

**PTSD**  
**Contractor: Perrin Quarles**  
**Contract # 08-765**

FUNDING FISCAL YEAR	FY 08/09		
TERM	04/14/09-06/30/10		
PCA	72720		
LINE ITEM/OBJECT	445		TOTAL
DESCRIPTION	Proprietary S/W		

Contract \$	\$	249,900.00	\$	249,900.00
	\$		\$	
	\$		\$	

Total, Contract	\$	249,900.00	\$	-	\$	-	\$	249,900.00
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Payments to Contractor:

Inv. #	Inv. Date	Ser Per			C/S
101	4/30/2009	04/04-04/23/09	1,451.90	1,451.90	C080885,
102	5/29/2009	04/24-05/23/09	30,491.84	30,491.84	C080885
103	6/30/2009	05/24-06/23/09	21,815.53	21,815.53	C090017
104	7/31/2009	6/24/09 to 7/23/09	13,076.60	13,076.60	C090064
105	9/8/2009	7/24 - 8/30/09	10,833.57	10,833.57	C090144
106	9/30/2009	8/24 - 9/23/09	16,739.69	16,739.69	C090226
107	10/30/2009	9-24 - 10/23/09	12,437.54	12,437.54	C090303

(6)

Total, Payments	\$	106,846.67	\$	-	\$	-	\$	106,846.67
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Balance Available to Pay Contractor	\$	143,053.33	\$	-	\$	-	\$	143,053.33
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Balance Must Be Spent By:                      6/30/2011                      6/30/2012                      6/30/2013

**Notes:**

Contract Manager: Webster Tasat

17

C080885

# PQA

PERRIN QUARLES ASSOCIATES

KL  
okay to pay

April 30, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

RE:

Agreement No. 08-765  
Federal ID No. 64-1102354  
PQA Project No. 1615  
April 14, 2009 - April 23, 2009

INVOICE NO. 101

INVOICE

Labor:	Hourly Rate	Current Hours	Current Cost	Cumulative Cost
Project Manager	\$97.76	4.5	\$439.92	\$439.92
IT Deployment Specialist II	\$63.36	3.0	\$190.08	\$190.08
Environmental Analyst II	\$66.56	11.9	\$792.06	\$792.06
Contract Administrator	\$73.84	0.1	\$7.38	\$7.38
Assistant Contract Administrator	\$56.16	0.4	\$22.46	\$22.46
<b>Total Labor</b>		<b>19.9</b>	<b>\$1,451.90</b>	<b>\$1,451.90</b>
<b>Other Direct Costs:</b>				
Postage			\$0.00	\$0.00
Telephone			\$0.00	\$0.00
Software			\$0.00	\$0.00
Application Service Provider			\$0.00	\$0.00
<b>Total Other Direct Costs</b>			<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Cost:</b>			<b>\$1,451.90</b>	<b>\$1,451.90</b>

Thank you for your remittance.

Perrin Quarles

# PQA

PERRIN QUARLES ASSOCIATES

April 30, 2009

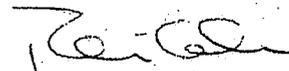
Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

Dear Accounts Payable,

Enclosed is PQA's Invoice No. 101 for Agreement Number 08-765, for work performed from April 14, 2009 through April 23, 2009.

If you have any questions, please give me or Cate Garris a call at (434) 979-3700, extension 114 or 138, respectively.

Sincerely,



Perrin Quarles

JPQ/cer  
Enclosure

# PQA

PERRIN QUARLES ASSOCIATES

*Co 80885*

May 29, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

RCVD JUN 11 2009

RE:

Agreement No. ~~08-765~~  
Federal ID No. 54-1102354  
PQA Project No. 1615  
April 24, 2009 - May 23, 2009

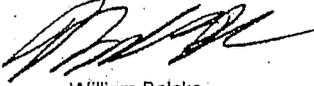
*ok per  
K. Lutter  
6/11/09*

INVOICE NO. 102

INVOICE

Labor:	Hourly Rate	Current Hours	Current Cost	Cumulative Cost
Senior Consultant II	\$165.36	0.5	\$82.68	\$82.68
Project Manager	\$97.76	25.0	\$2,444.00	\$2,883.92
Senior Programmer/Analyst II	\$99.84	81.5	\$8,136.96	\$8,136.96
IT Deployment Specialist II	\$63.36	16.5	\$1,045.44	\$1,235.52
Senior Environmental Analyst I	\$89.44	91.6	\$8,192.70	\$8,192.70
Environmental Analyst II	\$66.56	110.6	\$7,361.54	\$8,153.60
Contract Manager	\$139.80	0.3	\$41.94	\$41.94
Senior Contract Administrator	\$81.43	1.5	\$122.15	\$122.15
Contract Administrator	\$73.84	0.3	\$22.15	\$29.53
Assistant Contract Administrator	\$56.16	1.9	\$106.70	\$129.16
<b>Total Labor</b>		<b>329.7</b>	<b>\$27,556.26</b>	<b>\$29,008.16</b>
<b>Other Direct Costs:</b>				
Postage			\$9.60	\$9.60
Telephone			\$0.98	\$0.98
Software			\$0.00	\$0.00
Application Service Provider			\$2,925.00	\$2,925.00
<b>Total Other Direct Costs</b>			<b>\$2,935.58</b>	<b>\$2,935.58</b>
<b>Total Cost:</b>			<b>\$30,491.84</b>	<b>\$31,943.74</b>

Thank you for your remittance.

  
William Balcke



PERRIN QUARLES ASSOCIATES

May 29, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

Dear Accounts Payable,

Enclosed is PQA's Invoice No. 102 for Agreement Number 08-765, for work performed from April 24, 2009 through May 23, 2009.

If you have any questions, please give me or Cate Garris a call at (434) 979-3700, extension 117 or 138, respectively.

Sincerely,

A handwritten signature in black ink, appearing to read 'William Balcke', written in a cursive style.

William Balcke

WWB/cer  
Enclosure



CO90017

June 30, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

RE: Agreement No. 08-765  
Federal ID No. 54-1102354  
PQA Project No. 1615  
May 24, 2009 - June 23, 2009

INVOICE NO. 103.

*Approval*  
*W. Anderson*

INVOICE

Labor:	Hourly Rate	Current Hours	Current Cost	Cumulative Cost
Senior Consultant II	\$165.36	0.0	\$0.00	\$82.68
Project Manager	\$97.76	16.0	\$1,564.16	\$4,448.08
Senior Technical Lead	\$113.76	2.5	\$284.40	\$284.40
Senior Programmer/Analyst II	\$99.84	12.5	\$1,248.00	\$9,384.96
Programmer/Analyst II	\$85.28	1.5	\$127.92	\$127.92
IT Deployment Specialist II	\$63.36	33.5	\$2,122.56	\$3,358.08
Senior Environmental Analyst I	\$89.44	63.8	\$5,706.27	\$13,898.97
Environmental Analyst II	\$66.56	113.6	\$7,561.22	\$15,714.82
Contract Manager	\$139.80	0.7	\$97.86	\$139.80
Senior Contract Administrator	\$81.43	0.9	\$73.29	\$195.44
Contract Administrator	\$73.84	0.1	\$7.38	\$36.91
Assistant Contract Administrator	\$56.16	0.8	\$44.93	\$174.09
Communication Specialist I	\$50.96	0.5	\$25.48	\$25.48
<b>Total Labor</b>		<b>246.4</b>	<b>\$18,863.47</b>	<b>\$47,871.63</b>
<b>Other Direct Costs:</b>				
Postage			\$9.04	\$18.64
Telephone			\$4.94	\$5.92
GoTo Meetings			\$13.08	\$13.08
Application Service Provider			\$2,925.00	\$5,850.00
<b>Total Other Direct Costs</b>			<b>\$2,952.06</b>	<b>\$5,887.64</b>
			<b>\$21,815.53</b>	<b>\$53,759.27</b>

Total Cost has been checked against our records and found to be the original claim presented for payment, and payment has not been previously made. We have recorded this payment to prevent a duplicate payment later.

