monitor Data for the month of January and February, 2016 and the annual graphs.*

AGENDA ITEM NO. 10

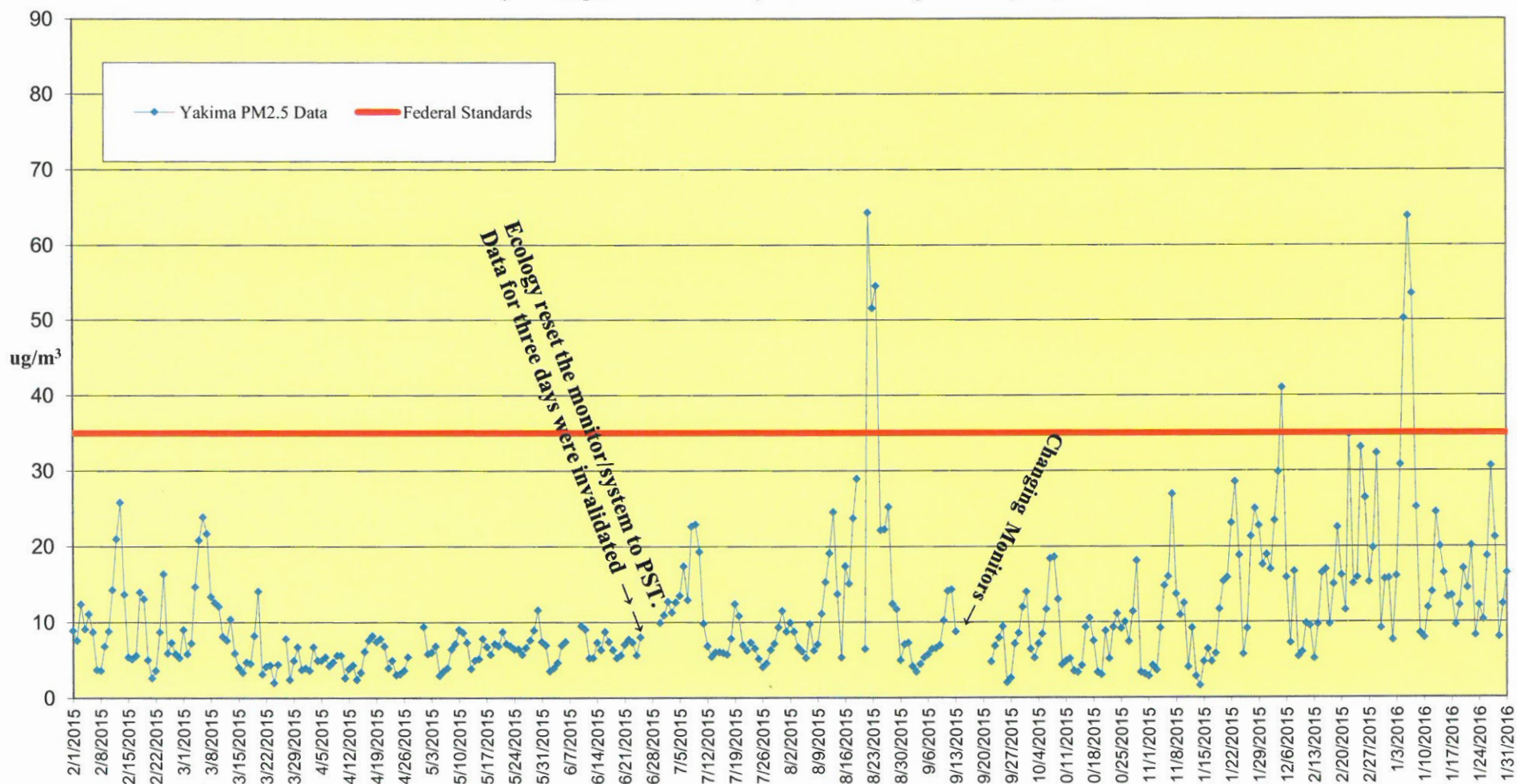
PM_{2.5} BAM_{2.5} Data and TPM₁₀ for Yakima; Neph PM_{2.5} Data for Sunnyside

Daily Averages Value from January 1, 2016 through January 31, 2016



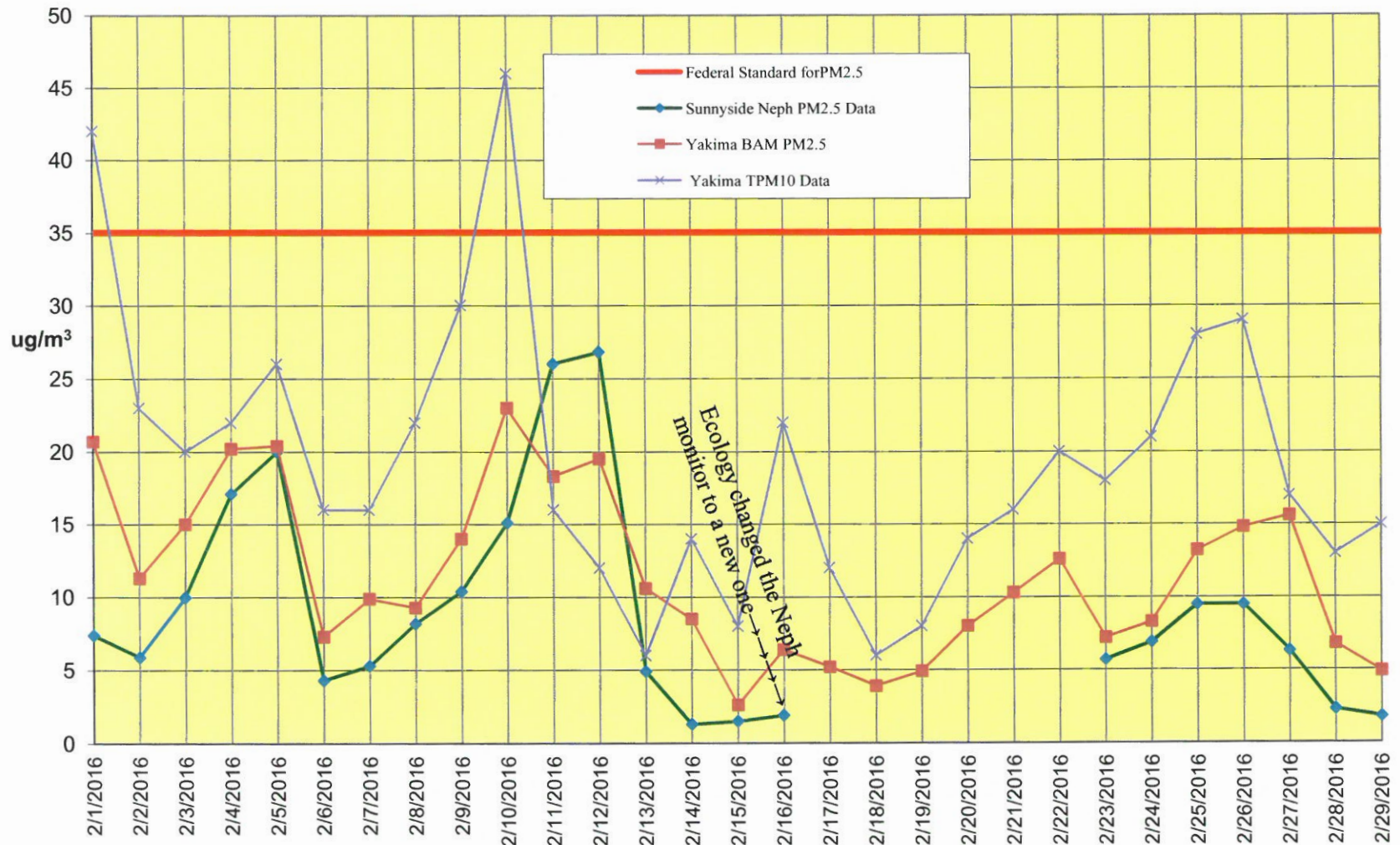
PM_{2.5} FEM/BAM_{2.5}(starting September 15, 2015) Annual Air Monitoring Data, City of Yakima