Thank you for your remittance.

PP  
Accounting Officer

*Re-Coll*  
Perrin Quarles



RCVD JUL 2 2009

June 30, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

Dear Accounts Payable,

Enclosed is PQA's Invoice No. 103 for Agreement Number 08-765, for work performed from May 24, 2009 through June 23, 2009.

If you have any questions, please give me or Cate Garris a call at (434) 979-3700, extension 114 or 138, respectively.

Sincerely,

Perrin Quarles

JPQ/cer  
Enclosure

**Harman, Guy@ARB**

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**From:** Lutter, Karen@ARB  
**Sent:** Monday, July 13, 2009 10:03 AM  
**To:** Harman, Guy@ARB  
**Subject:** RE: Invoice Approval: PQA 08-765 #103

Hello Guy,

I approve of the attached invoice charges.

Thanks.

Karen Lutter

-----Original Message-----

**From:** Harman, Guy@ARB  
**Sent:** Friday, July 03, 2009 10:18 AM  
**To:** Lutter, Karen@ARB  
**Subject:** Invoice Approval: PQA 08-765 #103

If charges are correct please approve attached invoice by 07/10/09, via e-mail.

Thank You

gh

Guy Harman  
Accountant I (Specialist)  
California Air Resources Board  
Phone (916) 322-9390  
Fax (916) 322-9612

-----Original Message-----

**From:** sharpcopier@arb.ca.gov [mailto:sharpcopier@arb.ca.gov]  
**Sent:** Friday, July 03, 2009 10:05 AM  
**To:** Harman, Guy@ARB  
**Subject:** Scanned image from Accounting Sharp Copier 20th Floor

DEVICE NAME: Accounting Sharp Copier 20th Floor  
DEVICE MODEL: SHARP AR-M550U  
LOCATION: 20th floor-South Side-Center

FILE FORMAT: PDF MMR (G4)  
RESOLUTION: 300dpi x 300dpi

Attached file is scanned image in PDF format.  
This file can be read by Adobe Acrobat Reader.  
The reader can be downloaded from the following URL:

<http://www.adobe.com/>



PERRIN QUARLES ASSOCIATES

July 31, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

RECD AUG 3 2009

RE: Agreement No. 08-765 - 01  
Federal ID No. 54-1102354  
PQA Project No. 1615  
June 24, 2009 - July 23, 2009

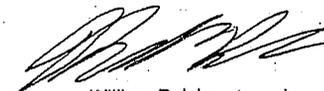
INVOICE NO. 104

INVOICE

Labor:	Hourly Rate	Current Hours	Current Cost	Cumulative Cost
Senior Consultant II	\$165.36	0.5	\$82.68	\$165.36
Senior Consultant I	\$99.84	1.0	\$99.84	\$99.84
Project Manager	\$97.76	15.5	\$1,515.28	\$5,963.36
Senior Technical Lead	\$113.76	1.5	\$170.64	\$455.04
Senior Programmer/Analyst II	\$99.84	0.0	\$0.00	\$9,384.96
Programmer/Analyst II	\$85.28	0.0	\$0.00	\$127.92
IT Deployment Specialist II	\$63.36	10.0	\$633.60	\$3,991.68
Quality Assurance Analyst II	\$68.64	10.0	\$686.40	\$686.40
Senior Environmental Analyst I	\$89.44	8.0	\$715.52	\$14,614.49
Environmental Analyst II	\$66.56	88.1	\$5,863.94	\$21,578.76
Contract Manager	\$139.80	0.9	\$125.82	\$265.62
Senior Contract Administrator	\$81.43	2.0	\$162.86	\$358.30
Contract Administrator	\$73.84	0.0	\$0.00	\$36.91
Assistant Contract Administrator	\$56.16	0.9	\$50.54	\$224.63
Communication Specialist I	\$50.96	0.0	\$0.00	\$25.48
<b>Total Labor</b>		<b>138.4</b>	<b>\$10,107.12</b>	<b>\$57,978.75</b>
<b>Other Direct Costs:</b>				
Postage			\$9.04	\$27.68
Telephone			\$0.78	\$6.70
GoTo Meetings			\$34.66	\$47.74
Application Service Provider			\$2,925.00	\$8,775.00
<b>Total Other Direct Costs</b>			<b>\$2,969.48</b>	<b>\$8,857.12</b>
<b>Total Cost:</b>			<b>\$13,076.60</b>	<b>\$66,835.87</b>

*Approved  
Attached*

Thank you for your remittance.



William Balcke



RCVD AUG 3 2009

July 31, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

Dear Accounts Payable,

Enclosed is PQA's Invoice No. 104 for Agreement Number 08-765, for work performed from June 24, 2009 through July 23, 2009.

If you have any questions, please contact Cate Garris at (434) 979-3700, extension 138.

Sincerely,

William Balcke

WWB/cer  
Enclosure

Harman, Guy@ARB

---

From: Lutter, Karen@ARB  
Sent: Tuesday, August 04, 2009 2:27 PM  
To: Harman, Guy@ARB  
Subject: RE: Invoice Approval: PQA 08-765 #104

Hello,

I approve of these invoice charges. Thankyou.

Karen Lutter

-----Original Message-----

From: Harman, Guy@ARB  
Sent: Tuesday, August 04, 2009 2:05 PM  
To: Lutter, Karen@ARB  
Subject: Invoice Approval: PQA 08-765 #104

If charges are correct please approve attached invoice by 08/11/09 via e-mail.

Thank You.

guy

Guy Harman  
Accountant I (Specialist)  
California Air Resources Board  
Phone (916) 322-9390  
Fax (916) 322-9612

-----Original Message-----

From: sharpcopier@arb.ca.gov [mailto:sharpcopier@arb.ca.gov]  
Sent: Tuesday, August 04, 2009 2:03 PM  
To: Harman, Guy@ARB  
Subject: Scanned image from Accounting Sharp Copier 20th Floor

DEVICE NAME: Accounting Sharp Copier 20th Floor  
DEVICE MODEL: SHARP AR-M550U  
LOCATION: 20th floor-South Side-Center

FILE FORMAT: PDF MMR (G4)  
RESOLUTION: 300dpi x 300dpi

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This file can be read by Adobe Acrobat Reader.  
The reader can be downloaded from the following URL:

<http://www.adobe.com/>



PQA  
PERRIN QUARLES ASSOCIATES

August 31, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

RE:

Agreement No. 08-765 of  
Federal ID No. 54-1102354  
PQA Project No. 1615  
July 24, 2009 - August 23, 2009

INVOICE NO. 105

*Approved  
withheld*

INVOICE

Labor:	Hourly Rate	Current Hours	Current Cost	Cumulative Cost
Senior Consultant II	\$165.36	0.5	\$82.68	\$248.04
Senior Consultant I	\$99.84	0.0	\$0.00	\$99.84
Project Manager	\$97.76	3.0	\$293.28	\$6,256.64
Senior Technical Lead	\$113.76	1.0	\$113.76	\$568.80
Senior Programmer/Analyst II	\$99.84	0.0	\$0.00	\$9,384.96
Programmer/Analyst II	\$85.28	0.0	\$0.00	\$127.92
IT Deployment Specialist II	\$63.36	24.5	\$1,552.32	\$5,544.00
Quality Assurance Analyst II	\$68.64	2.5	\$171.60	\$858.00
Senior Environmental Analyst I	\$89.44	25.9	\$2,316.50	\$16,930.99
Environmental Analyst II	\$66.56	47.7	\$3,174.91	\$24,753.67
Contract Manager	\$139.80	0.1	\$13.98	\$279.60
Senior Contract Administrator	\$81.43	1.1	\$89.57	\$447.87
Contract Administrator	\$73.84	0.0	\$0.00	\$36.91
Assistant Contract Administrator	\$56.16	1.4	\$78.62	\$303.25
Communication Specialist I	\$50.96	0.0	\$0.00	\$25.48
<b>Total Labor</b>		<b>107.7</b>	<b>\$7,887.22</b>	<b>\$65,865.97</b>
<b>Other Direct Costs:</b>				
Postage			\$9.04	\$36.72
Telephone			\$1.26	\$7.96
GoTo Meetings			\$11.05	\$58.79
Application Service Provider			\$2,925.00	\$11,700.00
<b>Total Other Direct Costs</b>			<b>\$2,946.35</b>	<b>\$11,803.47</b>
<b>Total Cost:</b>			<b>\$10,833.57</b>	<b>\$77,669.44</b>

Thank you for your remittance.