Daily Averages from February 1, 2015 through January 31, 2016



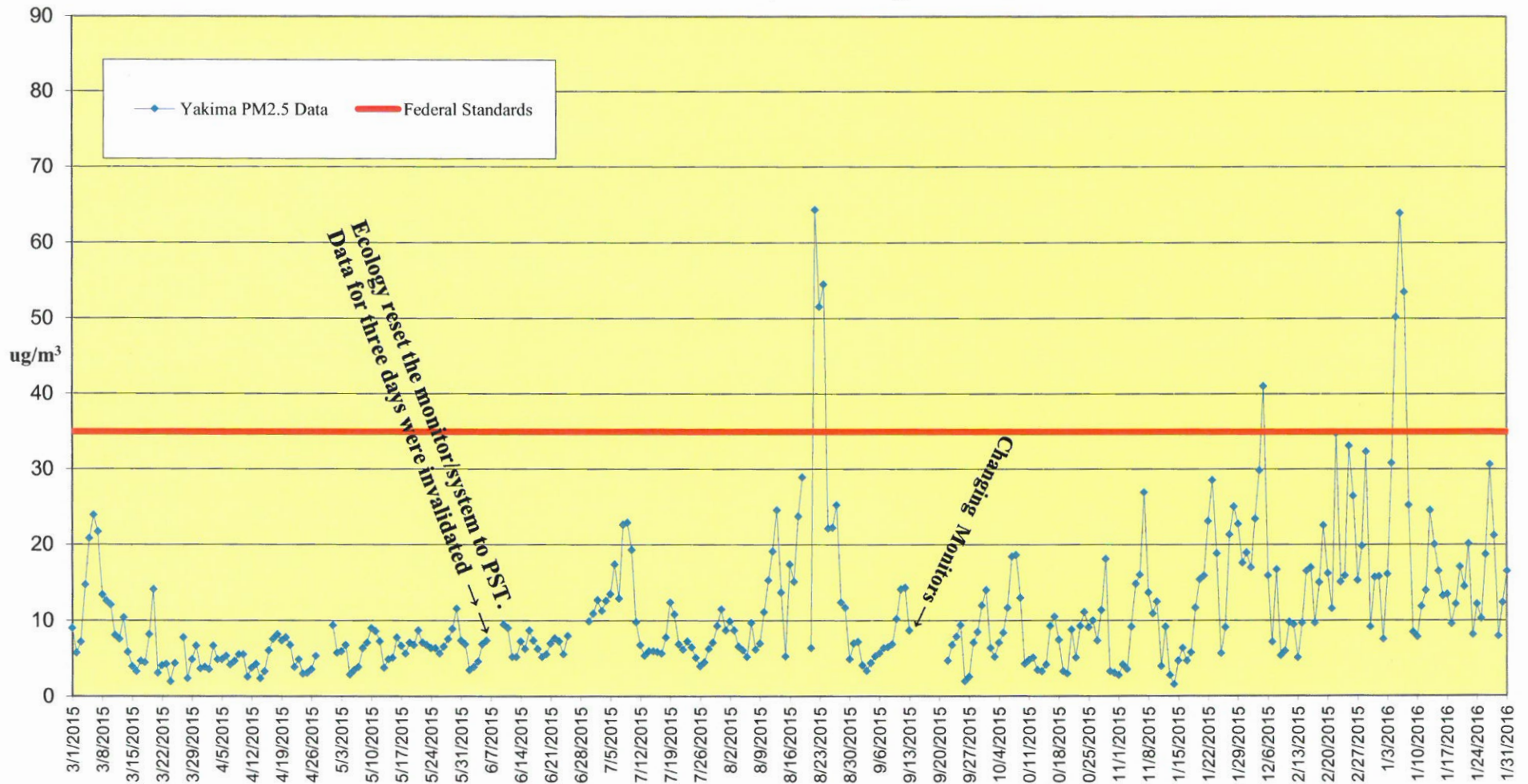
PM_{2.5} BAM_{2.5} Data and TPM₁₀ for Yakima; Neph PM_{2.5} Data for Sunnyside

Daily Averages Value from February 1, 2016 through February 29, 2016



PM_{2.5} FEM/BAM_{2.5}(starting September 15, 2015) Annual Air Monitoring Data, City of Yakima

Daily Averages from March 1, 2015 through February 29, 2016





Executive Memorandum

Date of Release: March 3, 2016
Date of Consideration: March 10, 2016
To: YRCAA Board of Directors
From: Office of the Compliance & Enforcement Division Supervisor
Subject: January & February 2016 Compliance & Enforcement Division Report *K. Hurley*

Issue: N/A

Recommendation(s): Accept and File

Discussion: During the months of January and February the Division setup, collected and shipped for analysis approximately 60 Air Monitoring Samples, completed 16 Quality Control Checks on 7 Air Monitors, and replaced one Nephelometer in Sunnyside. The division also investigated 49 Complaints, issued 33 Notices of Violation (NOV), and issued 17 Notices of Penalty (NOP) for previously issued NOV's. In addition, the Division reviewed and processed 27 Notifications of Demolition / Renovation (NODR), and completed 17 Minor Source site visits.

The following table itemizes, by type, the complaints received and the number of NOV's issued for the months of January & February 2016:

<u>Type of Complaint</u>	<u>Number of Complaints</u>	<u>Number of NOV's</u>
Residential Burning	4	2
Agricultural Burning	7	1
Other Burning	31 (29-SFBD, 2-IB) *	28 (26-SFBD, 2-IB) *
Fugitive Dust	0	0
Agricultural Dust	0	0
Agricultural Odor	6	0
Surface Coating	0	0
Odor	0	0
Asbestos	1	1
Other	0	1-NSR *
<u>TOTALS</u>	<u>49</u>	<u>33</u>

Attachments

- DOE Air Monitoring Data Quality Assessment Report for the 3rd Quarter of 2015
- USEPA Region X Technical Systems Assessment of the Washington Department of Ecology Air Quality Program
- Uncollectable Debits Dismissal Executive Memorandum
- Uncollectable Debits Dismissal Resolution 2016-01

AGENDA ITEM NO. 11



*Yakima Regional Clean Air Agency
329 North First Street, Yakima WA 98901
(509) 834-2050 yakimacleanair.org*

- SFBD = Solid Fuel Burning Device *
- IB = Illegal Burn *
- NSR = New Source Review *



DEPARTMENT OF
ECOLOGY
State of Washington

Air Monitoring Data Quality Assessment Report
3rd Quarter 2015

Prepared by

Sean Lundblad
Air Quality Program

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Acronyms and Abbreviations

AQP	Air Quality Program
AQS	Air Quality System
CO	carbon monoxide
CV	Coefficient of Variation
DQI	Data Quality Indicator
DQO	Data Quality Objective
EPA	United States Environmental Protection Agency
FEM	Federal Equivalent Method
FRM	Federal Reference Method
MQO	Measurement Quality Objective
NAAQS	National Ambient Air Quality Standards
NCore	National Core Monitoring Network
NIST	National Institute of Standards and Technology
NO	nitric oxide
NO ₂	nitrogen dioxide
PE	Performance Evaluation
PQAO	Primary Quality Assurance Organization
PM ₁₀	particulate matter with diameter less than 10 microns
PM _{10-2.5}	particulate matter with diameter between 10 and 2.5 microns
PM _{2.5}	particulate matter with diameter less than 2.5 microns
ppb	parts per billion
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
SASS	Speciation Air Sampling System
SO ₂	sulfur dioxide
WAQA	Washington Air Quality Advisory

Introduction

The Washington State Ambient Air Monitoring Network (Washington Network) is designed to collect vital air data for national, state, local, and tribal needs. It is important to people and organizations concerned with human health, planning, policy or research applications that ambient air data collected by personnel from various agencies are of known, acceptable, and comparable quality. Decision makers (data users) also need to be aware of the amount of error in the data to which their decision will apply. The data used in these decisions are never error free and always contain some level of uncertainty. Because of these uncertainties or errors, there is a possibility that decision makers may declare an area “nonattainment” when the area is actually in “attainment” or “attainment” when actually the area is in “nonattainment.” There are serious political, economic, and health consequences of making such decision errors.

In order to provide decision makers with data of acceptable quality, the Washington State Department of Ecology (Ecology) ambient air monitoring Quality Assurance Plan (QAP) describes Ecology’s role as a Primary Quality Assurance Organization (PQAO). As a PQAO, it is the goal that measurement uncertainty among all stations in the organization be reasonably homogeneous as a result of common factors which include:

- Operation by a common team of field operators according to a common set of procedures.
- Use of common standard operating procedures.
- Common calibration facilities.
- Oversight by a common quality assurance organization.
- Support by a common management, laboratory, or headquarters.

The quality assurance regulations (Monitoring Rule), set forth in 40 CFR Part 58 Appendix A, have been developed to ensure that monitoring programs are planned so that it is known what data quality is needed, that checks are included to assess data quality, and corrective actions are in place to improve quality systems when needed. It is the goal of the Air Quality Program (AQP) to follow regulations and guidance from the United States Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards.

The Air Monitoring Data Quality Assessment Report for the 3rd Quarter 2015 describes the quality of the data collected from July 1 through September 30, 2015.

Data Quality

To provide decision makers with data of acceptable quality, EPA implemented the Data Quality Objective (DQO) process and established acceptance criteria for precision and bias. DQOs are a set of performance measures used in data collection that specify the level of uncertainty (error) that the decision maker is willing to accept in the data to which the decision will apply. By knowing how much uncertainty is in the data, especially from locations that are at risk of being declared “nonattainment” or are already in nonattainment, decision makers are provided

additional confidence to make the correct environmental decision. DQOs are assessed through the use of data quality indicators (DQIs), which are the quantitative statistics and the qualitative descriptors used to interpret the degree of acceptability or utility of data to the user. The DQIs are used to establish the Measurement Quality Objectives (MQOs). Data quality is assessed quarterly using the EPA's AMP256 QA Data Quality Indicator report, downloaded from EPA's Air Quality System (AQS).

MQOs are based on confidence intervals. A confidence interval is a measurement of how good, or how accurate the measurement is. It is different to say the bias is 5 percent $\pm$ 10 percent compared to saying the bias is 5 percent $\pm$ 1 percent. Close attention to these intervals can be helpful in preventing data loss while providing decision makers greater confidence in the data and their decisions.

Sampling Methods

The assessment is divided into four categories: **Automated Data**, **Manual Data**, **Meteorological Data**, and **Washington Air Quality Advisory (WAQA) Data**, and subdivided into monitoring methods specifying allowable uncertainty levels required to meet the DQOs.

Automated, manual, and meteorological data are collected using EPA-tested and approved instruments that directly support rulemaking, enforcement, regulatory, or policy decisions. The data also support research projects of significant national interest requiring the most formal DQOs, including detailed and rigorous quality control (QC) and quality assurance (QA) for legal and scientific defensibility. Most instruments used in the collection of automated and manual data are listed as Federal Reference Methods (FRM) or Federal Equivalent Methods (FEM).

Data used for the National Air Monitoring Strategy require, at a minimum, routine QC and QA checks as required in the Monitoring Rule. Results from these checks are entered into the EPA AQS database and aggregated on quarterly, annual, and three-year intervals to assess precision and bias on a state and national level.

WAQA and Air Quality Index (AQI) data are collected with a mix of non-FRM/FEM instruments to report air quality to the public in near-real-time. However, one should use caution when using non FRM/FEM data to make decisions as there can be a greater degree of error inherent in the data.

Automated Data

Data collected by instruments that continuously measure the ambient air are referred to as Automated Data. Automated instruments are designed to measure specific pollutants, including ozone (O₃), carbon monoxide (CO), sulfur dioxide (SO₂), nitric oxide (NO), and fine and coarse particulate matter (PM_{2.5} and PM₁₀, respectively). Instrument calibrations are checked on a routine basis and the results are used to determine the quality of the data.

Data Quality Indicators for Gaseous Pollutants

One-Point QC Precision Estimate for Gaseous Pollutants (CV%)

On a routine basis, QC checks are performed on the station analyzer to determine the calibration drift of the instrument. The analyzer is challenged with gases traceable to National Institute of Standards and Technology (NIST) standards and the difference between the two is recorded by a data acquisition system and submitted to AQS.

To determine the measure of mutual agreement among the QC checks, the coefficient of variation CV% (precision estimate) is calculated every quarter as described in the Monitoring Rule to assess the precision of the instrument. Slight variations (or wiggle) in the precision is acceptable provided the data is not biased too high or low. Large variations in precision are unacceptable and must be corrected.

Bias Estimate (Bias)

The bias estimate is the systematic difference (or noticeable jump) of the expected concentrations and the measured concentrations over time. As described in the Monitoring Rule, bias estimates are calculated to determine if there is a systematic or persistent distortion of the data which causes error in one direction. A positive (+) bias indicates that the instrument is measuring above the actual (true) value. A negative (-) bias indicates that the instrument is measuring below the actual value. A “±” symbol represents the instrument “straddles the line” and is neither biased positive nor negative.

A continued bias in an instrument close to either side of “true value” is acceptable. However, a continued bias nearing the limits on the MQOs should be corrected before variations in the precision result in the instrument failing to meet the MQOs.

The one-point QC checks are submitted to AQS and aggregated by quarter, annual, and three-year periods to determine if the DQOs are being met on a national level.

Completeness (% Valid Data)

Completeness is a term used to describe, in percentage, the actual amount of data collected compared to what was expected. The percentage of valid data is the measure of data (averaged in hours) obtained from a monitoring instrument (that meets the MQOs) calculated against the total number of hours in the calendar quarter and may include specific months or number of months in the year that must include valid data to determine if the DQOs were met. The AQP data completeness goal is that at least 80 percent of the expected data be collected each calendar quarter.

Loss of data occurs on occasion and may be a result of a calibration error, malfunction, power loss, telemetry communications, or operator error.