*Perrin Quarles*  
Perrin Quarles



PERRIN QUARLES ASSOCIATES

RCVD SEP 1 2009

August 31, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

Dear Accounts Payable,

Enclosed is PQA's Invoice No. 105 for Agreement Number 08-765, for work performed from July 24, 2009 through August 23, 2009.

If you have any questions, please contact me at (434) 979-3700, extension 138.

Sincerely,

A handwritten signature in cursive script that reads 'Cate Garris'.

Cate Garris  
Senior Contracts Administrator

CBG/cer  
Enclosure

**Harman, Guy@ARB**

---

**From:** Lutter, Karen@ARB  
**Sent:** Wednesday, September 02, 2009 8:33 AM  
**To:** Harman, Guy@ARB  
**Subject:** RE: Invoice Approval: Perrin Quarles 08-765 #105r

I approve of this POA invoice.

Thanks.

Karen

-----Original Message-----

**From:** Harman, Guy@ARB  
**Sent:** Tuesday, September 01, 2009 4:15 PM  
**To:** Lutter, Karen@ARB  
**Subject:** Invoice Approval: Perrin Quarles 08-765 #105r

If charges are correct please approve attached invoice by 09/08/09 via e-mail.

Guy Harman

Accountant I (Specialist)  
California Air Resources Board  
Phone (916) 322-9390  
Fax (916) 322-9612

-----Original Message-----

**From:** sharpcopier@arb.ca.gov [mailto:sharpcopier@arb.ca.gov]  
**Sent:** Tuesday, September 01, 2009 4:06 PM  
**To:** Harman, Guy@ARB  
**Subject:** Scanned image from Accounting Sharp Copier 20th Floor

**DEVICE NAME:** Accounting Sharp Copier 20th Floor  
**DEVICE MODEL:** SHARP AR-M550U  
**LOCATION:** 20th floor-South Side-Center

**FILE FORMAT:** PDF MMR(G4)  
**RESOLUTION:** 300dpi x 300dpi

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The reader can be downloaded from the following URL:

<http://www.adobe.com/>

# PQA

PERRIN QUARLES ASSOCIATES

September 30, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

RE: Agreement No. 08-765  
Federal ID No. 54-1102354  
PQA Project No. 1615  
August 24, 2009 - September 23, 2009

INVOICE NO. 106

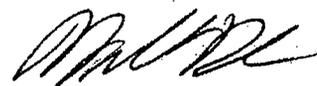
**INVOICE**

Labor:	Hourly Rate	Current Hours	Current Cost	Cumulative Cost
Senior Consultant II	\$165.36	0.5	\$82.68	\$330.72
Senior Consultant I	\$99.84	0.0	\$0.00	\$99.84
Project Manager	\$97.76	18.0	\$1,759.68	\$8,016.32
Senior Technical Lead	\$113.76	0.5	\$56.88	\$625.68
Senior Programmer/Analyst II	\$99.84	2.5	\$249.60	\$9,634.56
Programmer/Analyst II	\$85.28	0.0	\$0.00	\$127.92
IT Deployment Specialist II	\$63.36	14.0	\$887.04	\$6,431.04
Quality Assurance Analyst II	\$68.64	0.0	\$0.00	\$858.00
Senior Environmental Analyst I	\$89.44	46.3	\$4,141.07	\$21,072.06
Environmental Analyst II	\$66.56	96.0	\$6,389.76	\$31,143.43
Contract Manager	\$139.80	0.2	\$27.96	\$307.56
Senior Contract Administrator	\$81.43	1.7	\$138.43	\$586.30
Contract Administrator	\$73.84	0.0	\$0.00	\$36.91
Assistant Contract Administrator	\$56.16	1.2	\$67.39	\$370.64
Communication Specialist I	\$50.96	0.0	\$0.00	\$25.48
<b>Total Labor</b>		<b>180.9</b>	<b>\$13,800.49</b>	<b>\$79,666.46</b>
<b>Other Direct Costs:</b>				
Postage			\$9.04	\$45.76
Telephone			\$5.16	\$13.12
Multimedia Conferencing (GoTo Meeting)			\$0.00	\$58.79
Application Service Provider			\$2,925.00	\$14,625.00
<b>Total Other Direct Costs</b>			<b>\$2,939.20</b>	<b>\$14,742.67</b>
<b>Total Cost:</b>			<b>\$16,739.69</b>	<b>\$94,409.13</b>

*Approval*

*W. Balcke*

Thank you for your remittance.

  
William Balcke

**PQA**  
FERRIN QUARLES ASSOCIATES

*Invoice - Approved for Payment  
Karen Lutter 10-5-09  
ARB - PTSD  
(916) 322-8620*

September 30, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

Dear Accounts Payable,

Enclosed is PQA's Invoice No. 106 for Agreement Number 08-765, for work performed from August 24, 2009 through September 23, 2009.

If you have any questions, please contact me at (434) 979-3700, extension 138.

Sincerely,



Cate Garris  
Senior Contracts Administrator

CBG/ce  
Enclosure

# PQA

PERRIN QUARLES ASSOCIATES

October 30, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

RE:

Agreement No. 08-765-01  
Federal ID No. 54-1102354  
PQA Project No. 1615  
September 24, 2009 - October 23, 2009

INVOICE NO. 107

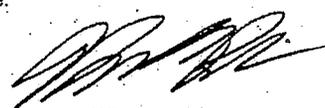
**INVOICE**

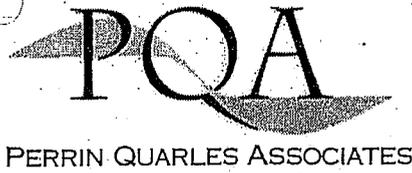
Labor:	Hourly Rate	Current Hours	Current Cost	Cumulative Cost
Senior Consultant II	\$165.36	0.6	\$99.22	\$429.94
Senior Consultant I	\$99.84	0.0	\$0.00	\$99.84
Project Manager	\$97.76	24.5	\$2,395.12	\$10,411.44
Senior Technical Lead	\$113.76	0.0	\$0.00	\$625.68
Senior Programmer/Analyst II	\$99.84	2.2	\$219.65	\$9,854.21
Programmer/Analyst II	\$85.28	0.0	\$0.00	\$127.92
IT Deployment Specialist II	\$63.36	8.5	\$538.56	\$6,969.60
Quality Assurance Analyst II	\$68.64	5.5	\$377.52	\$1,235.52
Senior Environmental Analyst I	\$89.44	8.5	\$760.24	\$21,832.30
Environmental Analyst II	\$66.56	69.5	\$4,625.92	\$35,769.35
Contract Manager	\$139.80	1.1	\$153.78	\$461.34
Senior Contract Administrator	\$81.43	2.7	\$219.86	\$806.16
Contract Administrator	\$73.84	0.1	\$7.38	\$44.29
Assistant Contract Administrator	\$56.16	1.6	\$89.86	\$460.50
Communication Specialist I	\$50.96	0.0	\$0.00	\$25.48
<b>Total Labor</b>		<b>124.8</b>	<b>\$9,487.11</b>	<b>\$89,153.57</b>
<b>Other Direct Costs:</b>				
Postage			\$9.04	\$54.80
Telephone			\$1.66	\$14.78
Multimedia Conferencing (GoTo.Meeting)			\$14.73	\$73.52
Application Service Provider			\$2,925.00	\$17,550.00
<b>Total Other Direct Costs</b>			<b>\$2,950.43</b>	<b>\$17,693.10</b>
<b>Total Cost:</b>			<b>\$12,437.54</b>	<b>\$106,846.67</b>

RCVD NOV 2 2009

*Approved  
attached*

Thank you for your remittance.