Annual Performance Evaluations

Performance evaluations are independent evaluations of the monitoring site operations conducted by AQP QA personnel. Site evaluations are performed at all automated, manual, and meteorological monitoring sites and concerns noted. The primary purpose of the evaluation is to provide an independent check to determine if the checks made by QA personnel agree with previous QC checks made at the site by automated or manual checks. A large difference between the two may indicate an instrument or systematic problem.

Ozone

The MQO for the measurement of ozone is the precision estimate (CV%) and bias be within ± 7 percent.

Table 1. DQI Results for Ozone Analyzers in Percentage				
Location	AQS Number	CV%	Bias	% Valid Data
Anacortes	530570011	0.95	± 0.74	88
Cheeka Peak	530090013	1.24	± 1.15	97
Cheney	530630001	1.11	+ 2.75	93
Custer	530730005	0.65	- 0.75	96
Enumclaw	530330023	1.36	+ 2.51	97
Greenbluff	530630046	0.91	- 1.26	97
Issaquah	530330010	0.95	+ 1.06	89
Kennewick, S. Clodfelter	530050003	3.22	± 2.59	83
Mt. Rainier, JVC	530530012	1.26	± 1.03	93
North Bend	530330017	1.00	+ 1.92	97
Seattle, Beacon Hill (BH)	530330080	1.18	+ 1.92	84
Spokane, Augusta Ave.	530630021	1.63	± 1.24	92*
Vancouver	530110011	2.80	± 2.22	84
Yelm	530670005	0.63	- 1.43	96
* Monitor down for extended period due to roof repairs. Completeness in AQS = 69%.				

Annual Performance Evaluations for Ozone

An evaluation involves an independent assessment by AQP QA personnel who use independent equipment to challenge the station analyzer with gas concentrations at levels that best reflect ambient concentrations observed at the monitoring site. The difference between the actual ozone concentrations (generated by the QA personnel equipment) is compared against the station analyzer response. Two independent assessments are performed each year and the observations at each test level are averaged by year.

The analyzers are challenged with independent gas concentrations (Levels 2–6) to best reflect ambient concentrations observed at the monitoring site.

The MQO for audit results is that the difference be within ± 7 percent for Levels 3–6 and within ± 1.5 ppb or ± 15 percent for Levels 1 and 2.

Table 2. Performance Evaluation Results for Ozone Analyzers in Percent Difference from Assessment Concentration						
Location	Level 1 4–6 ppb	Level 2 6–20 ppb	Level 3 20–40 ppb	Level 4 40–70 ppb	Level 5 70–90 ppb	Level 6 90–120 ppb
Anacortes	*	- 1.33	*	- 1.60	*	- 1.00
Cheeka Peak	*	*	*	*	*	*
Cheney	*	*	*	*	*	*
Custer	*	- 0.63	*	-2.60	*	- 3.91
Enumclaw	*	3.08	*	2.50	*	1.95
Greenbluff	*	*	*	*	*	*
Issaquah	*	0.67	*	- 1.45	*	- 0.19
Kennewick, S. Clodfelter	*	0.67	*	- 3.45	*	- 2.76
Mt. Rainier, JVC	*	*	*	*	*	*
North Bend	*	- 2.67	*	- 2.40	*	- 0.27
Seattle, BH	*	*	*	*	*	*
Spokane	*	*	*	*	*	*
Vancouver	*	- 6.00	*	- 4.73	*	- 5.71
Yelm	*	0.00	*	- 2.00	*	- 2.73
* No evaluation performed during the quarter.						

Carbon Monoxide (CO)

The MQO for the measurement of CO at the NCore (NC) sites is that the relative precision (CV%) and bias be within ± 15 percent. For instruments measuring CO for National Ambient Air Quality Standards (NAAQS) attainment (Seattle, 10th & Weller and Spokane), the relative precision (CV%) and bias must be within ± 10 percent. The table below represents the average precision and bias of the CO instruments in the Washington Network.

Table 3. DQI Results for CO Analyzers in Percentage				
Location	AQS Number	CV%	Bias	% Valid Data
Cheeka Peak (NC)	530090013	8.58	± 7.27	74*
Seattle, 10th & Weller near-road	530330030	5.14	+ 5.09	95
Seattle, BH (NC)	530330080	1.84	- 4.16	96

Table 3. DQI Results for CO Analyzers in Percentage

Location	AQS Number	CV%	Bias	% Valid Data
Spokane	530630049	3.90	± 2.81	91
* Operator error.				

Annual Performance Evaluation for CO

An evaluation involves an independent assessment by AQP QA personnel who use independent equipment to challenge the station analyzer with gas concentrations at levels that best reflect ambient concentrations observed at the monitoring site. The difference between the actual CO concentrations (generated by the QA personnel equipment) is compared against the station analyzer response.

The NCore and near-road instruments are challenged with independent gas concentrations (Levels 1–5) to best reflect ambient concentrations observed at the monitoring sites. The Spokane monitor is challenged at higher levels (Levels 5–8) due to the type of instrument being used.

The MQO for performance evaluation results is that the difference be within ± 10 percent for Levels 3–8 and within ± 30 ppb or ± 15 percent for Levels 1 and 2.

Table 4. Performance Evaluation Results for CO Analyzers in Percentage

Location	Level 1 20–59 ppb	Level 2 60–199 ppb	Level 3 200–899 ppb	Level 4 900–2999 ppb	Level 5 3000– 7999 ppb	Level 6 8000– 15999 ppb	Level 7 16000– 30999 ppb	Level 8 31000– 39999 ppb
Cheeka Peak (NC)	*	*	*	*	*	*	*	*
Seattle, BH (NC)	*	*	*	*	*	*	*	*
Seattle, near-road	*	*	*	*	*	*	*	*
Spokane	*	*	*	*	*	*	*	*
* No evaluation performed during the quarter.								

Sulfur Dioxide (SO₂)

The MQO for the measurement of SO₂ is the relative precision (CV%) and bias be within ± 15 percent.

Table 5. DQI Results for SO₂ Analyzers in Percentage

Location	AQS Number	CV%	Bias	% Valid Data
Anacortes	530570011	2.52	+ 2.53	85
Cheeka Peak	530090013	2.08	± 1.77	93
Seattle, BH	530330080	1.42	- 6.65	96

Annual Performance Evaluation Audits for SO₂

An evaluation involves an independent assessment by AQP QA personnel who use independent equipment to challenge the station analyzer with gas concentrations at levels that best reflect ambient concentrations observed at the monitoring site. The difference between the actual SO₂ concentrations (generated by the QA personnel equipment) is compared against the station analyzer response.

The analyzers are challenged with independent gas concentrations (Levels 1–6) to best reflect ambient concentrations observed at the monitoring site.

The MQO for performance evaluation results is that the difference be within ± 10 percent for Levels 4–6, within ± 15 for Level 3, and within ± 1.5 ppb or ± 15 percent for Levels 1–2.

Table 6. Performance Evaluation Results for SO₂ Analyzers in Percentage

Location	Level 1 0.3–2.9 ppb	Level 2 3–4.9 ppb	Level 3 5–7.9 ppb	Level 4 8–19.9 ppb	Level 5 20–49.9 ppb	Level 6 50–99.9 ppb
Anacortes	*	*	*	*	*	*
Cheeka Peak	*	*	*	*	*	*
Seattle, BH	*	*	*	*	*	*

* No evaluation performed during the quarter.

Nitrogen Dioxide (NO₂)

The MQO for the measurement of NO₂ is the relative precision (CV%) and bias be within ± 15 percent.