  
William Balcke



October 30, 2009

Air Resources Board  
Accounting Section  
1001 I Street  
Sacramento, CA 95812

Dear Accounts Payable,

RCVD NOV 2 2009

Enclosed is PQA's Invoice No. 107 for Agreement Number 08-765, for work performed from September 24, 2009 through October 23, 2009.

If you have any questions, please contact me at (434) 979-3700, extension 138.

Sincerely,

Cate Garris  
Senior Contracts Administrator

CBG/cer  
Enclosure

Approved 11/2/09

Karen Lutter

Karen Lutter - ARB PTSD

916-322-8620

**STANDARD AGREEMENT**

**FOR I.T. GOODS/SERVICES ONLY**

	PURCHASING AUTHORITY NUMBER <b>91-0909-ARB-HQ1</b>	REGISTRATION NUMBER AGREEMENT NUMBER <b>08-765</b>
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1. This Agreement is entered into between the State Agency and Contractor named below:  
STATE AGENCY'S NAME

**Air Resources Board** (hereafter called ARB or State)

CONTRACTOR'S NAME  
**Perrin Quarles Associates** (hereafter called PQA or Contractor)

2. The term of this Agreement is **April 14, 2009 through June 30, 2010**

3. The maximum amount of this Agreement is: **\$249,900.00**  
**TWO HUNDRED FORTY-NINE THOUSAND, NINE HUNDRED, AND 00/100s**

4. The parties agree to comply with the terms and conditions of the following attachments which are by this reference made a part of the Agreement:

- |   |          |
|---|----------|
| Exhibit A – Statement of Work                                   | 5 pages  |
| Exhibit A, Attachment 1 – Contractor's Proposal                 | 12 pages |
| Exhibit B – Budget Details and Payment Provisions               | 1 page   |
| Exhibit B, Attachment 1 – Time and Materials                    | 1 page   |
| Exhibit C* – General Provisions - GSPD-401T (04/12/07)          | Online*  |
| Exhibit D* – Information Technology Software Special Provisions | Online*  |

*Items shown with an Asterisk (\*), are hereby incorporated by reference and made part of this agreement as if attached hereto. These documents can be viewed at [www.pd.dqs.ca.gov/modellang/ModelContracts.htm](http://www.pd.dqs.ca.gov/modellang/ModelContracts.htm)*

**IN WITNESS WHEREOF**, this Agreement has been executed by the parties hereto.

<b>CONTRACTOR</b>	<b>CALIFORNIA</b> Department of General Services Use Only
<small>CONTRACTOR'S NAME (If other than an individual, state whether a corporation, partnership, etc.)</small> <b>Perrin Quarles Associates</b>	
<small>BY (Authorized Signature)</small> 	<small>DATE SIGNED</small> <b>4/14/09</b>
<small>PRINTED NAME AND TITLE OF PERSON SIGNING</small> <b>Perrin Quarles, President</b>	
<small>ADDRESS</small> <b>652 Peter Jefferson Parkway, Suite 300, Charlottesville, VA 22911</b>	
<b>STATE OF CALIFORNIA</b>	
<small>AGENCY NAME</small> <b>Air Resources Board</b>	
<small>BY (Authorized Signature)</small> 	<small>DATE SIGNED</small> <b>04/17/09</b>
<small>PRINTED NAME AND TITLE OF PERSON SIGNING</small> <b>Socorro Watkins, Chief, Business Management Branch</b>	
<small>ADDRESS</small> <b>P.O. Box 2815, Sacramento, California 95814</b>	
<b>Sharon Simmons Contract Services Section Manager Air Resources Board</b>	

*within our delegation  
referred above*  
 Exempt per  
 State Administrative Manual  
 § 1233.3.h

## EXHIBIT A Statement of Work

### Background

#### Regulatory Overview

The California Global Warming Solutions Act of 2006 (the Act) requires that the State's overall GHG emissions be reduced to 1990 levels by 2020. To accomplish this, an array of GHG emission reduction strategies is required. The tracking of GHG emissions at the facility level is an essential element for developing these emission reduction strategies as well as implementing other aspects of the Act, including, but not limited to: 1) developing a fee regulation for sources of greenhouse gas emissions necessary to support on-going implementation of the Act, and 2) gathering the necessary data for the development of a possible cap-and-trade program. To obtain comprehensive and accurate GHG emissions data for the purposes above, the Air Resources Board (ARB) is collecting emissions data from sources of GHG emissions through a program of mandatory emissions reporting.

Critical to the success of the mandatory reporting program is an automated emissions reporting system for facilities and/or entities to report their GHG emissions to the State. The system, as developed over the past year, includes a full complement of database infrastructure, reporting standards and requirements, and online data entry and tracking functionality. The mandatory reporting regulation (Title 17, §95100 to §95133, California Code of Regulations) and other supporting guidance documents serves as the basis for standardizing reported data and specifies the GHG emission reporting procedures standards, emission calculation methods, data items, and verification requirements.

#### Reporting Tool Description and Development Status

The *California Air Resources Board's Online Greenhouse Gas (GHG) Reporting Tool* (Reporting Tool) is an online emissions calculation and reporting system currently accessible by reporters through the California Air Resources Board's (ARB) website using appropriate registration and user identification procedures.

The system's architecture is based on the Emissions Allowance and Tracking System (EATS) with the Calculation, Reporting, and Verification Tool (CRAVe) component, which were developed by Perrin Quarles Associates, Inc. (PQA) of Charlottesville, Virginia, under the sponsorship of USEPA.

The front end of the Reporting Tool is an online emission reporting application supported through report and internet servers. The database backend is supported by Microsoft SQL Server. The Reporting Tool leverages the design and fundamental development work conducted for The Climate Registry's Reporting System (CRIS), but contains functionality unique to the specific requirements of the ARB's mandatory reporting regulation.

Core functionality and operations of the Reporting Tool currently includes the following:

- Account management
- Emissions reporting and calculations
- Emissions certification and verification
- Data management (including security), backup, and recovery

In recognition of the need to support reporters subject to the mandatory reporting regulation, the Reporting Tool requires on-going maintenance and support. It is also envisioned that additional reporting elements/fields will be included in the Reporting Tool over time in support of ARB's broader climate change program needs.

## **EXHIBIT A**

### **Statement of Work**

Services and deliverables provided under this contract will focus on the on-going support and maintenance of the Reporting Tool, including hosting/system administration and technical support for ARB staff and the Reporting Tool user base. Contingent upon available funds, enhancements to the existing functionality of the Reporting Tool, as well as the inclusion of reporting fields specific to other ARB climate change efforts, will be requested.

#### **Project Summary**

The ARB's Mandatory Reporting Tool is envisioned as a typical 3-tiered system consisting of database servers, internet servers and web pages, and client desktops. However, the system has distinct functions and unique business requirements associated to GHG emission accounting rules and standards. The project seeks a comprehensive IT solution for the GHG reporting system with both hardware and software components.

#### **Account Management**

The system will support several user groups, each with different roles and privileges. These user groups include, but are not limited to:

- Reporting entities and facilities
- Verifiers
- Internal users
- Super users (System administrators, DBA)
- Interested parties and general public

For account management, the system should have modules for creating new accounts, editing user profiles, changing or recovering passwords, and assigning roles and web page access for particular users.

#### **Emissions Reporting and Calculation**

The system will provide a user-friendly platform and logical workflow for users to enter all required data fields regarding GHG emissions from reporting entities, facilities, devices, processes. The data fields should include activity data, emissions factors, and other parameters characterizing the emissions sources and activities. The system will support online data entry, and data upload in batch files.

The system shall provide sector-specific or process-specific emission calculations/calculators that are context sensitive and intelligent in selecting appropriate emission estimation techniques based on sectors and data availability. These emission calculation tools should implement requirements of both the general reporting rules and sector specific reporting requirements as described in GHG mandatory reporting regulations and guidance documents.