Table 7. DQI Results for NO₂ Analyzers in Percentage

Location	AQS Number	CV%	Bias	% Valid Data
Seattle, 10th & Weller near-road	530330030	2.70	± 2.04	95
Seattle, BH	530330080	4.49	± 3.25	91

Performance Evaluations Audits for NO₂

An evaluation involves an independent assessment by AQP QA personnel who use independent equipment to challenge the station analyzer with gas concentrations at levels that best reflect ambient concentrations observed at the monitoring site. The difference between the actual NO₂ concentrations (generated by the QA personnel equipment) is compared against the station analyzer response.

The analyzers are challenged with independent gas concentrations (Levels 1–6) to best reflect ambient concentrations observed at the monitoring site.

The MQO for performance evaluation results is that the difference be within ± 15 percent for Levels 3–6 and within ± 1.5 ppb or 15 percent for Levels 1–2.

Table 8. Performance Evaluation Results for NO₂ Analyzers in Percentage

Location	Level 1 0.3–2.9 ppb	Level 2 3–4.9 ppb	Level 3 5–7.9 ppb	Level 4 8–19.9 ppb	Level 5 20–49.9 ppb	Level 6 50–99.9 ppb	Level 7 100–299.9 ppb
Seattle, 10th & Weller near-road	*	*	*	*	*	*	*
Seattle, BH	*	*	*	*	*	*	*
* No evaluation performed during the quarter.							

Nitric Oxide (NO)

The MQO for the measurement of NO is the relative precision (CV%) and bias be within ± 15 percent.

Table 9. DQI Results for NO Analyzers in Percentage

Location	AQS Number	CV%	Bias	% Valid Data
Cheeka Peak	530090013	1.18	1.49	91
Seattle, BH (NC)	530330080	3.9	- 10.38	96

Performance Evaluations for NO

The MQO for performance evaluation results is that the difference be within ± 10 percent for Levels 6–7, within ± 15 percent for Levels 3–5, and ± 1.5 ppb or ± 15 percent for Levels 1–2.

Table 10. Performance Evaluation Results for NO Analyzers in Percentage

Location	Level 1 0.3–2.9 ppb	Level 2 3–4.9 ppb	Level 3 5–7.9 ppb	Level 4 8–19.9 ppb	Level 5 20–49.9 ppb	Level 6 50–99.9 ppb	Level 7 100–300 ppb
Cheeka Peak	*	*	*	*	*	*	*
Seattle, BH	*	*	*	*	*	*	*
* No evaluation performed during the quarter.							

Data Quality Indicators for Particulate Pollutants

Bias Estimate (Bias)

The bias estimate is the systematic difference of the expected flows and the measured flows over time. As described in the Monitoring Rule, bias estimates are calculated to determine if there is a systematic or persistent distortion of the data which causes error in one direction.

Instrument flow rates can fluctuate over time. A one-point flow rate verification (QC check) of the instrument is performed, at a minimum, every 30 days. The objective of the QC check is to measure the true flow rate of the instrument, using NIST traceable standards, while recording the indicated flow rate of the instrument. The difference between the two is calculated (in percentage) to determine how close to “true” the indicated flow is. A positive (+) bias indicates that the instrument flow rates are operating above the actual (true) value while a negative (-) bias indicates that the instruments flow rate is below the actual value. A “ $\pm$ ” symbol indicates that the instrument “straddles the line” and is neither positively nor negatively biased. The checks are aggregated by quarter, annual, and 3-year periods.

One-Point Flow QCs Precision Estimate for Particulate Pollutants (Average % D)

Every 30 days, a one-point flow rate verification (QC check) is performed on particulate instruments by measuring the actual and indicated flow of the instrument. The actual instrument flow is measured by the station operator using NIST-traceable standards. The difference between the actual flow and the indicated instrument flow is calculated and recorded by the station operator and submitted to the AQS.

Semi-Annual Flow Rate Audits (Audit % D)

In addition to monthly QC checks, an independent flow rate audit is performed by QA personnel on a semi-annual basis. The objective of the auditor is to measure the actual flow rate of the instrument using an independent, NIST-traceable standard, while recording the indicated flow rate of the instrument. The deviation between the two flows is calculated, recorded, and submitted to AQS.

Fine Particulate Matter (PM_{2.5} FEM - Continuous)

The MQO for the measurement of PM_{2.5} using a Federal Equivalent Method instrument is that bias and precision (Average % D) be within ± 4 percent. Audit results (Audit % D) must be within ± 4 percent and the Design Flow must be within ± 5 percent.

Table 11. DQI Results for Continuous FEM PM_{2.5} Monitors in Percentage

Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Anacortes	530570011	- 0.33	- 0.62	- 3.86	98
Bellingham	530730015	0.67	+ 0.67	- 1.64	91
Bremerton	530350007	0.59	± 1.07	0.67	96
Darrington	530610020	- 0.49	- 1.03	*	89
Ellensburg	530370002	1.52	+ 1.76	*	79 [†]
Kent	530332004	- 0.46	± 1.02	- 1.97	92
Lynnwood	530610005	- 1.15	- 1.75	- 1.96	98
Marysville	530611007	- 0.33	± 0.76	- 1.32	93
Marysville (collocated)	530611007	- 0.11	± 0.33	- 0.66	98
Seattle, 10th & Weller near-road	530330030	0.34	± 0.97	*	97
Seattle, BH (NC)	530330080	0.17	± 1.07	- 1.72	91
Seattle, Duwamish	530330057	0.90	± 1.47	- 0.47	98
Spokane, Augusta	530630021	1.01	+ 1.01	*	96
Tacoma, South L St.	530530029	-0.22	± 0.74	*	94

Table 11. DQI Results for Continuous FEM PM_{2.5} Monitors in Percentage

Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Vancouver 84th	530110024	- 1.48	- 2.13	- 1.64	69 [†]
Wenatchee, Fifth St.	530070011	- 1.31	- 1.76	- 1.64	80
Yakima (TEOM)	530770009	- 1.64	- 1.64	*	95
Yakima (BAM)	530770009	- 2.40	- 2.40	- 0.60	99 [§]
* No evaluation performed during the quarter. † Equipment failure. ‡ Operator error. § BAM replaces TEOM at Yakima on 9/21/2015.					

Particulate Matter (PM₁₀ FEM - Continuous)

The MQO for the measurement of PM₁₀ using a Federal Equivalent Method instrument is bias and precision (% D) be within ± 10 percent. Audit results (Audit % D) must be within ± 10 percent.

Table 12. DQI Results for Continuous FEM PM₁₀ Monitors in Percentage

Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Colville	530650004	- 2.08	- 2.08	*	98 [†]
Kennewick	530050002	1.37	+ 1.86	*	83
Spokane	530630021	- 4.59	- 4.59	*	99 [‡]
Yakima	530770009	- 4.59	- 4.59	- 1.32	97
* No evaluation performed during the quarter. † Site discontinued on 8/13 for move to alternate location. ‡ Monitor down for extended period due to roof repairs. Completeness in AQS = 30%.					

Manual Data

Manual data refers to filter-based monitoring methods which require an operator to physically install and retrieve sample filters. Particulate matter is collected on a sample filter over a 24-hour period. After sampling has been completed sample filters are collected by the operator and sent to the Manchester laboratory for gravimetric analysis. Depending on the method used at the monitoring site, the instrument is designed to selectively collect particulate matter at a specific flow rate on scheduled days.

One-Point Flow Rate Bias Estimate (Signed Bias)

Manual data monitoring methods require accurate flow rate measurements in order to accurately determine pollutant concentrations. Particulate matter concentrations are calculated by the mass of the sample on a filter divided by the volume of air. The volume of air is calculated by the flow rate of the instrument over the elapsed sampling time. Instruments are calibrated to operate at a designed flow rate. Differences in flow rates affect actual concentrations. Figure 1 illustrates how a 4 percent difference in flow rate impacts the actual concentration of a PM_{2.5} sample.

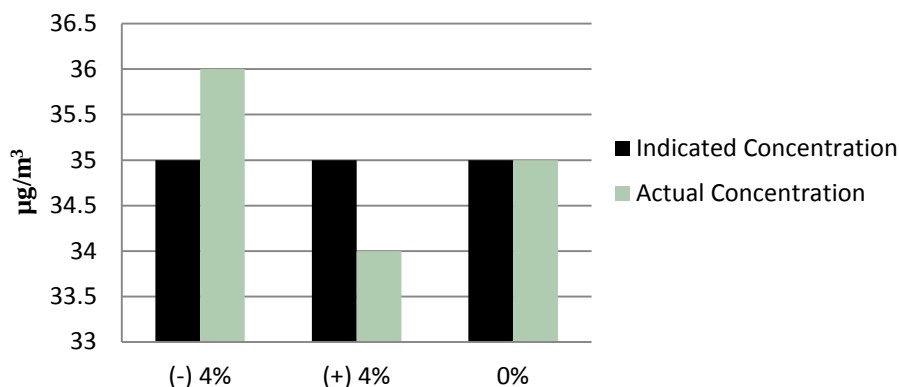


Figure 1. Graph illustrating how flows impact actual concentrations

Instrument flow rates can fluctuate over time. Therefore, a one-point flow rate verification (QC check) on the instrument is required every 30 days. The objective of the check is to measure the true flow rate of the instrument using NIST-traceable standards while recording the indicated flow rate of the instrument. The difference between the two is calculated (in percentage) to determine how “true” the indicated flow is. A positive (+) bias indicates that the instrument flow rate over time is operating above the actual (true) value. A negative (-) bias represents the instrument's flow rate is below the actual value. A “±” symbol represents the instrument “straddles the line” and is neither positively nor negatively biased.

One-Point QC Precision Estimate for Particulate Pollutants (% D)

Monthly QC checks are performed on the instrument by monitoring personnel. The difference between the actual flow and the indicated instrument flow is calculated, recorded, and submitted into the AQS.

Semi-Annual Flow Rate Audits (Audit % D)

In addition to monthly QC checks, an independent flow rate check is performed by QA personnel on a semi-annual basis. The objective of the auditor is to measure the actual flow rate of the instrument using independent NIST traceable standards while recording the indicated flow rate of the instrument. The deviation between the two flows is then calculated and submitted to the AQS.

Fine Particulate Matter (PM_{2.5} FRM - Daily)

The MQO for the measurement of PM_{2.5} using FRM method sampling is that bias, precision (% D), and performance evaluation results (Audit % D) be within ± 4 percent.

Table 13. DQI Results for FRM PM _{2.5} Samplers in Percentage					
Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Seattle, BH	530330080	*	*	- 1.01	97
Spokane	530630021	*	*	*	50 ^{†‡}
Tacoma	530530029	*	*	*	100
Tacoma (collocated)	530530029	*	*	*	100
Yakima	530770009	*	*	2.52	100
* No evaluation performed during the quarter. † Monitor down for extended period due to roof repairs. Completeness in AQS = 27%. ‡ Operator error.					

Particulate Matter (PM₁₀ FRM - Daily)

The MQO for the measurement of PM₁₀ using the high volume manual method sampler is that bias and precision (% D) be within ± 10 percent. The performance evaluation results (Audit % D) must be within ± 10 percent.

Table 14. DQI Results for Manual Method PM ₁₀ in Percentage						
Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data	Comments
Yakima	530770009	- 0.17	- 0.17	*	100	Hi Volume
* No evaluation performed during the quarter.						

Precision Estimate for Manual and Continuous Collocated Samples ($PM_{2.5}$, PM_{10})

Precision for manual and automated particulate method sampling is estimated using collocated sampling. Unlike the gaseous criteria pollutants where one can use a standard of a known concentration to estimate instrument precision, duplicate measurements are made on-site for comparison. The precision (CV%) must be within ± 10 percent for the FRM and TEOM.

Table 15. Precision Estimates for Collocated Samplers in Percentage			
Location	Method-Instrument	AQS Number	CV %
Marysville	181-TEOM 8500	530611007	6.16
Tacoma	118-FRM $PM_{2.5}$	530530029	22.9
Yakima	063- PM_{10}	530770009	*
Seattle, BH	127- PM_{10} Coarse	530330080	*
* No collocation for monitoring method.			

 $PM_{2.5}$ Chemical Speciation Network

The Chemical Speciation Network (CSN) is a national network of sites used to determine, over a period of several years, trends in concentration levels of selected ions, metals, carbon species, and organic compounds in $PM_{2.5}$. Flow checks are performed by station operators every 30 days and submitted to a national repository contracted by OAQPS.

In addition to monthly QC checks, an independent flow rate audit is performed by QA personnel on a semi-annual basis. The primary objective of the audit is to measure the true flow rate of the instrument using independent, NIST-traceable, standards while recording the indicated flow rate of the instrument. The deviation between the two flows is calculated. The MQO for the STN is that the results be within ± 10 percent. Note that the Beacon Hill station is equipped with a Super SASS sampler that has two extra flow channels.

Table 16. Audit Results for Speciation Samplers in Percentage						
Location	AQS Number	SASS CH 1 Audit % D	SASS CH 2 Audit % D	SASS CH 3 Audit % D	SASS CH 4 Audit % D	URG Audit % D
Seattle 10th & Weller	530330030	*	*			*
Seattle, BH	530330080	- 4.15	- 4.96	- 4.55	- 5.98	2.70
Tacoma	530530029	*	*			*
Yakima	530770009	- 3.50	0.44			- 9.10

Meteorological Data

To ensure data of sufficient quality for modeling applications and permitting use, EPA guidelines for continuous monitoring for Prevention of Significant Deterioration (PSD) are followed for wind speed (WS), wind direction (WD), ambient temperature, ambient pressure (PA) and relative humidity (RH).

Table 17. Data Capture for Meteorological Parameters						
Location	AQS Number	WS	WD	AT	PA	RH
Cheeka Peak	530090013	98	98	98	98	99
Colville	530650004	98	98	98	---	---
Enumclaw	530330023	99	99	99	---	---
Kennewick	530050002	99	99	99	---	---
North Bend	530330017	100	100	99	---	---
Omak	530470013	100	100	100	---	---
Seattle, 10th & Weller	530330030	99	99	99	---	---
Seattle, BH	530330080	93	93	93	89	93
Spokane	530630021	100*	100*	100*	---	---
Tacoma	530531016	99	99	99	---	---
Toppenish	530770015	97	97	97	---	---
Vancouver Blairmont	530110011	99	99	99	---	---
Wenatchee	530070011	96	96	96	---	---
White Swan	530770016	99	99	99	---	---
* Monitor down for extended period due to roof repairs. Completeness in AQS = 17%.						