#### **Emissions Verification**

The system must provide modules or web pages that allow verifiers to access emission data provided by reporting entities, and issue electronic verification opinions to both reporting entities and emission records in the system. Authorized verifiers must verify emissions data submitted by reporting facilities prior to data being finalized. The system must allow for a lockdown of the data during the verification process and then the ability for the reporter to submit revised emissions if the verification process identifies any material misstatements.

## **EXHIBIT A Statement of Work**

### **Data Summaries (public access)**

The system must provide standard summary reports on GHG emissions based on a variety of grouping criteria, such as entity, facility, pollutant, industrial sector, and fuel type. The system shall support the output of the report in commonly used file formats, such as PDF, Excel, CSV, and/or text files.

The level of detail of reported data to which public users will have access will be driven, in part, by confidentiality concerns provided to ARB by individual facilities. Therefore, the tool must provide a means for facilities to flag data they deem confidential and/or proprietary.

### **Emissions Analysis Tools (ARB internal use)**

The system must also provide emission analysis tools that track emission trends, produce basic emissions statistics, implement quality assurance/quality control (QA/QC) filtering and flags, generate database queries, and provide data tables with drill-down and scale-up aggregation functions.

### **Data management, backup, and recovery tools**

The system shall provide a set of tools that manage the emissions database, such as editing, adding, and deleting records from database tables. Tools are also needed to perform services such as data backup and recovery.

### **Consistency with Existing Systems**

California is one of the leading members of The Climate Registry (TCR), a collaborative between states, provinces, and tribes aimed at developing and managing a common greenhouse gas emission reporting system. With about 50 participating states, provinces, and tribes from the United States, Canada, and Mexico, TCR will play an important role in voluntary reporting of GHG emissions in North America. To date, TCR has focused on developing reporting protocols and a comprehensive software application for the reporting/calculation of GHGs.

In general, ARB's mandatory reporting regulation will require that more data be reported from reporting entities than is required for voluntary reporting. The proposed TCR voluntary reporting tool is therefore not sufficient for ARB to use for mandatory reporting. However, the development of ARB's reporting tool can leverage the TCR reporting tool by adding additional data fields, database tables, emission estimation algorithms, web pages, query tools, and report forms.

The advantages of building ARB's reporting tool based on the TCR tool include consistency, compatibility, cost effectiveness, and reduced development time. ARB staff will review the current functional specifications for TCR reporting tool, in conjunction with the contractor, and will assess supplementary requirements necessary to meet the ARB mandatory reporting regulations. To a large extent, the ARB reporting tool will be similar to those described by the TCR functional specifications, including system design, functionality, and user interfaces.

### **Tasks**

The contractor, in consultation with ARB staff, will identify hardware and software solutions for the system, including, but not limited to:

- Server type(s)

## **EXHIBIT A**

### **Statement of Work**

- Operating system
- Database engine
- Internet service
- Third-party software
- Programming language
- Software development platform
- Security measures to safeguard system

#### **Deliverables**

ARB expects following key deliverables as milestones at various stages of the project:

##### **System**

- Functional Specifications Document of the ARB mandatory reporting system
- Requirement of hardware configuration and software environment
- System design and software development plan
- Data table definition, data dictionary, and database schema
- Graphic designing and user interface
- Work process charts and control flow charts
- Source code, technical support documentation, and user guidelines
- A testing system and website
- Full technical Support on initial setup of database servers, internet servers, and web pages on both development machines and production machines, at a contractor facility that hosts the GHG reporting services

##### **Meetings**

- Regular meetings shall be held monthly (at a minimum), via teleconference, between ARB and PQA to discuss
  - business requirements, hardware and software options
  - graphic user interface (GUI) design
  - implementation of reporting and verification protocols
  - functions of data analysis and reporting
  - system testing and evaluation
  - other technical issues as needed
- Quarterly meetings shall be held monthly (at a minimum), via teleconference, between ARB and PQA to discuss the progress of the project
- On-site meeting at ARB shall be held as needed to discuss/demonstrate the development and implementation of the on-line reporting system with ARB staff and/or stakeholders.

##### **Reports**

- Monthly/Quarterly Reports
- Prior to meetings, written reports and/or summaries should be submitted to ARB staff to facilitate discussions on progress, issues, and milestones as delineated in the work plan and schedule.
- During meetings, the in-progress version of the system should be demonstrated.
- Monthly itemized reports shall be submitted to ARB indicating the status of the contract expenditures and funds remaining.

**EXHIBIT A**  
**Statement of Work**

**Contractor's Proposal**

Perrin Quarles Associates proposal, marked Exhibit A, Attachment 1, attached hereto and incorporated herein.

**Project Representatives**

The project representatives during the term of this Agreement will be:

State: Air Resources Board (ARB)	Contractor: Perrin Quarles Associates (PQA)
Section: Planning & Technical Support Division (PTSD)	Section:
Attention: Karen Lutter	Attention: Perrin Quarles, President
Address: 1001 I Street, 7 <sup>th</sup> Floor Sacramento, CA 95814	Address: 652 Peter Jefferson Parkway, Ste. 300 Charlottesville, VA 22911
Phone: (916) 322-8620	Phone: (434) 979-3700, ext. 114
Fax: (916) 327-8524	Fax: (434) 296-2860
Email: klutter@arb.ca.gov	Email: perrinquarles@pqa.com

Administrative questions regarding the contract may be directed to:

State: ARB	Contractor: Perrin Quarles Associates (PQA)
Section: PTSD	Section:
Attention: Grace Parker	Attention: Cate Garris
Address: 1001 I Street, 7 <sup>th</sup> Floor Sacramento, CA 95814	Address: 652 Peter Jefferson Parkway, Ste. 300 Charlottesville, VA 22911
Phone: (916) 322-4349	Phone: (434) 817-4145 (direct) General: (434) 979-3700
Fax: (916) 327-2940	Fax: (434) 296-2860
Email: gparker@arb.ca.gov	Email: categarris@pqa.com

**Amendments**

This agreement may be amended upon mutual agreement by both parties, in writing, for additional time, money, or tasks as needed.

## EXHIBIT A, ATTACHMENT 1 Contractor's Proposal

March 13, 2009

California Air Resources Board  
Proposal: May 2009 – June 2010

### I. Purpose

The purpose of this statement of work is to provide ongoing application maintenance and support and selected enhancements for the California GHG Emissions Reporting Tool. In acknowledgement of the importance of providing comprehensive, high quality support and ensuring the continued hosting of the application, we have prioritized ongoing application maintenance and support above all other tasks in our proposal. Certain enhancements and other new development identified by the Air Resources Board (ARB) will be accommodated to the extent possible using the remaining funding as agreed upon by ARB and PQA.

### II. Scope

This section is intended to provide greater detail on the scope of each project area in terms of the tasks included. The estimates provided in Section IV are based on the tasks described below. For additional clarity, there is an additional "Out of Scope Activities" section (Section B) which describes functionality that is specifically not included in these estimates. Please note that this section is not intended to be comprehensive but rather to clearly indicate specific functionality which has been discussed and that might otherwise be assumed to be included.

For the purpose of this proposal, PQA has separated the tasks into three main areas: project administration, ongoing application maintenance and support, and application enhancements and related ad-hoc requests. Project administration and application maintenance and support are regular, recurring activities performed throughout the life of the contract. This includes costs for third party hosting of the application. For this proposal, PQA has assumed a period of 14 months beginning in May 1, 2009 and extending through June 30, 2010. Project administration and application maintenance and support have been estimated for the entire duration.

Application enhancements are intended to capture all discrete tasks not covered by the scope of ongoing application maintenance and support. These can occur at different periods throughout the period of the contract dependent upon ARB's request and PQA's availability.