Washington Air Quality Advisory Data

Light Scattering of Fine Particulates (Nephelometer)

The AQP uses a large network of instruments to report PM_{2.5} air pollution information to the public in near “real time” via its Washington Air Quality Advisory (WAQA) that can be found on its public website. The majority of these instruments (nephelometers) measure light scattering of particulates, not PM_{2.5} directly. Ecology and its partners follow EPA guidance to use nephelometers to report “FRM-like” PM_{2.5} data. Because nephelometers are not a Federal Reference or Federal Equivalent Method (FRM/FEM), PM_{2.5} data collected using nephelometers cannot be used for NAAQS compliance determinations. The data are displayed in “near real time” on Ecology and EPA websites for public information.

Table 18. Completeness Results for Nephelometers

Location	AQS Number	% Valid Data
Aberdeen	530272002	99
Bellevue	530330037	99
Cheeka Peak	530090013	98
Chehalis	530410004	99
Clarkston	530030004	27*
Colville	530650004	33*
Dayton	530130002	99
Ellensburg	530370002	99
Kennewick	530050002	99
Lacey	530670013	74†
LaCrosse	530750005	99
Lake Forest Park	530330024	98
Leavenworth	530070010	99
Longview	530150015	99
Mesa	530210002	99
Moses Lake	530251002	98
Mount Vernon	530570015	66*
Neah Bay	530090015	95
North Bend	530330017	99
Omak	530470013	93
Oroville (mobile)		99
Port Angeles	530090009	100
Pt. Townsend	530310003	82
Pullman	530750003	19*
Puyallup, 128th Ave.	530531018	98
Ritzville	530010003	99
Rosalia	530750006	99
Seattle, South Park	530331011	97
Shelton	530450007	99
Spokane, Monroe	530630047	99

Table 18. Completeness Results for Nephelometers

Location	AQS Number	% Valid Data
Tacoma, Alexander Ave.	530530031	56*
Taholah	530270011	95
Toppenish	530770015	91
Twisp	530470009	91
Walla Walla	530710005	99
Wellpinit	530650002	99
White Swan	530770016	96
Winthrop	530470010	52*
Yacolt	530110022	86

* Failed QC checks.

† Equipment failure.

Note: No QA evaluations are performed on nephelometers. The quality of the data is not assessed.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

January 25, 2016

Cullen Stephenson, Manager
Air Quality Program, Technical Services Section
Washington State Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

RE: Technical Assessment of the Ecology Air Quality Program

Dear Mr. Stephenson,

Recently the Office of Environmental Assessment (OEA) staff (Chris Hall) completed a Technical Systems Assessment (TSA) of the WA Department of Ecology Air Quality Program (Ecology). The objectives of this assessment were to determine (1) the status and effectiveness of the implementation of the approved Air Program Quality Assurance Project Plan (QAPP), and the associated Standard Operating Procedures (SOPs), and (2) the conformance of Ecology's Air Program quality system to 40 CFR Parts 50 & 58.

This year's TSA focused on the Manchester gravimetric laboratory and a subset of field monitoring sites, as operated by Ecology and the WA local air agencies. For the PM filter laboratory we were pleased to find that it had been moved to a dedicated indoor location within the main complex in 2013.

Enclosed with this letter is the TSA report which provides the assessment findings and observations, as well as our recommendations. Based on the gravity of the findings from this assessment, we are requesting that a corrective action plan be developed and submitted to Region 10 within 30 days of receipt of this letter. The corrective action plan should discuss the direct actions that Ecology will take or has taken to address each of these findings. If the action to be taken has not occurred then Ecology should provide a timeline for when the action will be completed.

In addition to performing this TSA of your air program, EPA Region 10 has also conducted multiple performance audits within your network of ambient air monitors in CY2015. This includes:

- PM_{2.5} collocation audits at the Seattle-Duwamish, Wenatchee, and Yakima sites.
- Ozone through-the-probe audits at your Anacortes, Mt. Rainier, and Yelm sites.
- CO and NO/NO₂/NO_x through-the-probe audits at your Seattle near road site.

Results of these audits have been or will be made available to your air quality staff as they become available.

Please call Chris Hall if you have any questions or concerns regarding this assessment. Chris can be contacted at (206) 553-0521 or hall.christopher@epa.gov. I can be reached at (206) 553-6985 or islam.mahbubul@epa.gov.

Sincerely,

/s/

Mahbubul Islam, Manager
Office of Environmental Assessment

Enclosure

cc: Joel Bird, WDOE
William Kammin, WDOE
Stuart Magoon, WDOE
Sean Lundblad, WDOE
Donald Brown, EPA/OEA
Chris Hall, EPA/OEA
Keith Rose, EPA/OAWT

I. Introduction

Pursuant to U.S. EPA Region 10 responsibility to oversee and assess the implementation of EPA-funded Air Monitoring programs (40 CFR Parts 50 and 58), the Office of Environmental Assessment (OEA) Quality Staff conducted a Technical Systems Assessment of the Washington State Department of Ecology's (Ecology) quality system.

II. Objective

The primary objectives of the Technical Systems Assessment were to address:

- Conformance of the Ecology quality system to their Air Program Quality Assurance Project Plan and 40 CFR Parts 50 & 58
- Suitability and effectiveness of the practices implemented by Ecology through their Air Program Quality Assurance Project Plan and associated Standard Operating Procedures.

III. Approach

The assessment was conducted to review the Quality Assurance (QA) procedures utilized to ensure that data of known and documented quality are being generated. The QA practices and procedures set forth in the Air Program Quality Assurance Project Plan (QAPP), supporting Standard Operating Procedures (SOP) and other supporting QA documents were used as the basis for this assessment. Review of quality reports, documentation, and databases were used to evaluate the implementation and conformance to the Air Program QAPP, as well as 40 CFR Parts 50 & 58 requirements.

IV. Assessment Results

This report contains the findings of fact on the implementation and effectiveness of the Ecology air monitoring program as defined by their Air Program QAPP.

Documents Reviewed:

- 1) Ecology Air Monitoring QA Plan (Apr 2010).
- 2) TEOM SOP
- 3) GLIMS lab records, 2011-15
- 4) Lab and field filter blank records, 2011-15.
- 5) Manchester Lab QAP #720032, 4/19/2014.
- 6) Gravimetric lab SOP #710078, 10/12/2015
- 7) 2013-15 EPA AQS reports (AMP250, 255, 350, 450, and 480).

This report focuses on those areas in Ecology operations that in the opinion of the review team merit attention to ensure that Ecology continues to generate environmental data of known and documented quality.

For the purposes of this report, assessment results are classified as follows:

- **Finding** – An assessment conclusion that identifies deficiencies in implementing the Quality Systems.
- **Observation** – An opportunity for operational improvement (a non-critical discrepancy where no corrective action is required) or a noteworthy practice of benefit to the organization.
- **Recommendation** – An opportunity for operational improvement (a non-critical discrepancy where no corrective action is required) or a noteworthy practice of benefit to the organization.
- **Comment** – An opinion expressed by the review team that is considered to be a best practice. It is usually offered to help the organization address a corrective action and develop a plan for that action.

Finding #1: The gravimetric lab personnel have not been fully verifying laboratory conditions prior to each weighing session.

Comment: 40 CFR Part 50, App. L sets temperature and humidity control requirements that must be met for the 24 hour period prior to the commencement of a weighing event. The Ecology laboratory technician had only been verifying current conditions at the beginning and end of each weighing session. The computer display for these two parameters was only providing real-time, short-term averaged readouts at the time of the audit.