#### A. Major Project Activities

##### 1. Project Administration

- Monthly progress reports;
- Invoices;
- Project planning;

## EXHIBIT A, ATTACHMENT 1 Contractor's Proposal

CARB Proposal  
March 13, 2009  
Page 2

- Regular calls with the CARB project manager;
  - Creation and management of enhancement task authorizations; and
  - Other contract management activities.
- 2. Ongoing Application Maintenance and Support**
- a. Operations**
- Support for ARB staff;
  - Assistance with system administration, including support for RMA use;
  - Direct support for system users as requested by ARB staff;
  - Remote support for ARB workshops;
  - One on-site meeting (over the life of the contract) with ARB staff and stakeholders (if necessary);
  - Responses to emissions reporting questions, specifically regarding calculations; and
  - Updates to system documentation.
- b. Hosting and System Administration**
- Third party hosting and monitoring, including enhanced security features, such as the web application firewall and SSL certificates;
  - Daily server monitoring and monthly reporting;
  - Coordination with hosting provider for server support and issue resolution; and
  - Ongoing performance assessments.
- c. Technical Support**
- Bug tracking and resolution;
  - Updates to system parameters, such as user group security, emails, etc.;
  - Research for application issues; and
  - Manual database updates required to correct data.

**EXHIBIT A, ATTACHMENT 1  
 Contractor's Proposal**

CARB Proposal  
 March 13, 2009  
 Page 3

**d. Weekly Calls**

- Weekly calls with ARB staff.

**3. Application Enhancements and Ad-hoc Requests**

ARB has developed a proposed list of services. PQA proposes to set aside specific funding as a pool for enhancements, new development, and other related ad-hoc requests to be prioritized by ARB from this list. This approach provides flexibility to address ARB's needs that will continue to evolve as reporters become more involved with the tool and priorities shift. As ARB identifies desired functionality, PQA will gather detailed requirements, develop a cost estimate, and present this information to ARB for approval before beginning work.

**B. Out of Scope Activities**

- Procuring, configuring, and administering a physically separate training environment, including license and hosting costs.
- As discussed in section A, this proposal will only cover application enhancements that can be developed within the allocated budget as requested by ARB and agreed upon by PQA.

**III. Deliverables**

Task Area	Deliverable/Description
Project Administration	Monthly Invoice and Progress Report
Ongoing Application Maintenance and Support	Service Level Agreement: Document specifying the roles and responsibilities of PQA and ARB in the operations and maintenance of the production application.
	Monthly Status Report: Monthly report detailing system use.
Application Enhancements and Ad-hoc Requests	Requirements document: Document specifying the detailed application enhancement requirements.
	Design document: Document specifying the design of application enhancements for which additional design is necessary.
	Cost Estimate: Cost estimate for requested application enhancements.

**IV. Cost Estimate**

**A. Monthly Estimates**

The following monthly estimates for project administration and ongoing application maintenance and support were developed using actual hours required for the support of other

**EXHIBIT A, ATTACHMENT 1**  
**Contractor's Proposal**

CARB Proposal  
 March 13, 2009  
 Page 4

EATS production applications and the hours expended during the beta testing and training use of the California GHG Emissions Reporting Tool. These were adjusted to account for the number of users, complexity of this application, and expected use over the contract period. These monthly estimates serve as the basis for the overall task estimates provided below.

Estimated Labor Hours by Month and Task Area	
Task Area	Estimated Hours/Month
Project Administration	20
Ongoing Application Maintenance and Support	140
Operations	60
Hosting and System Administration	50
Technical Support	40
Weekly Calls	10

PQA has provided monthly Application Maintenance and Support expenses in the following table.

Estimated Monthly Application Maintenance and Support Expenses	
Other Direct Cost	Estimated Cost
Basic Hosting	\$2,325
Web Application Firewall	\$600
SSL Certificate for Production Site Support	\$25
SSL Certificate for Training Site Support	\$25
<b>TOTAL</b>	<b>\$2,975</b>

**EXHIBIT A, ATTACHMENT 1  
 Contractor's Proposal**

CARB Proposal  
 March 13, 2009  
 Page 5

**B. Total Estimated Costs**

Total Estimated Labor Costs		
Task Area	Estimated Hours	Estimated Cost
Project Administration	280	\$27,685
Ongoing Application Maintenance & Support	1,960	\$155,842
Operations	840	\$63,021
Hosting and System Administration	420	\$26,991
Technical Support	560	\$54,163
Weekly Calls	140	\$11,667
Application Enhancements and Ad-hoc Requests	TBD	\$20,655
<b>TOTAL PROPOSED LABOR COST</b>	<b>2,240</b>	<b>\$204,182</b>

Total Estimated Other Direct Costs	
Other Direct Cost	Estimated Cost
Project Administration*	\$4,068
Ongoing Application Maintenance & Support	\$41,650
<b>TOTAL PROPOSED OTHER DIRECT COST</b>	<b>\$45,718</b>

\* Project Administration Other Direct Costs include: monthly progress report/invoice mailings, five hours of phone conferences per week, 20 hours of WebEx meetings for two users, and one three night trip for two PQA staff to ARB offices.

Total Estimated Costs		
Task Area	Estimated Hours	Estimated Cost
Project Administration	280	\$31,753
Ongoing Application Maintenance & Support	1,960	\$197,492
Application Enhancements and Ad-hoc Requests	TBD	\$20,655
<b>TOTAL PROPOSED COSTS</b>	<b>2,240</b>	<b>\$249,900</b>

**EXHIBIT A, ATTACHMENT 1  
 Contractor's Proposal**

CARB Proposal  
 March 13, 2009  
 Page 6

**C. Labor Detail**

Estimated Hours by Labor Category and Staff Person	
Labor Category and Staff Person	Estimated Hours
<b>Senior Consultant II</b>	8
Peggy Quarles	8
<b>Project Manager</b>	330
Drew Price	330
<b>Senior Programmer/Analyst II</b>	460
Tom Slickel	230
Cassie Trontoski	230
<b>Programmer/Analyst II</b>	50
Matt Derby	50
<b>IT Deployment Specialist II</b>	420
James Bond	420
<b>Quality Assurance Analyst II</b>	73
Lisa Citro	73
<b>Senior Environmental Analyst I</b>	230
Tom Wallace	230
<b>Environmental Analyst II</b>	550
John Bedard	550
<b>Contract Manager</b>	16
Frank Durso	8
Perrin Quarles	8
<b>Senior Contract Administrator</b>	19
Cate Garris	19
<b>Contract Administrator</b>	8
Kate Canterbury	8
<b>Assistant Contract Administrator</b>	19
Courtney Remington	19
<b>Communication Specialist I</b>	57

(cont.)

## EXHIBIT A, ATTACHMENT 1 Contractor's Proposal

CARB Proposal  
March 13, 2009  
Page 7

Estimated Hours by Labor Category and Staff Person	
Labor Category and Staff Person	Estimated Hours
Beth Arnold	19
Courtney Modecki	19
Lauren Schnyer	19

### D. Billing Procedures

PQA proposes a Time and Materials (T&M) Not-To-Exceed contract to perform the work described in this proposal. Until January 23, 2010, PQA will use the T&M rates that were used under the previous ARB contract (Agreement No. 08-755). Effective January 24, 2010, PQA's T&M rates will increase by our standard 4% escalation rate, and will be valid through June 30, 2010 (PQA's annual raises are effective as of January 24 each year). Please note the addition of three new labor categories: IT Deployment Specialist II, Contract Manager, and Senior Contract Administrator. These additions accurately reflect the appropriate staff that will add value to this contract. A schedule of rates has been provided in a separate document.

PQA will invoice ARB on a monthly basis based on the hours and ODC's incurred. With each invoice, PQA will provide a progress report which will detail the technical work performed during the period, any issues or problems encountered during the period, and work to be performed during the next reporting period. Please note that PQA's billing cycle reflects activities performed between the 24th and 23rd of a month, with invoices being delivered on or before the 5th day of the following month (e.g., reporting period would be September 24 through October 23, with an invoice being delivered by November 5). PQA requests payment within 30 days of receipt by ARB.

## EXHIBIT A, ATTACHMENT 1 Contractor's Proposal

April 8, 2009

### **John Bedard**

Mr. Bedard will be an Environmental Analyst II for this contract. His academic background includes a Bachelor of Arts in Environmental Science and Interdisciplinary Environmental Thought and Practice from the University of Virginia in 2006. Since joining PQA in 2007, Mr. Bedard has provided assistance with analytical projects involving greenhouse gas (GHG) emissions inventories and emissions trading. These projects involve analyzing reporting protocols and regulations, along with managing client expectations and translating these requirements into software additions. Mr. Bedard is also a key contributor and subject matter specialist on GHG protocols and calculations. He is engaged in GHG calculation methodology development and has supported the development of the calculation and interface infrastructure for several projects. Specifically, Mr. Bedard serves as an environmental data analyst and tester for the Emissions and Allowance Tracking System (EATS), a generic software application to support emissions trading programs for use by other countries and state programs. He supports the design and development of the EATS-based California Air Resources Board (ARB) Mandatory Emissions Reporting System. For this project, he provides assistance for requirements gathering, use case development, interface design, and business process documentation. He also manages client relations, designs user interface, and serves as a subject matter specialist for annual reporting flows. For the Climate Registry Information System (CRIS), also an EATS-based system, Mr. Bedard serves as a subject matter specialist for GHG calculations, provides software testing, and supports user interface design. He is also an environmental data analyst for the design and development of the U.S. Greenhouse Gas Inventory, a database and application to house and support EPA's U.S. Greenhouse Gas Inventory, submitted annually to the UNFCCC Secretariat as part of the U.S. obligation under the Framework Convention on Climate Change. Under this project, he is responsible for data analysis, user interface design, and software testing.

### **James Bond**

Mr. Bond will be a IT Deployment Specialist II for this contract. His academic background includes a Bachelor of Arts in Professional Writing from Carnegie Mellon University. Since joining PQA in 2008, Mr. Bond has provided corporate IT support, performing a variety of IT support tasks, including backup management, user support and troubleshooting, network maintenance, system and process documentation, hardware setup and maintenance, and software installation and troubleshooting. He is also a system deployment manager for the Emissions and Allowance Tracking System, providing SQL Server database administration and managed-hosting-provider coordination. Mr. Bond has five years of professional IT experience involving network creation, system administration, computer troubleshooting, and software development. His extensive technology skills are strengthened by an extensive documentation background and Professional Writing degree courses.

### **Lisa Citro**

Ms. Citro will be a Quality Assurance Analyst II for this contract. Her academic background includes a Bachelor of Science in Biology from James Madison University in 2002, where she graduated Cum Laude, and a Master of Science in Marine-Estuarine-Environmental Sciences

## EXHIBIT A, ATTACHMENT 1 Contractor's Proposal

PQA Bios  
April 8, 2009  
Page 2

from the University of Maryland in 2004. Since joining PQA in 2007, Ms. Citro has served as an environmental data analyst and quality assurance specialist for projects involving data systems that support voluntary emissions reporting and emissions trading programs, including Emissions and Allowance Tracking System (EATS)-based registry systems. For the California Air Resources Board (ARB) Mandatory Emissions Reporting System, Ms. Citro is a quality assurance specialist for the design and development of the EATS-based system which supports the State of California's AB-32 mandatory greenhouse gas (GHG) reporting regulation. She provides similar support for numerous instances of EATS, including the Regional Greenhouse Gas Initiative's CO<sub>2</sub> Allowance Tracking System (COATS), the Climate Registry Information System, the Canada Kyoto Protocol National Registry (CKPNR) and the New York Acid Deposition Allowance Tracking System (NADATS).

### **Matt Derby**

Mr. Derby will be a Programmer/Analyst II for this contract. His academic background includes a Bachelor of Science in Information Systems Management from Brigham Young University's Marriot School of Management in 2005. Since joining PQA in 2008, Mr. Derby has served as a software developer for projects involving the customization of the Emissions and Allowance Tracking System (EATS), a generic software application to support emissions trading programs for use by other countries and state programs. He currently supports the design and development of the EATS-based California Air Resources Board (ARB) Mandatory Emissions Reporting System as well as the Climate Registry Information System (CRIS). He also supports the development of the Kyoto Protocol-compliant national registries for Australia and Canada, which involves executing performance tests to gauge how the registry application will perform under various user loads deployed on a variety of hardware profiles, developing enhanced user registration and login request processing functions, and performing other software development tasks. Prior to joining PQA, Mr. Derby served in numerous capacities as a senior software and systems engineer.

### **Tom Herrick**

Mr. Herrick will be a Senior Technical Lead for this contract. His academic background includes a Bachelor of Science in Information and Computer Science from the Georgia Institute of Technology, where he graduated with High Honors in 1989. Since joining PQA in 2009 as a contract employee, Mr. Herrick serves as a software technical lead for projects involving the development of Emissions and Allowance Tracking System (EATS)-based registry systems. Mr. Herrick has extensive experience in developing and managing web solutions, e-commerce systems, information technology architecture, system integration, and software development. As an independent consultant, Mr. Herrick's work has included the production of software and firmware to drive, manage, and monitor an open path hazardous chemical detection system, which involved leading a team of developers. He has also served as a senior manager of software development, directing teams of internal and outsourced developers building applications using both Java and .Net technologies.

## EXHIBIT A, ATTACHMENT 1 Contractor's Proposal

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April 8, 2009  
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### **Zach Munzenrider**

Mr. Munzenrider will be a Senior Programmer/Analyst II for this contract. His academic background includes a Bachelor of Arts degree from Pennsylvania State University in 1990 and a Master of Arts degree from the University of Virginia in 1994. Mr. Munzenrider is a specialist in web/database system design, database modeling and implementation, technical writing and training. Mr. Munzenrider joined PQA in 2001 and has been assigned to PQA's systems development team as a senior programmer for the development of emissions trading registries under the Kyoto Protocol, including the CDM Registry and the national Kyoto registry for New Zealand and Canada. For the U.S. EPA's Climate Change Division, he served as the technical lead and developer for EATS, a generic emissions trading software application developed by EPA to support emissions trading programs in other countries and agencies. Mr. Munzenrider has supported the customization of the EATS application for use as the New York Acid Deposition Allowance Tracking System (NADATS) for the New York State Department of Environmental Conservation and the Climate Registry Information System (CRIS) for The Climate Registry. Currently, Mr. Munzenrider provides web and database development for several applications supporting EPA's Clean Air Markets Division as well as serves as a developer for the EATS-based California Air Resources Board (ARB) Mandatory Emissions Reporting System, which will implement the State of California's AB-32 mandatory GHG reporting regulation. His technical expertise encompasses a wide range of skills including ColdFusion, JavaScript, Java, AJAX, Oracle and SQL server databases, web services, and XML.

### **Drew Price**

Mr. Price will be a Project Manager for this contract. His academic background includes a Bachelor of Science degree in Aerospace Engineering from the University of Virginia, where he graduated in 2000. Mr. Price joined PQA in August 2004 and is currently a project manager for systems development, including all projects involving customization of the Emissions and Allowance Tracking System (EATS) developed by PQA under contract to EPA. He is currently providing overall management and planning support for all EATS projects, which include the Climate Registry Information System (CRIS), the CO<sub>2</sub> Allowance Tracking System (COATS) for the Regional Greenhouse Gas Initiative, Inc., the New York Acid Deposition Allowance Tracking System (NADATS) for the New York State Department of Environmental Conservation, and the Mandatory Emissions Reporting System for the California Air Resources Board (ARB). Since joining PQA, Mr. Price has also managed the development and deployment of EPA's Data and Maps website for emission trading programs. He also served as co-project manager for the Emissions Collection and Monitoring Plan System (ECMPS), a software application that facilitates data submission to EPA as part of emissions trading programs under Part 75. In this role, he managed the design, development, and testing of an estimated 2,000 data checks that validate data submitted to the EPA. Mr. Price also provides data analysis and database development support for the Emissions and Data Analysis Trends (EDAT) tool, developed by the EPA to analyze emissions, meteorological, acid deposition, and air quality data. He has supported the implementation of new emissions trading programs under the Clean Air Interstate Rule and Clean Air Mercury Rule. Prior to PQA, Mr. Price worked for four years as a software development consultant for both public and private clients. His most recent role

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was as a manager for development of major data systems for the Department of Treasury. His technical skills include Oracle and SQL server databases, ASP, JavaScript, VB Script, and other programming languages.