Recommendation: The technician should have knowledge of the prior 24 hour conditions and a weighing event should not be started unless temperature and humidity requirements are met. This information should be made readily available to the lab technician.

Finding #2: Internal audits of the gravimetric lab have not been performed.

Comment: Section 7.2 of the Laboratory Quality Assurance Manual (#720032, 4/19/2014) requires the QAC to audit each laboratory unit annually.

Recommendation: The QAC should commence an audit of the gravimetric program in the near term and annually thereafter to conform to QAM requirements. R10 recommends that the QC staff from Lacey take part in this assessment.

Finding #3: The SOP protocol for determining post-exposure weighing timeframes does not conform to the requirements of 40 CFR Part 50, App. L.

Comment: EPA has recently published a technical note on AMTIC titled '[Holding Time Requirements for PM2.5 Filter Samples](#)' which notes that the sliding scale protocol specified in SOP #710078 is no longer valid. This technical note describes the correct interpretation for determining post-exposure weighing timeframes.

Recommendation: Update §3.1.6 of SOP #710078 to conform to App. L requirements.

Finding #4: Minimum spacing requirements are not being met at the Seattle near road site for CO, NO₂, and PM_{2.5} speciation.

Comment: The inlets for the CO and NO₂ gas analyzers need to be at least 1 meter (3.28 feet) horizontally separated from the shelter wall – currently the separation is approximately 0.6 meter (2 feet). Further, the inlet for the URG speciation sampler should be between 2-15 meters off the ground to conform to CSN QAPP specifications – currently the inlet for this instrument is < 2 meters.

Recommendation: In addition to conform to the spacing requirements noted, R10 recommends that Ecology move the SASS and URG samplers to the roof of the shelter to allow for unrestricted airflow in all directions.

Finding #5: SOPs have not been developed for trace gas monitoring.

Comment: Data quality for the CO, SO₂ and NO_y instruments can be called into question without having the operational procedures documented, approved and followed.

Recommendation: Ecology should develop and approve these and other needed SOPs as soon as possible.

Finding #6: The Ellensburg TEOM shelter temperature was outside the acceptable range as required by SOP #00-02-007.

Comment: From a review of temperature data back to 11/01/2015 at this site frequent hourly excursions outside the Ecology-approved SOP required range of 15-22°C (59.0-71.6°F) were found. The hourly averages noted by the auditor were from 12.8-28.3°C (55-83°F). Section 4.1 of the FDMS TEOM SOP states that at no time should the shelter temperature deviate outside the 15-22°C range, which if correctly interpreted, suggests that this TEOM shelter or its temperature control system is not optimized to meet this SOP requirement.

Recommendation: A review of shelter temperatures for all outdoor shelters should be conducted to determine if shelter temperature requirements are not being met for this site. If so, then a review of shelter temperatures for other similar monitors/sites in the Ecology network should be conducted to determine if this issue is prevalent with the network.

Observation #1: The historic quarterly T/%RH control charts developed by the filter lab technician for management review used limited data and therefore provided misleading information.

Comment: Historically only instantaneous readings at the start and end of each weighing session was been used to generate the filter lab environmental control charts.

Recommendation: To fully understand whether the filter lab is meeting control requirements the full dataset of 2 minute should be used to develop control charts.

Observation #2: A backup lab technician is essential to cover the filter lab when the primary technician is unavailable.

Comment: It was unclear during the onsite review that a backup technician would be identified. Subsequent conversations have indicated that a person would be identified but we have not been able to confirm that this is the case.

Recommendation: We recommend that Ecology designate and train a backup lab technician as soon as possible.

Observation #3: The gravimetric lab SOP needs to be expanded to include necessary procedures.

Comment: An unofficial procedural 'cheat' sheet was provided to the EPA auditor that contains procedural steps that we believe should be contained within an Ecology-approved SOP. For example, the lab technician process for verifying Sampler Run Data sheets should be detailed within an approved SOP.

Recommendation: We would recommend that the Ecology update SOP #710078 (or develop new SOPs) to include all relevant processes needed to be performed by staff associated with the filter lab.

Observation #4: The cleaning protocol within the gravimetric lab needs to be more thorough.

Comment: A layer of dust was observed on the top pan in the equilibration rack located next to the microbalance. The analyst confirmed that cleaning this top pan was not part of wipe down protocol. Though the auditor did not verify, it was likely that a similar layer of dust would have been found on top of the cupboards as well.

Recommendation: Ensure cleaning of the filter lab is conducted on a regular basis and includes wiping down all surfaces in the room.

Observation #5:

The loading of filter cassette magazines should not occur in the gravimetric chamber.

Comment: This was the protocol for the prior lab technician.

Recommendation: Due to the likelihood that the filter cassettes may be contaminated during field deployment, we would recommend that their loading occur outside the filter weighing room.

Observation #6: Protocols for assessing laboratory contamination should be strengthened.

Comment: Lab blank filters are stored in a refrigerator located in another room and only brought in the weighing room when the tare and exposed filters are being equilibrated and weighed.

Recommendation: R10 recommends that a subset of filters be designated as stationary lab blanks (i.e., not associated with any field filter batch) and kept continually within the gravimetric chamber to allow for the long-term contamination characterization. Updated results of lab blank weighing should be charted and reviewed by both the lab technician and management.

Observation #7: The tare filter conditioning protocol is unclear.

Comment: Per SOP #710078 “all tare filters are to be pre-conditioned” but the initial conditioning time is not specified. A minimum of 24 hour equilibration time is specified in Section 8.2.5 of 40 CFR Part 50, App. L, but a longer time may be necessary. Section 10.1 of SOP #710078 appears to indicate that the initial tare weighing occurs directly after filter inspection.

Recommendation: EPA would recommend that periodically lot blanks be assessed to verify the appropriate pre-conditioning equilibration time. This could occur annually when filters are received from EPA/OAQPS. Once determined, this pre-conditioning time should be observed at all times and should be addressed within the lab SOP (minimum 24 hours).

Observation #8: Entry access for the gravimetric chamber should be strengthened.

Comment: The prior lab technician stated that she did not have knowledge of who had access rights to the chamber and if/when other staff or contractors had entered it. No entry tracking records are kept.

Recommendation: Access to the chamber should be tracked and recorded where limited access should be enforced to reduce the potential for contamination.

V. Completion of the Assessment Process

Region 10 is requesting that Corrective Action Plan be submitted to ensure that the findings provided in this report are adequately addressed by Ecology in a timely manner.



Executive Memorandum

Date of Release: March 2, 2016
Date of Consideration: March 10, 2016
To: Board of Directors
From: Office of the Executive Division *Paul Edel*
Subject: Executive Division Report for January and February, 2016

WOOD STOVE CHANGE-OUT PROGRAM

- The change out program has completed 10 low income, 4 rebates change outs along with 3 bounties', there are 13 low income, 3 rebates and 3 bounty's all in progress. There are 8 low income customers scheduled for qualification appointments. We continue to seek additional funding for the wood stove change out program.

EDUCATION AND OUTREACH PROGRAMS

- Two air quality presentations scheduled for March, on the 18th at Sunnyside High School and on the 25th at West Valley High School.

OTHER INFORMATION

- Northwest Opacity Certification has started the spring smoke school with 10 events both public and private taking place at various locations in Washington and Oregon.

AGENDA ITEM NO. 12