### **Peggy Quarles**

Ms. Quarles' role will be Senior Consultant II for this contract. Ms. Quarles is currently Senior Vice President and Manager of the Program Implementation Division at PQA. Her academic background includes a Bachelor of Arts degree from the University of North Carolina, where she graduated *Phi Beta Kappa* in 1972, and two years' attendance at the University of Virginia School of Law. Ms. Quarles also offers expert-level experience in the design and implementation of national and global emissions trading programs. Ms. Quarles is an experienced project manager of projects involving air pollution control program implementation, and information system design, development, and deployment. She is a recognized expert in the information system requirements for National Registries, the CDM Registry, and the International Transaction Log (ITL) for the Kyoto Protocol. In her 24 years at PQA, Ms. Quarles has been the project manager of numerous projects, including two major information system reengineering efforts for EPA. She is also the project manager for the development of the EATS application for U.S. EPA and serves as a project manager or senior consultant for the development of all programs and applications based on EATS.

### **Tom Stickel**

Mr. Stickel will be a Senior Programmer/Analyst II for this contract. His academic background includes a Bachelor of Science in Information Systems from Purdue University in 1998 and a Software Engineering certificate from the University of Advancing Computer Technology in 1999. Mr. Stickel is a trained software engineer with 14 years experience with the architecting and development of multi-tiered web-based applications using Visual Basic, .Net, ColdFusion and Java technologies in SQL and Oracle environments. Since joining PQA in 2006, Mr. Stickel has been engaged in projects working with the U.S. EPA, and is accustomed to managing large volumes of emissions and inventory data. Specifically, he served as a lead developer for Data and Maps, the publicly accessible, web-based interface to data collected as part of EPA's emissions trading programs. He designed and developed standard reports, custom queries, GIS maps, graphs, and prepackaged data sets. Mr. Stickel also provided system support for the Applicability Determination Index, a web-based application displaying EPA's air program applicability determinations. Currently, Mr. Stickel is a developer for several systems based on the Emissions and Allowance Tracking System (EATS), a generic software application to support emissions trading programs for use by other countries and state programs. These systems include Canada's National Registry under the Kyoto Protocol for Environment Canada and the California Air Resources Board (ARB) Mandatory Emissions Reporting System. Mr. Stickel also has prior experience designing e-commerce portals, dynamic web applications and provided Enterprise Management solutions.

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### **Cassie Trontoski**

Ms. Trontoski will be a Senior Programmer/Analyst II for this contract. Her academic background includes a Bachelor of Arts degree from Virginia Wesleyan College, where she graduated *Summa Cum Laude* in 1997, and a Master of Computer Science degree from the University of Virginia in 1997. Ms. Trontoski has over ten years experience working with large-scale information systems, including reengineering projects for U.S. EPA and international support projects. As a senior programmer for registry systems based on the Emissions and Allowance Tracking System (EATS), she offers expert knowledge of emissions trading program information systems requirements and the implementation of data exchange standards for the Kyoto Protocol. For the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat, she has been the technical analyst developing the Web Service Description Language (WSDL) protocols, a key technical component of message exchange under the Kyoto Protocol. Ms. Trontoski has provided programming support for EATS-based systems including the Clean Development Management (CDM) Registry for the United Nations Framework on Convention Change (UNFCCC), the New York Acid Deposition Allowance Tracking System (NADATS), the New Zealand Emission Unit Register, the World Bank Carbon Asset Registry and Reporting System, the CO<sub>2</sub> Allowance Tracking System (COATS) for the Regional Greenhouse Gas Initiative, Inc., and the California Air Resources Board (ARB) Mandatory Emissions Reporting System.

### **Tom Wallace**

Mr. Wallace will be a Senior Environmental Analyst I for this contract. His academic background includes a Bachelor of Science in Environmental Science and Music from Allegheny College in 1997 and a Master of Earth Environmental Resources Management from the University of South Carolina in 1999. Mr. Wallace's technical qualifications include over ten years experience in database design and development and web implementation to support data-entry, data analysis, and report generation for large federal and private clients. Since joining PQA in 2007, Mr. Wallace has served as a senior quality assurance specialist and reports designer for projects involving data systems supporting emissions trading programs and the management of emissions reduction assets. Specifically, he provides technical support for the International Transaction Log (ITL) for the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat and serves as a developer and report design specialist for numerous systems based on the Emissions and Allowance Tracking System (EATS), a generic software application to support emissions trading programs for use by other countries and state programs. These systems include the World Bank Carbon Asset Registry and Reporting System (CARS), the Climate Registry Information System (CRIS) for The Climate Registry, and Canada's National Registry under the Kyoto Protocol for Environment Canada, as well as the CO<sub>2</sub> Allowance Tracking System (COATS) for the Regional Greenhouse Gas Initiative, Inc., the Mandatory Emissions Reporting System for the California Air Resources Board (ARB), and Australia's emissions trading registry software solution that both meets Kyoto Protocol requirements and supports the operation of Australia's proposed domestic emissions trading scheme, the Carbon Pollution Reduction Scheme.

**EXHIBIT B**  
**Standard Agreement**

**BUDGET DETAIL AND PAYMENT PROVISIONS**

**1. Invoicing and Payment**

- A. For services satisfactorily rendered, and upon receipt and approval of the invoices, the State agrees to compensate the Contractor for actual expenditures incurred in accordance with Exhibit A, Attachment 1 and Exhibit B, Attachment 1, which are both attached hereto and made a part of this Agreement.
- B. Invoices shall include the Agreement Number and shall be submitted in triplicate not more frequently than monthly in arrears to:

Air Resources Board  
Accounting Section  
P.O. Box 1436  
Sacramento, CA 95812

**2. Budget Contingency Clause**

- A. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the State shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.
- B. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either cancel this Agreement with no liability occurring to the State, or offer an agreement amendment to Contractor to reflect the reduced amount.

**3. Prompt Payment Clause**

Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927.

**4. Travel**

Any reimbursement for necessary travel and per diem shall be at rates not to exceed those amounts paid to State of California employees or verification supplied that indicates such rates are not available to Contractor. All travel reimbursements and per diem shall be at the rates set by Department of Personnel Administration.

**EXHIBIT B, ATTACHMENT 1**  
**Standard Agreement**

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**PQA's Time and Materials Rates for ARB**

Category	Rate (May 1, 2009 – Jan. 23, 2010)	Rate (Jan. 24, 2010 – Jun. 30, 2010)*
Senior Consultant II	\$165.36	\$171.97
Senior Consultant I	\$99.84	\$103.83
Project Manager	\$97.76	\$101.67
Senior Technical Lead	\$113.76	\$118.31
Senior Programmer/Analyst II	\$99.84	\$103.83
Senior Programmer/Analyst I	\$91.52	\$95.18
Programmer/Analyst II	\$85.28	\$88.69
Programmer/Analyst I	\$73.84	\$76.79
IT Deployment Specialist II	\$63.36	\$65.89
Senior Quality Assurance Analyst II	\$96.72	\$100.59
Quality Assurance Analyst II	\$68.64	\$71.39
Quality Assurance Analyst I	\$52.00	\$54.08
Senior Environmental Analyst I	\$89.44	\$93.02
Environmental Analyst II	\$66.56	\$69.22
Environmental Analyst I	\$50.96	\$53.00
Communication Specialist II	\$58.24	\$60.57
Communications Specialist I	\$50.96	\$53.00
Contract Manager	\$139.80	\$145.39
Senior Contract Administrator	\$81.43	\$84.69
Contract Administrator	\$73.84	\$76.79
Assistant Contract Administrator	\$56.16	\$58.41

\* Effective January 24, 2010, PQA's T&M rates will increase by our standard 4% escalation rate, and will be valid through June 30, 2010.